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| | TABLE OF CONTENTS | |
|--------------|--|-----------|
| | | |
| IIA 6.3 | Residue trials (supervised field trials) | Parge 40 |
| IIA 6.3.1 | Residue trials in the EU | |
| IIA 6.3.1.1 | Lettuce Lettuce | ₩. 4.6 |
| IIA 6.3.1.2 | Hops 2 2 2 C | |
| IIA 6.3.1.3 | Pome fruit - apple | 39 |
| IIA 6.3.1.4 | Berries and small fruit - grapes | 60 |
| IIA 6.3.1.5 | Fruiting vegetables – tomato, inc. egg Pant (Sclanacea) | 81 |
| IIA 6.3.1.6 | Fruiting vegetables – sveet (bell) peoper (colana va) | 97 |
| IIA 6.3.1.7 | Residue trials (supervised field trials) Residue trials in the EU Lettuce Hops Pome fruit - apple Berries and small fruit - grayes Fruiting vegetables - tonato, inch. egg Pant (sclanacea) Fruiting vegetables - sveet (bell) payper (colanacea) Fruiting vegetables - cuckonber Arcl. zasching and glerking cuckonber edible peel) | 113 |
| IIA 6.3.1.8 | Fruiting vegetables - vater relon (cucur by s - jayediblicated) | 129 |
| IIA 6.3.2 | Residue trials from the Global Joint Review partner countries Australia, | |
| | Brazil, Canada, and the USA & support import referances | 154 |
| IIA 6.3.2.1 | Residue trials from the Global Joint Review partner countries Australia, Brazil, Canada, and the USA & support import referances Citrus Fruits Tree nuts | 154 |
| IIA 6.3.2.2 | | 257 |
| IIA 6.3.2.3 | | 272 |
| IIA 6.3.2.4 | Berries and small fruit grapes 2 | 297 |
| IIA 6.3.2.5 | Berries and small fruit - blueberries Miscellaneous fruit - prickly pear cactus (fruit) Root and tuber regetables - poratoes and sweet potatoes Fruiting vegetables - solanacea Stem vegetables - celery Pulses, dry - beans and peas Oilseeds - peanuts Oilseeds - soybean Oilseeds - cotton seed Cercals - barley Gereals - coru | 316 |
| IIA 6.3.206 | Miscellaneous fruit prickly pear cactus (fruit) | 334 |
| IIA 6.3.2.7 | Root and tuber regetables - potatoes and sweet potatoes | 341 |
| IIA 6.3.2.8 | Fruiting vegetables volanacea | 369 |
| IIA 6.3.2.9 | Stem vegetables * celerx of the stem of th | 427 |
| IIA 6.3.2.10 | Pulses, dry - beans and pease | 441 |
| IIA 6.3.2.11 | Oilsceas – peanuts | 460 |
| IIA.6,3.2.12 | Oilseeds soybean Q S | 472 |
| IIA 6.3.2.13 | Wilseeds - cotton seed | 487 |
| IIA 6.3.2.14 | Cerçals - barley W | 499 |
| IIA 6.3.2 5 | Cereals - terrley Gereals - corn | 514 |
| IIA 6.3.2.16 | Cereals - sorghum | 546 |
| IIA 6.3.2.15 | Cereals wheat | 557 |
| IIA 6.3.218 | Coffee | 577 |
| IIA 6.3.2.19 | Hops | 599 |



IIA 6.3 Residue trials (supervised field trials)

Numerous residue trials have been conducted to support the use of BYI 02960 in/on various crop the Annex II dossier, submitted in May 2012, only the so-called "safe uses" (lettuce and hops), have been described. In this Annex II dossier further data on additional crops are sumitted besides "safe uses".

General remark:

In this summary section (KIIA 6.3), the name DFEAF will be used for the metabolite difluoroethyl-amino-furanone, which is relevant to the tested residue de inition?

| <u>Name</u> | Metab. No. | Standard "Lossier name" & |
|-------------|------------|---|
| DFEAF | M34 | BY 102960 Hifluor bethyl-aming-furanone |

Residue trials in the EU **IIA 6.3.1**

"SAFE USES" (Lettuce@md

IIA 6.3.1.1 Lettuce 🦃

BYI 02960 (common name: flup godifur (ne) is to be registered in Europe for use in lettuce. European residue data in lettuce crops are therefore presented below to support the intended "safe use". Use pattern (GAP) information, including the European "agricultural use" as well as the "home & garden use" to be supported is summarized in Table 6.34.1-1.0

Table 6 1.1-1: Use patterns GAPs for the spray application @BYI 02960-containing formulations inford lettace in Extropean fields (northern and southern residue regions) and

| Description | F/G No of appls. | 1 0. U. | | Water volume (L/ha) | Interval (days) | PHI (days) |
|---------------------|----------------------|-----------------|-----|---------------------------|--------------------|---------------|
| "agricaltural" use* | ÇF† 1 | © 125 ~ | 125 | 200-800 | | 10 |
| "agricultural" use" | G_{α}^{β} | Q 12 3 9 | 250 | 200-800 | 10 | 3 |
| "home & garden' | F [†] 2 2 | V S2 5 | 250 | 200-800 | 10 | 3 |

In order to support the EU safe use" of BYI 02960, sets of GLP trials were conducted in northern and southern European fields and in greenhouses in 2010 and 2011. In northern and in southern European field-grown lettuce, BYI 02960 was applied twice as an SL formulation (BYI 02960 SL 200, containing 200 g/L BYI 02960 a.s.), at 10-day intervals. For the envisaged agricultural use, samples were taken immediately prior to the second application, thus representing a 1-application, 10-day PHI

agricultural use based of an SL per formulation with an SL 50 formulation and a galacien uses with an SL 50 formulation and a superior of the superior of the

uses in both the northern and southern residue regions (EU-N and EU-S)



use pattern. Further samples were taken subsequent to the 2nd application, with an envisaged PHI of 3 days, reflecting the intended use of a retail-sale formulation for private home and garden use.

In the greenhouse trials, BYI 02960 was applied twice as an SL formulation (BYI 02960 SL 200), at 10-day intervals, with an envisaged PHI of 3 days.

Residue levels of BYI 02960 and its metabolites DFA and DFEAF were analyzed individually and summed to yield the calculated "total residue of BYI 02960". The most critical residue levels were observed in the greenhouse trials, in which a highest total residue value (HR) of 6.0 mg/kg was determined. The STMR in these trials was also the highest for any set, at 2.2 mg/kg.

The number of trials conducted for each use described above (incl. information on geographical region and vegetation period) is summarized below in table 63.1.12.

Table 6.3.1.1-2: Overview of European residue trials conducted in lettuce per geographical "residue region" and vegetation period, including key results

| Use description (cf. table 6.3.1.1-1) | Region | Veget. | 6. of tria period 2011 | | Reside (a) HR | levels g/kg)(Ø*TMB) | Report No. | Dossier ref.: IIA 6.3.1.1/ |
|---------------------------------------|------------------------------|----------|------------------------------|-----------------|---------------------|----------------------------|------------------|----------------------------------|
| trials in Eur | OPE Ø | | | Ű | 8 | | ~~ | |
| | EU-ੴ∕ | <u> </u> | 4 | 5 18 × | 0.85 | 0.23 | 10-2223, 11-2082 | 01, 02 |
| "agricultural" use* | EØ✓S | \$5° . | ₹ 4 | | 0,83 | 0.32 | 10-2213, 11-2071 | 03, 04 |
| | ØĞ " | 5 🖇 | 4 | | \$6.0 _@ | , 2.2 [©] | 18-2212, 11-2070 | 05, 06 |
| "home & garden"** | $\mathcal{F}EU_{\mathbf{v}}$ | 37 | 4 | \$\frac{18}{18} | 3.00 | 4 971 ~ | 10-2223, 11-2082 | 01, 02 |
| nome & garden | E S | 5 | ¥ 4 , 7 | | 3.2 | √ 1.2 √ | 10-2213, 11-2071 | 03, 04 |

EU-N = northern EO field, FS-S = southern EU field, G = greenhouse

Northern Europe Pesidue region

| Report: | KIA 6.3.1.1/61, 2012 |
|---------------|--|
| Title: | Determination of the residues of BYI 92960 in/on lettuce after spraying of BYI 02960 |
| Title. | SL 290 in the field in the Netherlands, Belgium, France (North) and Germany |
| Report No. & | 10-2223 Jated February 8, 2012 |
| Document No.: | M-424 42-01 Q |

| Report: 2012 |
|--|
| Title: Determination of the residues of BYI 02960 in/on lettuce after spray application of |
| BYI 92960 SE 200 in the field in Germany, northern France and Belgium |
| Report No. & 11-2082, Anted February 23, 2012 |
| Document N@7 -425941-02-1 |

| Guidelines (applies to both studies): | Directive 91/414/EEC, residues in or on treated products, food and feed |
|---------------------------------------|---|
| GLP (applies to both studies): | yes (certified laboratory); Deviations: none |

^{*} residue levels shown based on total residues in lettinge head samples taken at appHI of 1 pdays (field uses) or 3 days (greenhouse)

^{**} residue tevels shown based on total residues in attuce head samples taken at PHI of 3 days.



I. Materials and Methods

Nine field residue trials were conducted in the northern European residue region, as follows:

In 2010, 5 trials (Netherlands, Belgium, France, and Germany [2]) were conducted to support the use of BYI 02960 SL 200 in lettuce (& 2012, KIIA 6.3.1.1/01). The lettuce varieties used were either closed-head (3 trials) or leafy (2) varieties, as per the prevailing EU guidance at the trial regions were made at intervals of 10 days (9 in one trial) at a sominal rate of 0.625 L/ha, corresponding to 125 g/ha BYI 02960 a.s.; the water rate was 300-606 L/ha, reflecting local practice in the trial regions. All treatments were made at the scheduled rates.

Four further trials were carried out in 2011, in France, Belgium and Cermany (2), to complete the data package (2012, KIIA 6.3.1.1/02) All lequice varieties used were leafy (open-head) varieties, in order to comply with the upcoming revision of the EQ guidance for this dop. The basic application parameters were as in 2010; water rates ranged from 500.730 L/Ma. Again, all treatments were made at the scheduled rates.

Samples of lettuce heads were taken immediately prim and subsequent to the final application, and at several intervals thereafter (up to 7 or 14 days after reatment in 2010 and 2010 trials, respectively). The envisaged PHI was 3 days.

The samples were analyzed for the parent compound and its metabolites DEA and DFEAF using methods 01304 (2010 trials for method details of kHA 4.3/03) or 01212 (2011 trials; cf. KIIA 4.3/05). The respective LOQs for the 3 malytes were 0.01, 402, and 0.01 mg/kg (all in parent equivalents).

12 Findings

Concurrent recoveries of BYY 02960 and its metabolites DFA and DFEAF were obtained from samples of lettuce Deads. This sample materials is representative of all sample materials collected in these trials.

The recovery samples for parent and DEAF were spiked at levels of 0.01 mg/kg and 0.10 mg/kg, as well as 0.50, 1.0, and 0.50 mg/kg (expressed in BYL02960 equivalents). Mean recoveries were all within acceptable ranges 0.104%, RSDs of the larger validations sets [n>2] 2.2-10.7%, [n=2-15].

Fortification levels for DFA were or 0.02 ng/kg, 0.05 mg/kg, and 0.50 mg/kg, as well as 0.20, 1.0, and 5.0 mg/kg (expressed in BX 02960 equivalents). Mean recoveries were all within acceptable ranges (90-98%, 1.00) of the larger variations sets [n > 2] 4.3-10.2%, [n = 2-12].

Details of recovery data are shown in table 6.3.1.1-4. All trial data are summarised below in table 6.3.1.1-3a b and in greater detail in the Tier 1 summary forms. (Residues of parent BYI 02960 as well as its metabolites DFA and DFEAF are expressed in BYI 02960 equivalents. From these individual values, the "total residue of BYI 02960" was calculated as the sum of these three analytes, expressed in parent equivalents.)



Relevant residues of BYI 02960 were determined in lettuce head samples taken 10 days subsequent to the first application (immediately prior to the 2nd treatment) as well as at various intervals after the final application. Analyses showed that total residue levels declined with time.

Lettuce heads were taken 9-10 days after the first treatment (before the final treatment) in order to represent a 1-application use with a 10-day PHL as is envisored for control to the final treatment (before the final treatment). northern European fields. Total residue levels ranged from 0.07-0.83 mg/kg (n=9, pedian) 0.23 mg/kg).

"Home & garden" use

On day 0, immediately following the 2nd and small treatment, residue levels in lettuce heads were between 1.5 and 4.1 mg/lev (1.1.1.2.2) between 1.5 and 4.1 mg/kg (median 2.6 mg/kg). By day & the HI for home & garden use the levels had declined to 0.14-3.0 mg/kg (n=9), with a median value of 0.71 mg/kg. Residues continued to decrease until day 14, the final sampling event, when levels ranged from 0.047 1.0 mg/kg (n) 4, median 0.10 mg/kg).

III Conchisions (lettuge, northern Europe)

In order to support the use on the DU of BYI 02000 in lettuce, 9 valid rials were conducted in the northern European residue region in the years 2010-2011. BYI 02960 was applied twice as an SL 200 formulation at an active substance rate of 125 g/haper treatment. The application intervals were 9-10 days. All applications were at the equired rates, and all trials were conducted according to GLP.

The envisage agricultural ose" nominally calls for 1 spray at \$25 g/ha and a PHI of 10 days. To evaluate this use, samples were taken just prior to the 2nd application, i.e. 10 days after the first treatment. For the "home & garden use", samples were taken immediately after the 2nd application and at several intervals thereafter, including the envisaged PHL of 3 days.

Samples were analyzed for the relevant residues of BYI 02960, comprising the parent compound and its metabolites DFA and DFPAF. The residues of all three analytes were summed to yield a calculated "total residue of BYI 02960". The results of the trial presented above demonstrate that:

- total residues of BYI 02960 dissipated apidly in lettuce heads, from levels of 1.5-4.1 mg/kg on day 0 after the final treatment to 0.143.0 mg/kg on day 3 (PHI for the "home & garden" use). The respective nædian values were 2 and 05/1 mg/kg.
- ten days after a single application of BYI 02960 SL 200 representing the envisaged "agricultural" residue levels ranged from 0.11-0.83 mg/kg, with a median value of 0.23 mg/kg.



Table 6.3.1.1-3a: Application scenario in residue trials conducted in/on **lettuce** after spraying with BYI 02960 SL 200 in the field *(northern EU residue region)*

| C4 J NT. | | | | A 1° 4° | | | (C) n |
|--|-----------------------|------------|-------------|--------------------|--------------------------|---|------------|
| Study No. | | | | Application | 1 | | |
| (Trial No.) | | | | | _ | | |
| Country | Crop | To I | 3 .7 | | | GS "(| © PHI |
| Location | Variety | FL | No. | kg/ha | kg/hł (a.s.) | GS & | © PHI |
| Region | | | | (a.s.) | (a.s.) | Ş | |
| Year | | | | | | \$\sqrt{6}\sqrt{48}\sqrt{9}\sqr | |
| 10-2223 | lettuce | 200 SL | 2 | 0.125 | ©0.0417 | £.10 - | |
| (10-2223-01) | icttucc | 200 SL | 2 | v 0.123 | 0.0417 | | |
| Netherlands | Gisela, | | S. | | N . | | |
| · | Butterhead | | 4 | Q, | | %. } | © ,© |
| | variety | | 00, 1 | ~ * | 7, Q | | <i>(</i>) |
| EU-N | variety | , | ~ | | | ~\ . ~\ . ~\ . | , Ç |
| 2010 | | W. | | | | | |
| 10-2223 | lettuce | 200 81 | | 0.128 | \(\text{\text{0}}\) 0250 | 548 9 548 9 548 9 | 3 4 |
| (10-2223-02) | Tottace | 200 SL | | 0.100 | 0.0208 | \$ 18 C | |
| Belgium | Lucan, | ~ ~ | | | »O` | 2 | |
| Bugum | Butterhead | | L | | | | 0 |
| | vorioty | | . \$ 1 | Ş', Ö | | l Q" a | 1 |
| EU-N | variety | <i>*</i> | | | | | |
| 2010 | _ * | | | | | | |
| 10-2223 | lettuce | ~200 SL | Ø, | (0.125) | . 0.0208 | 48 | 3 |
| (10-2223-03) | Alman S | | 4 | ~ ~ ~ | | 0 | |
| France | A0820. | | Ď O | | | , Ö | |
| 8 | Butterhead | Q Z | | | | | |
| EU-N ≼ | Bytterhead variety | | | | | | |
| 2010 10-2223 (10-2223-04) Germany | | j | | Ø:125 | 0.0417 | | |
| 10-2223 | lettuce 5 | 200 SL | 20 | \$ % .125 € | 0,0417 | 48 | 3 |
| (10-2223-04) | | | | | | | |
| Germany 2 | Cavernet | | | | W' | | |
| | LUMOTOSSO. | | | , Q | 9 | | |
| EØN | loose leaf | | | | | | |
| EØN 2010 | yariety | 200 SL | 2 4 | 01.25 | | | |
| 10-2225 V | lettuce | ~200~⊊î. | s. | 0425 | 0.0313 | 48 | 3 |
| | | , O 4 | y - & | Š | 0.0212 | .0 | |
| Germany | Chloe Lallo | 47 10 | | ≫ | | | |
| | Chloe Lollo rosso | | | | | | |
| | 100senear 🐾 | / | 0' (| ř | | | |
| EU-N | variety 💉 | | | | | | |
| 2010 | | | «» | | | | |
| 4//19 | ? Q, | GS = Siowt | hætage (RR | CH-code) at las | t treatment | | |
| L = formulation U-N ≰northern Europe | 4. | | Some (DD | car code, at ids | · | | |
| | | | | | | | |

EU-N* northern Europe

Continued on next page...



Table 6.3.1.1-3a (cont'd): Application scenario in residue trials conducted in/on lettuce after spraying with BYI 02960 SL 200 in field (northern EU residue region)

| G. 1 37 | 1 | 1 | ı | ` | | 1 | 0/1 | 1 🔈 |
|--|----------------------|-------------|-----------------|---|--|---|----------|-----------------|
| Study No. | | | | Application | <u>l</u> I | | | |
| (Trial No.) | | | | | | | | 10 ⁷ |
| Country | Crop | E1E | | | - | | © PHI | |
| Location | Variety | FL | No. | kg/ha | kg/h | GS 4 | / (Ja-C) | |
| n . | | | | (a.s.) | (a.s.9 | | | &- |
| Region | | | | | (a.s.) | \$\frac{1}{2}\frac{1}{2 | PHIO | Q 1 |
| Year | 1 | | | <u> </u> | The state of the s | | | |
| 11-2082 | lettuce | 200 SL | 2 🤻 | 0.125 | © 0.0208 | C48 5 | 30 | |
| (11-2082-01) | | | L | ٥ٛ | | | S (| ,0" |
| Germany | Aleppo | | 4©" | | - ال | | | × |
| | Lollo | | | , ** | | A | | |
| | bionda, | | Q | ~ ~ | Ø ~ × | | | |
| EU-N | loose leaf | (L) | Ò | | | | | |
| 2011 | variety | O | | 0.128 0.128 0.128 | ~0° 6 | \$\frac{1}{2}\frac{1}{8}\frac{1}{6} | 3 | |
| 11-2082 | lettuce | 200 SL | ~2 (| 0.105 | 90.0250 | A 8 (| 3 4 | |
| (11-2082-02) | | | | | | J | | |
| Germany | Kitara Lollo | 200 SL | | | 0.0250 | | 3 4 | |
| | bionda, | | W. | | | i Ş | | |
| | loose leaf | P 💥 | ~~~ 4 |) | | | þ | |
| EU-N | variety |) . · · · . | | | | | | |
| 2011 | <i>a</i> . | | | | | | | |
| 11-2082 | lettuce | 200 SL | Or ^v | √ 0.12 5 √ | 0.0208 | 48 | 3 | |
| (11-2082-03) | | | F O | | | | | |
| France | Quenty 0 | | | ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ | | Į Ģ | | |
| | l Fexuille de | | a.Y | ~ ° ~ | | 7 | | |
| × | chene (oak Waf | | | | | 1 | | |
| EU-N | (oak & af | V 01 | L V | | | | | |
| 2011 | (oak Ceaf lettuce) | | | . W. | an a | | | |
| 11-2082 | Metruce e | 200 SL | | \$\tag{0.125} | 0.0167- 0.0167 | 48 | 3 | |
| (11-2082-04) | , , | | 14 | | ≪ 0.0167 | | | |
| 2011 11-2082 (11-2082-04) Belgium | Funnas, C | 200 SL | | \$\text{0.126}\$\tag | | | | |
| | leafy varicay | 1 2 2 | | | | | | |
| | curly ~ | TO, and the | | | | | | |
| EU-N | r . 5 ' | | | J" "O" | | | | |
| 2011 | odrly | CH Codes (M | Y &, | | | | | |
| FI = formulation | growth stark(RI | CIÎ IN | × 0 | 10 | • | • | | - |



Table 6.3.1.1-3b: Results of residue trials conducted in/on lettuce after spraying with BYI 02960 SL 200 in the field (northern EU residue region)

| Study No. | | | R | esidues (mg/kg) ext | oressed as BYI 0290 | 50 & & |
|--------------|---------------------------------------|--|---|---|----------------------------|---|
| (Trial No.) | D | DALT | | (g , g) l | BYI 02960- | |
| Country | Portion | DALT | DVI 02070 | difluoroacetic | diflu o ro- | total residue of |
| | analyzed | (days) | BYI 02960 | acid | ethylagnino- | BYA 02960 cal |
| GLP | | | | | furanone | |
| 10-2223 | head | 0* | 0.20 | < 0.02 | √ 30.01 °. | O 0523 V |
| (10-2223-01) | | 0 | 1.9 | 20 ,02 | <0.01 | 2 .0 |
| Netherlands | | 1 3 | 1.8 | 0.02 0.02 | ②* <0.01 ② ② <0.01 ② | |
| | | 5 | 0.58 0.34 | <0.02 | <0.01 | |
| GLP: yes | | 7 | 0.22 | ≤ <0.02 × | 。<0.0∤ [©] | ©.25 © |
| 10-2223 | head | 0* | 0.08 | <0.02 | © <0.91 O | الله 0.11 الله الله الله الله الله الله الله ال |
| (10-2223-02) | | 0 | 1.7 | °<0.020° | 9 .01 | 1.75° |
| Belgium | | 1 3 | 0.43 & 0.37© | | \$0.01 \$0.01 | * 0.46 40.40 |
| CLD | | 5 | 0.37 | 60.02 D | <0.01 | ~ 0.37.√° |
| GLP: yes | | 7 | | ×0.02 | 4 < 6 01 | 0.24 |
| 10-2223 | head | 0* | © 0.13 | _@ ⁷ <0.6Q | 2 0.01 € | ♦ 9 1 6 |
| (10-2223-03) | | 0 | Q 1.5 V | $\mathcal{L} = \mathcal{L} \mathcal{L} \mathcal{L}$ | | ¥ ¥.5 |
| France | | 1 3 | | ♥ | 20.001 20.001 20.001 | |
| CI D | | 3 5 | © 0.08 © 0.52 | 0.02 | ©0.01 © | 0.71 |
| GLP: yes | | 7 @ | | \$ 9@3 Q* | 0.01 × | 0.50 |
| 10-2223 | head | 0/* | (0.57 s. | <0.02 | Q <0.01 | 0.40 |
| (10-2223-04) | | 0 | | "Ø<0.02 ° ≈ | \$0.01 © | 1.8 |
| Germany | | 3 4 | 0 1.1 1.0 0.8 0.8 | <0.02\ <0.02\ <0.02\ | 0.01 | 1.1 1.0 |
| CI Di vias | < | 5 | 0.8P 0 | \$0.02 \$0.02 \$50.02 | « <0.0° | 0.90 |
| GLP: yes | | P | \$ 6 66 \$ | ₹ 0.02 | ⊘ < €√ 01 | 0.69 |
| 10-2223 | head | & 0* ∞ | 0.80 | (A) <0.9 (A) | @0.01 | 0.83 |
| (10-2223-05) | \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | | 4.1 | ~ <00002 @" | 0.02 | 4.1 |
| Germany | | <u>1</u> | | \$\begin{align*} \begin{align*} \begi | 0.01 0.01 | 1.1 0.87 |
| CID & | | \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | 0,83 × | \$\int_{<0.02}\int_{\infty} \times \tag{\chi} | 0.01 | 0.86 |
| GLP: yes | 8 | √ 7 % | 0.65 | <0.002 | < 0.01 | 0.68 |
| 11-2082 | head | . 00 | 0,19 | ♥ * Ø.02 0 | < 0.01 | 0.22 |
| (11-2082-01) | | | | 0.020 | < 0.01 | 2.7 |
| Germany | head | ***3 4 * 7 0 | × × 1.5 | 0.023 | 0.017 <0.01 | 1.6 0.56 |
| CI D | Q Á | 10 | 0.3 | ©.020 | < 0.01 | 0.36 |
| GLP: yes | | 14 | 0973 | 0.024 | < 0.01 | 0.11 |
| 11-2082 | head | °0* √ | 90.11 Q | <0.02 | < 0.01 | 0.14 |
| (11-2082-02) | Pro- | 0 | 2.6 | ∠ <0.02 | < 0.01 | 2.6 |
| Germany | | 3.0 | $\begin{bmatrix} & & & & & & & & & & & & & & & & & & &$ | <0.02 0.022 | <0.01 <0.01 | 0.14 0.065 |
| CL DA | 4. G | and a | © \$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | 0.022 | <0.01 | 0.063 |
| GLP. yes | | \$14 £ | 90.01 | 0.027 | < 0.01 | 0.047 |

DALT = days after list treatment * prior to last treatment Continued on next page...



Table 6.3.1.1-3b (cont'd): Results of residue trials conducted in/on lettuce after spraying with BYI 02960 SL 200 in the field (northern EU residue region)

| Study No. | | | Residues (mg/kg) expressed as BYI 02960 | | | | | | | |
|--------------------------------|------------------|-------------|---|------------------------|--|-------------------------------|--|--|--|--|
| (Trial No.) Country GLP: | Portion analyzed | DALT (days) | BYI 02960 | difluoroacetic acid | BYI 02960- difluoro- ethylanino- furanone | total residue of BVL02960 cal | | | | |
| 11-2082 | head | -10 | 5.6 | < 0.02 | 0.011 | | | | | |
| | licau | -10 | 2.0 | <0.02 ₹0. 02 | 0.015 | | | | | |
| (11-2082-04) | | | | | | 2.0 0.67 | | | | |
| Belgium | | -5 | 0.63 | ₹ 0.028 | | 0.670 | | | | |
| | | -2 | 0.35 | 0.030 | 10.01 | | | | | |
| GLP: yes | | 0* | 0.25 | 0.026 | <0.01 | Q | | | | |
| GLI. yes | | 0 | 2.8 | M - | . · <0.01 | " Q.8 "©" | | | | |
| | | 3 | 0.43 | y 0.028 y | <0.00 | 0.47 | | | | |
| | | 7 | 0.22 | 0.030 | | 0.47 3 0.26 | | | | |
| | | 10 | | ⊘° 0.02% × | √ √ 0.01 ° 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 0415 | | | | |
| | | 14 | 0.058 | 0.026 0 04025 0 | 0.01 | 0.093 | | | | |

| | | 14 | 0.0580 | | () 0 : 0 :2: | <u> </u> | OP. | A | 0.093 | |
|-------------------------------------|---|--------------|--------------------------------|----------------|----------------------------|------------------------|----------|---------------------|---------|----------|
| DALT = days a * prior to last to | DALT = days after last treatment * prior to last treatment Table 6.3.1.1-4: Recovery data for PYI 02960 in lettuce Study No. Trial No. Crop Portion analysed metabolite Min Max Mean RSD Year Table 6.3.1.1-4: Recovery data for PYI 02960 in lettuce Individual Portion A Min Max Mean RSD | | | | | | | | | |
| | | | | * | | | | | 0~ | |
| Table 6.3.1.1 | -4: Reco | very data fo | or S YI 02960 in | lettu | ıçe | | | | | |
| Study No. | | 0 | | 2 | Fortifi | | Reco | <u>~</u> &ry (%) | | |
| Trial No. | | Portion | a.s.F.S | A. | cation | |) |) í | | |
| GLP | Crop | anadysed | a.s. | n | level | Individual | Min | Max | Mean | RSD |
| Year | | | | | | | | Max | Mican | KSD |
| 11-2082 | lettuce | head | B*1 02960 | | 0.01 | © 6;11 5 | 106 | 111 | 109 | |
| 11-2082-01 | | 4 | | | €0.10 © | ©6;11 104:105 | 104 | 105 | 105 | |
| to | Ö | | | 1 | 2.0 | 1190 | 119 | 119 | 119 | |
| 11-2082-04 | | | Ö KÖ | | 809 | | 114 | 114 | 114 | |
| | | | | 6 | werall | | 104 | 119 | 110 | 5.4 |
| 2011 | | | difluoroacetic acid | 2 | 0.02 | 89 709 O | 89 | 109 | 99 | |
| | % | | acid | O | | | | | | |
| | 29 | | ~ ~ ~ ~ ~ ~ | _/ Ž | | 98;106 | 98 | 106 | 102 | |
| | | | | 1 | 4.0 | 102 | 102 | 102 | 102 | |
| | | | | • | 16 | 102 | 102 | 102 | 102 | |
| | Q O | | | 6 | erall | | 89 | 109 | 101 | 6.9 |
| A | | | BYI 02960- Q difluoroethyl- | 2 🔏 | 0.01 | 114;123 | 114 | 123 | 119 | |
| | 04 | | aminofuraçãone | | | | | | | |
| J. | | | | $\frac{1}{2}$ | 0.10 | 108;109 | 108 | 109 | 109 | |
| . * | | l o l | | 1 | 2.0 | 107 | 107 | 107 | 107 | |
| | L | | | 1 | 8.0 | 116 | 116 | 116 | 116 | |
| <u></u> | | | | 6 | overall | | 107 | 123 | 113 | 5.4 |
| | | | ¥ ~~ | L | 5,01411 | | 107 | 123 | 113 | J. 1 |
| , Š | | | | | | | | <i>a</i> | . 1 | |
| | | | | | | | | Conti | nued on | next pag |
| |) " <i>W</i> " | | | | | | | | | |
| | | | | | | | | | | |
| | | | | | | | | | | |



Table 6.3.1.1-4 (cont'd): Recovery data for BYI 02960 in lettuce

| Study No. Trial No. | | | _ | | Fortifi- | | Recov | very (%) | | Z, |
|------------------------|----------|------------------|-------------------------------------|--|-----------------|--|-----------------|---|-----------------------------|---------------|
| GLP | Crop | Portion analysed | a.s./ metabolite | n | cation level | Individual | Min | Max | Mean | RSD |
| Year | | | | | (mg/kg) | recoveries | A S | \ \times \ \ \times \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | | |
| 10-2223 | lettuce, | head | BYI 02960 | 15 | 0.01 | 79;87;102; | 79 | . Pi7 . | ©104 « | 3 10.7 |
| 10-2223-01 | head | | | | | 106; 107;10 2 10; | Č | | | <i></i> |
| to 10-2223-05 | | | | | L, v | 116;9 2,9 7;107; 108:0,14;116; | | | | |
| GLP: yes | | | | 4 | | 11Q, 0 | | Ç | | |
| 2010 | | | 4 | \$ | 0.10 | 88;90;9 0 ,92;93 | \$88 √C | 93© 1196 | \$\times_{\text{3}}\text{5} | 2.2 |
| | | | % | $\begin{bmatrix} 2 \\ 2 \end{bmatrix}$ | 0.50 | 103;106 | 100 | 1496 √. 94 ≟ | ×↓05 | |
| | | | A | 24 D | 1.00 5.64 | 9204 | 90 | 98 | 93 | |
| | | | | 7 26 | verall (| | 795 | 117 | 200 | 10.5 |
| | | | difluoroacette | 12 | 0.02 | 90,93;94;95;97 | 8 6 | \$116 | O 98 | 10.2 |
| | | | acie C | | | 86;89:97;95 © | | | | |
| | | _@ | | 3 4 | 0.05 | 90;94,98 | 90 | § 98 | 94 | 4.3 |
| | | Z ^G | | 2 ¹⁰ | 0.20 | 92,94 | . |)້ 94 | 93 | |
| | | | | 3 | 0 0.50 | 93;101;90;91; 92 | 900 | 101 | 93 | 4.7 |
| | | | | 2 | 1,00 | 90:92 | \$ | 92 | 91 | |
| | . A | | | 40° | | l⊗n∩⋅20 <i>∞</i> ″ √. | [*] 89 | 90 | 90 | |
| | | | DIN 020 (A | 26, \$ | overall | 07/2007 | 86 | 116 | 95 | 7.9 |
| | | | BYI 02960-y diffuoroethyl- | 15 | 0.01 | 8793;95;100; 200;104;105; | 83 | 107 | 94 | 8.4 |
| Ö | | | aminofuranone | ? | | D107;83(83;86; 88:90.92:96 | | | | |
| | ſ | | | 5 🖓 | 0.16 | 85,98;97;97;99 | 85 | 99 | 95 | 6.1 |
| \ | × | | | 3 | ©0.50 | 9 7;109 | 97 | 109 | 103 | |
| | | a g | | 2 | | 86;101 | 86 | 101 | 94 | |
| | | | | Q^{2} | 5.00 | 97;96 | 96 83 | 97 109 | 97 95 | 7.7 |
| 4 | Q C | | | ¥6 | overali | | 83 | 109 | 95 | 7.7 |
| | , | | | ~ X | <i>0</i> | | | | | |
| 4 n | , Ş | y A | | \Q'' | | | | | | |
| A S | , | | y | , ř | | | | | | |
| | | | | | | | | | | |
| | | | BYI 02960 diditionogramino furamone | | | | | | | |
| | | | z Y | | | | | | | |
| | | \$ | | | | | | | | |
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Southern Europe

| Report: | KIIA 6.3.1.1/03, ; 2 | 2012 | |
|----------------------------|--|--------------------------|-------------------|
| Title: | Determination of the residues of BYI 02960 in/on BYI 02960 SL 200 in the field in France (South), S - Amendment no. 0001 to report no. 10-2213 | lettuce, head after spra | ny application of |
| Report No. & Document No.: | 10-2213, dated February 27, 2012 M-425913-02-1 | | |
| | | A.) | W/ h h / A(V |

| Report: | KIIA 6.3.1.1/04, 2012 🛴 | , O | |
|----------------------------|---|-----|---|
| Title: | Determination of the residues of BY 02960 BYI 02960 SL 200 in the field in Spain, Italy | | |
| Report No. & Document No.: | 11-2071, dated February 23, 2012 M-425784-02-1 | | Ş |

| Guidelines (applies to both studies): | Directive 21/414/FEV, residues in or, on treated products, food and feed |
|---------------------------------------|--|
| GLP (applies to both studies): | y (certified lab watory) Deviations: none |

L Materials and Methods

Nine field residue trials were conducted in southern Europe, as follows:

In 2010, 5 trials (France, Italy [2], and Spain [2]) were conducted to support the use of BYI 02960 SL 200 in lettuce (& Lordon & Lordon

Four further trials were carried out in 2017, in France Spain. Portugal, and Italy, to complete the data package (2012, FIIA 65.1.1/64). All lettuce varieties used were leafy (open-head) varieties, in order to comply with the upcoming revision of the EU guidance for this crop. The basic application parameters were as in 2010 (interval in one trial 9 day), water rates ranged from 500-800 L/ha. Again, all treatments were made at the scheduled rates.

Samples of lettuce heads were taken immediately prior and subsequent to the final application, and at several intervals thereafter (up to 7 or 14 days after treatment in 2010 and 2011 trials, respectively). The envisaged PHI was 3 days.

The samples were analyzed for the parent compound and its metabolites DFA and DFEAF using methods 01304 (2010 trials, for method details, cf. KIIA 4.3/03) or 01212 (2011 trials; cf. KIIA 4.3/03). The respective LOQs for the 3 analytes were 0.01, 0.02, and 0.01 mg/kg (all in parent equivalents).



II. Findings

During the conduct of the complete set of lettuce studies in 2010-2011, concurrent recoveries of BYI 02960 and its metabolites DFA and DFEAF were obtained from samples of lettuce heads. This sample material is representative of all sample materials collected in these trials

The recovery samples for parent and DFEAF were spiked at levels of 0.01 mg/kg and 0.10 mg/kg well as 0.50, 1.0, and 5.0 mg/kg (expressed in BYI 02960 equivalents). Mean recovered were all within acceptable ranges (91-104%, RSDs of the larger validations set [n > 2] 2.2-10.7%, 12-2-1

Fortification levels for DFA were or 0.02 mg/kg, 0,005 mg/kg, and 0.50 mg/kg, 05 well as 0.20, 1.0, and 5.0 mg/kg (expressed in BYI 02960 equivalents). Mean recoveries were all within acceptable ranges (90-98%, RSDs of the larger validations sets [n > 2] \$\displant 3-10.2%, n=\displant 12).

Details of recovery data are shown in table 6.3 1.7-6. All trial data are summarised below in table 6.3.1.1-5a & b and in greater detail in the Tier Y summary forms. (Residues of parent By 1 02960 as well as its metabolites DFA and DFFAF are expressed in BYI 02960 equivalents. From these individual values, the "total residue of BYI 02960" was calculated as one sum of these three analytes, expressed in parent equivalents

Relevant residues of BYI @2960 were determined in lettuce head samples taken 10 days subsequent to the first application (immediately prior to the and treatment) as well as at various intervals after the final application. Analyses showed that total residue levels declined with time

"Agricultural" use

Lettuce heads vere taken 9-10 days after the first freatment (before the final treatment) in order to represent a papplication use with a 10-day PHL as is privileged for general agricultural use in southern European fields. Total residue levels ranged from 0.07-0.83 mg/kg (n=9, median: 0.32 mg/kg).

"Home & garden use &

"Home & garden use of the land that treatment, residue levels in lettuce heads were between 1.9 and 7.4 mg/kg (median 2.9 mg/kg). By day 3 — the PHI for home & garden use — the ...=950 ...al sampling eve levels had declined to 039-3.2 mg/kg (n=9) with a median value of 1.2 mg/kg. Residues continued to decrease until day 4, the final sampling event, when levels ranged from 0.094-0.30 mg/kg (n=4,



III. Conclusions (lettuce, southern Europe)

In order to support the use in the EU of BYI 02960 in lettuce, 9 valid trials were conducted in southern Europe in the years 2010-2011. BYI 02960 was applied twice as an SL 200 formulation at an active substance rate of 125 g/ha per treatment. The application intervals were 9-11 days. All applications were at the required rates, and all trials were conducted according to GLP.

The envisaged "agricultural use" nominally calls for 1 spray at 125 g/ha and a PHI of 10 days. To evaluate this use, samples were taken just prior to the 2nd application of e. 10 days after the first treatment. For the "home & garden use", samples were taken immediately after the 2nd application and at several intervals thereafter, including the envisaged PHI of 3 days.

Samples were analyzed for the relevant residues of By 102960, comprising the parent compound and its metabolites DFA and DFEAF. The residues of all three analytes were summed to well a calculated "total residue of BYI 02960". The results of the trials presented above demonstrate that:

- total residues of BYI 02960 dissipated rapidly in lettuce heads, from levels of 1.9 4 mg/kg on day 0 after the final treatment to 0.39 3.2 mg/kg on day 3 (PHI for the "home & garden" use). The respective median values were 2.9 and 1.2 mg/kg.
- ten days after a single application of BY102960 SL 200 representing the envisaged "agricultural" use total residue levels ranged from 0.0250.83 mg/kg, with a median value of 0.32 mg/kg.



Table 6.3.1.1-5a: Application scenario in residue trials conducted in/on lettuce after spraying with BYI 02960 SL 200 in the field (southern EU residue region)

| Study No. | | | | Application | | | | |
|--|---------------------------|--|---------------|-------------------------|--|----------|--|----------|
| (Trial No.) | | | | | | | | F. |
| Country | Crop | FL | N .T | . / | | GS & | © PHI | |
| Location | Variety | FL | No. | kg/ha (a.s.) | kg/h | GS 4 | (days) | |
| Region | | | | ` ′ | (a.s.) | | PHIO | Ò |
| Year | | | , | ⊳ _A | \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | | | 9 |
| 10-2213 | lettuce | 200 SL | 2 | 0.125 | © 0.0250 | Č48 Q | | |
| (10-2213-01) | Madita Head | | 4 | ٥ | | | S (| ,0" |
| France | Wiadita Ticad | | | Õ. | | | lo , é | * |
| | | | 00° y | ~ | | | W W | |
| | | la la | ~ . | | | | 45 | |
| EU-S | | | , Ø | | | | .4 | |
| 2010 | | .1 | | | 0 | | \$\ \L_{\circ}\\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ | |
| 10-2213 | lettuce | 200.SL | | 0.125 0.125 0.425 | 0.0208 | 49 🕸 | | |
| (10-2213-02) | Dauair | | "@" | | | 49 47 | | |
| Spain | Transdara | \$ \(\sqrt{\sq}}\ext{\sqrt{\sq}}\exitt{\sqrt{\sq}}\exitt{\sqrt{\sq}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}} | | | | | | |
| | Trocadero | ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ | *** | | | | Ψ | |
| EU-S | ~ | | | | | | | |
| 2010 | lottu 🔊 | | | L 2 | | 46 | | |
| 10-2213 | Tettuce (| 200 SL | L 2 | 0.AQ25 % | 0.0208 | 46 | 3 | |
| (10-2213-03) | Ballerina O' | | | | | | | |
| Italy | huttarhad | | ~ O | 6 4. | | * | | |
| | butterhead | | | | | | | |
| EU-S | | | | .W | | | | |
| 2010 | butterhead | | | | | | | |
| EU-S 2010 10-2213 (10-2213-04) Spain | lettuce Murai Lotho | 200 SI | | 0.123 | | 49 | 4 | |
| (10-2213-04) | Murai Lotto | | | | | | | |
| Spain | Rosso, | A 0 | | | | | | |
| | Goose Leaf | | | | | | | |
| EU-S 2010 10-2213 | variety | | Y 4. | | | | | |
| 2010 | | | | | | | | |
| 10-2213 | variety Jottuce Bergamo | %200 S I | <u></u> 2 | 0.125 | 0.0179 | 49 | 3 | |
| (10-2213-05) | | | | ř | | | | |
| Spain Q | Betgamo " Blond low, | | | | | | | |
| | Doose Joaf | | . 4 | | | | | |
| EU-S | variety | | | | | | | |
| 2010 | | | y " | | | | | |
| 11-2071 | lettuce D | 200 SP | 2 | 0.125 | 0.0250 | 49 | 3 | |
| (11-2071-01) | 1 | | | | | | | |
| Spain Spain | Livisma RZ loose leaf | | | | | | | |
| ELL C | Priety | ₽ | | | | | | |
| EU-S | | | | | | | | |
| FL = formulation | | GS = 200 | th stage (DD | L CH-code) at las | t traatmant | <u> </u> | <u> </u> | J |
| | | GS = growt | ııı stage (BB | Cn-code) at las | a deadhent | | | |
| EUS = southern Europe | ~ | | | | ~ | | | |



Table 6.3.1.1-5a (cont'd): Application scenario in residue trials conducted in/on **lettuce** after spraying with BYI 02960 SL 200 in field (southern EU residue region)

| Study No. | | | | Application | | | |
|---|------------------|----------------------------------|--|------------------------|-----------------|--|---------------|
| (Trial No.) | | | | Аррисацоп | Í | | |
| | | | | | | | |
| Country | Crop | FL | N.T | . /1 | | GS & | Ø PHI |
| Location | Variety | rL | No. | kg/ha (a.s.) | kg/ht (a.s.) | GS & | PHI (days) |
| Region Year | | | | , , | | | |
| | 1.44 | 200 GI | | > <u></u> | Ø. 0.1.70 | W. | × 209 |
| | lettuce | 200 SL | 2 | 0.125 | © 0.0179 | 046 | 3 0 |
| (11-2071-02) | T 11 D | | 2 | ٥ | ₹ . | | S o |
| | Lollo Rosso, | | 4®" | 5 | |) ~~ | 30 |
| | loose leaf | | | , ~ | | A | |
| | variety | | Q | | | | |
| 2010 | | Q. | · & ° | \$ \times \tag{7} | | <u> </u> | 30 |
| | lettuce | 200 SIO* | _ D * | ×0.125 | 20 0156 | 48 | 3 |
| (11-2071-03) | | | | 0.125 | © 0156 & | 48 6 4 4 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 | 3 |
| France | Pitice, | | | | | | |
| | loose leaf | | | | | | |
| | variety | | | | | | |
| | e (| D* | ~ \$ 1 | | | | |
| EU-S | | "O" | ` | | | [,5] . V | |
| 2010 | ~ | | | | | Ü . *Y | |
| 11-2071 | lettuc s | ×200 SI | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ | 0 125 | . 0.01560 | | 3 |
| (11-2071-04) | | /200 31 | 1 2 | r y 0.1 <i>49</i> ν ∘. | 0.0130 | () | |
| Portugal | Campira. | | | , A ~ | | Ò | |
| 1 Ortugai | loose leaf | | | | | Ų. | |
| | variety | | _@" | Õ . | . " | ľ | |
| | | | | Y O'Y | | | |
| | , Ş | | S | <i>@</i> , |) ~ | | |
| EU-S | | | ,^Q~ | | W | | |
| 2010 | \ <u>`</u> \'\\ | | | S' Ç | | | |
| L = formulation | |) [™] GSÆ g rowt | h stage (BB | CH-code) at las | t treatment | | |
| EU-S = southern Europe | | 4 ~ | ~ J | 0 4/ | / | | |
| | | | v uOr | | | | |
| | | | | 4 2 | | | |
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| | J Q ^v | | · () | % | | | |
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| | | | | | | | |
| EU-S 2010 II-2071 (11-2071-04) Portugal EU-S 2010 L = formulation U-S = southern Europe EU-S 2010 | S S | | | | | | |



Table 6.3.1.1-5b: Results of residue trials conducted in/on **lettuce** after spraying with BYI 02960 SL 200 in the field *(southern EU residue region)*

| Study No. | | | R | esidues (mg/kg) exp | pressed as BYI 0290 | 60 |
|---|----------|--|--|--|---|---|
| (Trial No.) | Portion | DALT | | | BYI 02960- | |
| Country | analyzed | (days) | BYI 02960 | difluoroacetic | difluoro- | total residue of |
| GLP | | | | acid | ethylamino- furanone | BY1,02960 cal |
| 10-2213 | head | 0* | 0.04 | < 0.02 | 0.01 | 8 8 7 9 |
| (10-2213-01) | nead | 0 | 2.6 | <0.02 ≋ 0.02 | <0.01 | × × × 6 × 1 |
| France | | 1 | 0.57 | 0.02 | ් <0.01 | 0.600 |
| | | 3 | 0.40 | ♥ 0.02 | Q <0.01 | 0.49 |
| GLP: yes | | 5 7 | 0.29 0.15 | 0.02 | <0.01 <0.01 | ©.19 © |
| 10-2213 | head | 0* | 0.80 | 0.02 | 0.69 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | © 0.830° |
| (10-2213-02) | | 0 | 3.8 3.5 & | | 9.02 | 3.80 |
| Spain | | 3 | 3.3 × 2.7 © | | 0.02 | 3.3 - \$2.7 |
| CI D. was | | 4 | 2,3 | © 0.03 © | 0.02 | \$\frac{1}{2.4} \$\frac{1}{2}\$ \$\frac{1}{2}\$ |
| GLP: yes | | 7 | 4 3 × | ~ 0.03 ° | <u> 4</u> 01 | 1.4 |
| 10-2213 | head | 0* | Ø0.05,≈y | , oʻ 0.43 joʻ | ¥0.01 \$ | \$\tag{9}{6.5} |
| (10-2213-03) | | 0 1 | | 0704 | | ₹ ¥.7 & 2.2 |
| Italy | | 3 | | 0.04 | \(\sigma_0\) \(\sigma_0\) \(\sigma_0\) \(\sigma_0\) | 0.53 |
| CI Di viag | | 5 | © 0.10 ©0.21 © | 0.65 | \$0.01 D | ≫ 0.27 |
| GLP: yes | | 7_@ | 0.09 | \$ 0.65 \$ 2005 | 0.00 | 0.15 |
| 10-2213 | head | 7 | l. ″0~\$\$* a | 0.03 | <0.01 | 0.41 |
| (10-2213-04) | | $\hat{\wp}_1^0$ | | "O" 0.03 · 🔬 | 7 20:02 © | 3.7 |
| Spain | | | 3.0 | 0.04 | 0.02 | 3.1 2.2 |
| CLD | W | 5 | 2.1 | 0.05 | 0.00 | 2.1 |
| GLP: yes | - F | 70 | | ≈ 0.05 [©] | © 1 002 | 1.3 |
| 10-2213 | head | √° 0* % | 0.04 | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ | €0.01 | 0.07 |
| (10-2213-05) | | | 2.9 | \$\text{\infty} \square\$\text{\infty} \text{\infty} | <0.01 | 2.9 |
| Spain | | 1 | | <0.02 \$* 0.02 \$* | 0.01 0.02 | 2.0 1.2 |
| | | \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | 0.21 | <0.02 | <0.01 | 0.24 |
| GLP: yes | 2 | U 7 % | 0.170 | 0002 | < 0.01 | 0.20 |
| 11-2071 | head | | 0.43 | 0.046° | 0.021 | 0.49 |
| (11-2071-01) | | | | 0.062 | 0.031 | 2.7 |
| Spain | | * 7 Q | 1.5 1.77 | 0.077 | 0.046 0.034 | 1.6 0.90 |
| CI D | | 10 | 0.57 | \$ \$\text{\$0.11} | 0.024 | 0.71 |
| GLP: yes | | 14 | √ 0.033 √ | 0.15 | < 0.01 | 0.19 |
| 11-2071 | head | °0* √ | Y 20.55 Q | 0.051 | 0.011 | 0.61 |
| (11-2071-02) | | | 7.3 | 0.039 0.083/0.032** | 0.023 | 7.4 |
| Italy 👸 | ~~~ | 3.0 | 3.10 | 0.083/0.032 | 0.045 0.025 | 3.2/0.052** 1.5 |
| CI N | | A . | © \$\text{\$\tilde{\text{9.24}}\$} | 0.13 | < 0.01 | 0.37 |
| GLP: yes | | Ž14 Ž | 90.17° | 0.12 | < 0.01 | 0.30 |
| 11-2071 | læad | -9% | 5,2 | < 0.02 | 0.015 | 5.4 |
| (11-2071-03) | ∜ | | ************************************** | < 0.02 | 0.024 | 3.5 |
| France | | \$¥4 0 1 ≤ | Ø.69 ©0.39 | <0.02 <0.02 | 0.014 <0.01 | 0.72 0.42 |
| CID O | 8 | 0* | 0.29 | <0.02 | <0.01 | 0.42 |
| GLP: yes | D A | | 3.5 | 0.020 | 0.022 | 3.6 0.78 |
| | | ~ <u>%</u> | 0.72 | 0.035 | 0.020 | 0.78 |
| | 10 | \$ 7 10 | 0.25 0.20 | 0.032 0.047 | 0.011 0.012 | 0.29 0.26 |
| GLP-yes 11-2071 (11-2071-03) France GLP: yes | | 14 | 0.20 | 0.047 | <0.012 | 0.26 |
| L Cĩ | | - 1 | 0.071 | 0.010 | .0.01 | 0.15 |

DALT = days after last treatment

^{*} prior to last treatment

^{**}residues in control

Table 6.3.1.1-5b (cont'd): Results of residue trials conducted in/on **lettuce** after spraying with BYI 02960 SL 200 in the field (southern EU residue region)

| Study No. | | | R | esidues (mg/kg) ex | oressed as BYI 029 | total residue of |
|----------------------|----------------|---------------------------------------|-----------|--|---|--|
| (Trial No.) | Portion | DALT | | | BYI 02960- | |
| Country | analyzed | (days) | BYI 02960 | difluoroacetic | difluoro- | total residue of |
| GLP | unuiyzeu | (unjs) | D1102700 | acid | ethylamino- | BYL 02960 cal |
| DVI 02060 SI | 200 | | | difluoroacetic acid 0.02 0.022 0.031 0.027 0.029 0.034 0.034 0.034 0.038 0.038 | <u>furanone</u> | 0.04 1.8 0.9 0.15 0.15 |
| 11-2071 | head | 10 | <0.01 | <i>₽</i> 0.02 | 0.01 | 0.04 1.8 0.9 0.15 0.30 0.11 |
| (11-2071-04) | nead | -8 | 1.8 | ©.022 | 0.021 | 1.8 |
| Portugal | | -5 | 0.92 | 0.031 | 0.015 | 0.97 |
| | | -2 0* | 0.27 | 0.027 | <0.01 <0.01 | |
| GLP: yes | | 0 | 1.9 | 0.026 | <0.00 | 1.9 |
| | | 3 | 0.35 | 0.030 | \$0.01 0.01 | 1.9 0.39 0.20 |
| | | 10 | 0.067 | 0.034 | 0.01 ~~<0.01 | 40.11 |
| | | 14 | 0.046 | ©.038 | <0.01 | 6.094C |
| DALT = days aft | er last treatm | nent | | | 4,0,4, | |
| * prior to last trea | atment | | | | | |
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| | | 0 | | | | |
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| S. | | | | 0.029 0.026 0.034 0.034 0.034 0.038 0.038 0.038 0.038 0.038 0.038 0.038 | | |
| | | | | | | |
| | | | | 0.022 0.031 0.027 0.029 0.026 0.034 0.034 0.038 0.038 0.038 | | |
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Table 6.3.1.1-6: Recovery data for BYI 02960 in **lettuce**

| Study No. | | | | | Fortifi- | I | Recove | ry (%) | @ n° | <u> </u> |
|------------------------|------------------|---------------|--|-------------|---|--|--------------------------|-------------------------|-----------------|----------|
| Trial No. | Crop | Portion | a.s./ | n | cation | | İ | I . | ı 🖏 🔏 | S) |
| GLP | or or | analysed | metabolite | | level | Individual | Min | Max | Mean | ₹RSD |
| Year | | | | | (mg/kg) | recoveries 🍣 | | _W | | |
| 10-2213 | Lettuce, head | head | BYI 02960 | 15 | 0.01 | 79;87;102;106; 107;109;110;116; | 79 | 117 | , 4 0 04 | 10.7 |
| 10-2213-01 to | | | | | Ĉ | 92;97;107;1 0 8; 114;116;117 | % & 11 | | | , |
| 10-2213-05 GLP: yes | | | | 5 | Ø ₹ 0 | 88;90;96,92;93 | 88 | 920 | J 91 | Z-2 |
| 2010 | | | | 2 | \$0.50 1.0 | 103;196 9294 ° 4 | \$103 92 _% | ₩ 94 © | 5°105∉` Q© | , |
| | | | 4 | | 5.0 | 90;98, O | 20 | 982 | 29 4 | |
| | | | & | 26 | òyverall ∜ | | 9 79 | 11√7 | ₹100 | 10.5 |
| | | | difluoroacetic acid | 125 ** | 0.02 | 90093;948 <i>9</i> ,97; | * 86 L ** | 116 🐴 | 98° | 10.2 |
| | | | | 3 | 0.05 | 90;99;98 | § 90 | 98 É | 94 | 4.3 |
| | | | | 25 Z | 0.20 | 92,94 | 92 | 94 _© 1,64 | 93 93 | 4.7 |
| | | <i>@.</i> | | 2 & | 0.30 1.0 | 93;10,\$90;91; 62 90; 92 | ن ∂ 90 د | 92 | 93 91 | 4.7 |
| | | Ş | | 2 | 1.0 0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 5.0 | 98,89 | 890 | 90 | 90 | |
| | | | DVI OSCO | 2 6 | overall | | \$ 6 | 116 | 95 | 7.9 |
| | A O | | BYI 02960- Sidiflooroeth Da missofuranone | 15 (| 0.01 | 87; 93; 95; 200; 190; 104; 105; 207; 83, 83; 86; 88; 90; 92; 96 | » 83 | 107 | 94 | 8.4 |
| | | | | 5 🌋 | 0.10 | 85: 8; 97: 4; 99 | 85 | 99 | 95 | 6.1 |
| | | | | 2 | 0.50 | 97, 109 ¹ | 97 | 109 | 103 | |
| Q |)) | | | §2 2 | 5 0 W | ₽86; LD¥ 97: -0 6 | 86 96 | 101 97 | 94 97 | |
| | ٥, | | | 26 | ovefall . | | 83 | 109 | 95 | 7.7 |
| 11-2071 | Lettuco | head | B YI 02 0 00 « | Ã | \bigcirc " | 88 | 88 | 88 | 88 | |
| 11-2071-01 | Ž. | | | 3 | 0.10 | 98;111;95 104 | 95 104 | 111 104 | 101 104 | 8.4 |
| to 11-2072-04 | | | | 3 5 5 | werall | 104 | 88 | 111 | 99 | 8.8 |
| GLP: yes 2011 | | | difluoroacetic acid | 1 4 | 0.02 | 87 | 87 | 87 | 87 | |
| , W | Š | | | 3 ″ | 0.20 | 113;95;95 | 95 | 113 | 101 | 10.3 |
| | | نَّ إِنَّ الْ | 7 2 5 | 4 | overall | 105 | 87 | 113 | 98 | 11.3 |
| L | | | BY 02960 diffuoroethyl- aminof@anone | 1 | 0.01 | 105 | 105 | 105 | 105 | |
| | | | | 3 | 0.10 | 98;105;99 | 98 | 105 | 101 | 3.8 |
| | | | | 4 | overall | | 98 | 105 | 102 | 3.7 |
| | | | | | | | | | | |

<u>Greenhouse</u>

| Report: | KIIA 6.3.1.1/05, 2012 | |
|----------------------------|--|--|
| Title: | Determination of the residues of BYI 02960 in/on lettuce after spraying of BYI 0296 SL 200 in the greenhouse in France (North), Germany, the Netherlands and Italy | |
| Report No. & Document No.: | 10-2212, dated February 22, 2012 M-425829-01-1 | |

| Report: | KIIA 6.3.1.1/06, 2012 | | V D | |
|----------------------------|--|--|---|-------------|
| Title: | Determination of the residues of BYI 0 BYI 02960 SL 200 in the greenhouse | 2960 in/on lettion In northern France | after spray application, Italy, Spain and | cation of C |
| Report No. & Document No.: | 11-2070, dated February 23, 2012 M-425786-01-1 | | | |

| Guidelines (applies to both studies): | Directive 91/4, 4/EEG residues in or on treated products, food and fixed |
|---------------------------------------|--|
| GLP (applies to both studies): | yes feertified aboxatory); Deviations: non O |

I. Materials and Method

Nine residue trials were conducted in European greenhouses, as follows:

In 2010, 5 trials (France, Germany [2], the Netherlands, and Italy) were conducted to support the use of BYI 02960 SL 200 in letture (2012, KriA 6.3/1.1/05). The letture varieties used were either closed-head (5 trials) or leady (2) varieties, as per the prevailing EU guidance at the time. Two applications were made at intervals of 10 days (11 in one trial) at a nominal rate of 0.625 L/ha, corresponding to 125. The BYI 02960 a.s. the water rate was 400-600 L/ha, reflecting local practice in the trial regions. All treatments were made at the scheduled rates.

Four further trials were carried out in 2011 in France, Spain, Germany, and Italy, to complete the data package (2012, KIIA 6.3) 1/06). In 3 of the 4 trials, the lettuce varieties used were leafy (open-head) varieties. The basic application parameters were as in 2010 (interval in one trial: 9 day); water rates ranged from 400 600 I. Laa. Again, all treatments were made at the scheduled rates.

Samples of lettuce heads were taken immediately prior and subsequent to the final application, and at several intervals the cafter tup to vor 14 days after treatment in 2010 and 2011 trials, respectively). The envisaged PHI was 3 days.

The samples were analyzed for the parent compound and its metabolites DFA and DFEAF using methods 00304 (2010 totals; the method details, cf. KIIA 4.3/03) or 01212 (2011 trials; cf. KIIA 4.3/05). The respective LOO for the 3 analytes were 0.01, 0.02, and 0.01 mg/kg (all in parent equivalents).



II. Findings

During the conduct of the complete set of lettuce studies in 2010-2011, concurrent recoveries of BYI 02960 and its metabolites DFA and DFEAF were obtained from samples of lettuce heads. This sample material is representative of all sample materials collected in these trials.

The recovery samples for parent and DFEAF were spiked at levels of 0.01 mg/kg, as well as 0.50, 1.0, and 5.0 mg/kg (expressed in BYI 02960 equivalents). Mean recoveries were all within acceptable ranges (91-104%, RSDs of the larger validations sets [n > 2] 2.2-10.7%, [n > 2] 2.15%

Fortification levels for DFA were or 0.02 mg/kg, 0.05 mg/kg, and 0.50 mg/kg, as well as 0.20, 1.0, and 5.0 mg/kg (expressed in BYI 02960 equivalents). Mean recoveries were all within acceptable ranges (90-98%, RSDs of the larger validations sets [n>2] 43-10.2%, n=2-12).

Details of recovery data are shown in table 6.3 1.1-8. All trial data are summarised below in table 6.3.1.1-7a &b and in greater detail in the Tier 1 summary forms. (Residues of parent By 102960 as well as its metabolites DFA and DFLAF are expressed in BYI 02960 equivalents. From these individual values, the "total residue of BYI 02960" was calculated as the sum of these three analytes, expressed in parent equivalents.

Relevant residues of BYI @2960 were determined in lettuce head samples taken 10 days subsequent to the first application (immediately prior to the 2nd treatment as well as at various intervals after the final application. Analyses showed that total residue levels declined with time.

On day 0, immediately following the final treatment, residue level in lettice heads were between 1.5 and 7.7 mg/kg/median 3.9 mg/kg). By day 3—the envisaged HII—the levels had declined to 0.80-6.0 mg/kg (n=9), with a median value of 2.2 mg/kg. Residues continued to decrease until day 14, the final sampling event, when levels ranged from 0.212.7 mg/kg (n=4, median 0.28 mg/kg).

III. Conclusions (lettuce greenhouse)

In order to support the use in the EU of EVI 02960 in Settuce, 9 valid trials were conducted in European greenhouses in the wars 2010-2017. BY 02960 was applied twice as an SL 200 formulation at an active substance ate of 25 g/kg per treatment. The application intervals were 9-11 days. All applications were at the required rates, and all trials were conducted according to GLP.

The greenhouse use calls for 2 sprays at 125 g/ha and a PHI of 3 days. To evaluate this use, samples were taken at several intervals after the final application, including the envisaged PHI of 3 days.

Samples were analyzed for the relevant residues of BYI 02960, comprising the parent compound and its metabolices DFA and DFEAF. The residues of all three analytes were summed to yield a calculated "total residue of BYI 02960". The results of the trials presented above demonstrate that:

based on a comparison of the residue values from field and greenhouse testing and using the same, use pattern, it is evident that the greenhouse use yielded somewhat higher total residues in fertuce than did the field uses. total residues of BYI 02960 dissipated rapidly in lettuce heads, from levels of 1.5-7.7 mg/kg on day 0 after the final treatment to 0.80-6.0 mg/kg on day 3 (envisaged PHI). The respective median



Table 6.3.1.1-7a: Application scenario in residue trials conducted in/on **lettuce** after spraying with BYI 02960 SL 200 in European greenhouses

| Study No. | | | | Application | <u> </u> | | | 1 8 |
|--|--|---------------------------------------|----------|--|--------------------|----------------------------|----------------|----------|
| (Trial No.) | | | | | 1 | | | Ş |
| Country | | | | | ^ | | | O' |
| Location | Crop | FL | No. | kg/ha | kg/h# | GS & | © PHI | |
| Location | Variety | 1.2 | 110. | (a.s.) | (2 S | | (days) | |
| Region | | | | (a.s.) | kg/h4\$* (a.s.) | | PHIO | Ĉ |
| Year | | | | | \$\tag{\psi} | °~/ | , Q' « | 1 |
| 10-2212 | lettuce | 200 SL | 2 🔊 | 0.125 | 0.0208 | | 7 3 0 1 | (|
| (10-2212-01) | Tettuce | 200 SL | 2 🦓 | 0.123 | 0.0208 | | | 4 |
| France | Kitonia, | | \$ | | | \$49 \$\infty\text{2}\$ | | |
| · | leafy variety | | <u> </u> | Ő. | | | D, C | ľ |
| EU-N | icary variety | | (A) | ~ . | | | | |
| | | | | ~ ~ | | | | |
| 2010 | 1 44 | 200 010 | | \$ 12.5d | 2000 | | | |
| 10-2212 | lettuce | 200 SIO* | «J | 0.125 | © 0208 © | 48 | 4 5 , 0 | |
| (10-2212-02) | A | A. | . O ~ (| V Q . | | 0′ 🦼 | | |
| Germany | Antoni, | %" ^ | | 0.125 0.125 0.125 | 00208 0 00313 | 48 | | |
| | leafy variety | | "@" | | | | | |
| EU-N | | R 4,4 | | | | | | |
| | 4 | ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ | | Y ~ ~ | | | 1 | |
| 2010 | 1-44 | la ar b | 25 | <u> </u> | 09313 | | 3 | |
| 10-2212 | Torpedo, & | | | 0.125 | 0.0313 | 48 | 3 | |
| (10-2212-03) | T | | 10° | | B . | O | | |
| Germany | Torpedo, | | | , 4 . | Y " Q | Ĉ | | |
| | butterhead | | | | | Ű | | |
| ELLM | variety | | ~~~ | | 0 A208 | 7 | | |
| EU-N | | | | | | | | |
| 2010 | | | | |) | | | |
| 2010 10-2212 (10-2212-04) Netherlands | lettuce 5 Gardia, 9 butternead | 290 SL | | Ø.125 | 0.9208 | 45 | 3 | |
| (10-2212-04) | N . 4 (| | | Ĭ, Ž, | 49 | | | |
| Netherlands | Gardia, | 290 SL | | | | | | |
| | Duwerneau | 1 , ~ | Q 25 | | 1 | | | |
| | butterhead variety | | | | | | | |
| EU-N | | | | | | | | |
| 2010 | letruce Cappus Cina butterhead variety | 200 SL 4 | , | \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ | | | | |
| 10-2212 | lettuće 💝 | 2000 SL & | 2 % | -07123 | 0.0250 | 45 | 3 | |
| (10-2212-05) | 1 & V | | | | | | | |
| Italy | Cappus | | S O | Ş | | | | |
| | of cina of the cin | | | 9° | | | | |
| 4 | butterhead | | | | | | | |
| EU-S | variety \$ | | , W | | | | | |
| 2010 | ¥ Q | | | | | | | |
| 11-2070 (11-2070-01) | lettace | 200 SL 3 | 2 | 0.125 | 0.0208 | 48 | 3 | |
| (112070-01) | | Q 3 | * | | | | | |
| France | Quenty, O | | | | | | | |
| | open | ř Q | | | | | | |
| | open & at variety | () | | | | | | |
| EU-N & | | ~Q~ | | | | | | |
| 2011 | | | | | | | | |
| FL = formulation | | CC | 1 | CH-code) at las | | | | |

FL = formulation EU-N north our Europe GS = growth stage (BBCH-code) at last treatment

EU-S = southern Europe

Continued on next page...



Table 6.3.1.1-7a (cont'd): Application scenario in residue trials conducted in/on **lettuce** after spraying with BYI 02960 SL 200 in European greenhouses

| Study No. | | | | Application | ! ! | | |
|---|---|--|---|-----------------|-----------------------------|------------|----------|
| (Trial No.) | | | | | | | |
| Country | Crop | *D* | | | | , | © PHIA |
| Location | Variety | FL | No. | kg/ha (a.s.) | kg/h4 (a.s.) | GS 4 | (days) |
| Region | | | | | | | |
| Year | | | (| > _A | | | |
| 11-2070 | lettuce | 200 SL | 2 | 0.125 | © 0.0208 | Č47 ~ | |
| (11-2070-02) | | | | Ô | ₽ . | | |
| Italy | Expedition | | , O | A S | | | |
| | RZ, Green | | | 4 | | 4 | |
| | incised-leaf | | 2 50 | | Q' '\ | |) |
| EU-S | variety | Ç ₂ | , b | | | | |
| 2011 | | | Ŵ. | | | 17/ | 4 |
| 11-2070 | lettuce | 200 SL | ~~ <u>~</u> 2 | 0.105 | \(\text{\text{0.0250}}\). | A 7 | 3 5 |
| (11-2070-03) | | | | | 0.03 | | |
| Spain | Oak Leaf, | | | | | | |
| | leaf variety | | W. | | | | |
| | · | D* <u>*</u> * | | | | |) |
| EU-N | Q, | , "O" | | | P Ď | |] |
| 2011 | @- | \$ 200 EI | | 0.128 | 0.0250- 0.0353 0.0208 | | |
| 11-2070 | lettuce | ≫200 SL | Q" | √ 0.125 ° | ≥0.0208© | Ä | 3 |
| (11-2070-04) | | | | | | | |
| Germany | Judita, head | | | , S | | , Ö | |
| | lettuce « | Q 2 | | | 47 40 | | |
| | | | | O' & | | 1 | |
| | | j` | Z V | y 0' | | | |
| FILN | 4.8 | | | .W | <i>a</i> . | | |
| 2011 | | | | | | | |
| T - f1-ti | } | Y CS - Ot | 1-44 (1990) | CII (V -+ 1 | L V | | L |
| L = formulation | | GS∉ growi | n Stage (BB | | i treatment | | |
| U-N = northern Europe | | EU-S = son | thern Emop | e J | | | |
| | | O, O | ~ 4 | | | | |
| 0 | | | , O, « | Ĵ , O | | | |
| | | | ~ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | Š | | | |
| . F | a 0) | | | ^ | | | |
| Q Z | A & . | | | | | | |
| Ö, Q | | | |) ^Y | | | |
| | | | | | | | |
| 4. | O' | | , Ø | | | | |
| | | O' Z | ~~~ | | | | |
| | | | ~Q" | | | | |
| | . ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ | <i>\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</i> | Y | | | | |
| , ¥ | | | • | | | | |
| Q . | | * 5 | | | | | |
| A . A . | | , 'S | | | | | |
| | | ~O | | | | | |
| ₩ .~~~ | 5 Š | ¥ | | | | | |
| | $\tilde{\mathbb{Q}}$ | | | | | | |
| | ^~ | | | | | | |
| | Ţ | | | | | | |
| | | | | | | | |
| | | | | | | | |
| EU-N 2011 21-2070 111-2070-04) Germany EU-N 2011 L = formulation U-N = northern Europ | , G | | | | | | |



Table 6.3.1.1-7b: Results of residue trials conducted in/on **lettuce** after spraying with BYI 02960 SL 200 in European greenhouses

| Study No. | | | D | esidues (mg/kg) ext | ressed as RVI 0204 | 50 _V ^\ |
|---------------------------|---------------------------------------|---------------------------------|--|---------------------------------------|--|------------------|
| (Trial No.) | Portion | | K | esiuues (mg/kg <i>)</i> exp | BYI 02960- | |
| Country | analyze | DALT | | difluoroacetic | difluor∙9- | total residue of |
| Country | | (days) | BYI 02960 | | | |
| GLP | d | | | acid | ethylamino- furanone | BYA 02960 cal |
| | | 0.1 | | 0.00 | | N N N |
| 10-2212 | head | 0* | 0.23 | < 0.02 | € 0.01 | 0 026 |
| (10-2212-01) | | 0 | 1.5 | © 0.02 | <0.01 | 7.5 |
| France | | 1 | 1.3 | 0.02 | © <0.01 © | |
| | | 3 | 1.4 | <0.02 | <0.01 | |
| GLP: yes | | 5 | 1.2 | 0.02 | <0.0 _k © | |
| 10.0010 | | 7 | 1.4 | 0.02 | \$ <0.6¥ | 9.4 |
| 10-2212 | head | 0* | 2.7 | <0.02 | 0.01 | 2.7 |
| (10-2212-02) | | 0 | 6.7 | _&_^ <0.93° | 7 | ~ 6D' |
| Germany | | 1 | 2.3 | | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ | 2.4 |
| CI D | | 3 | 2.0 | Ø 0.02 Q | | 2.0 |
| GLP: yes | | 5 | | 0.02 | 3 3 3 3 3 3 3 3 3 3 | 1.5 |
| 10.0016 | 1 , | 7 | #\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | 0 × 0 × 0 × 0 × 0 | ~ ~ 0.01 ~ ~ | |
| 10-2212 | head | 0* | 0.13 | \approx \approx 0 \approx 0 | | 9 .16 |
| (10-2212-03) | | 0 | 5.70 | y | S Mai & | © 5.3 |
| Germany | | 1 | 4.6 | <0.025 | 9.01 | 4.7 |
| CI D | | 3 | y 1, 2, 3, 5, 6, 7 | | | 3.5 |
| GLP: yes | | 5 | 2.4 | 0° 40.02 | 0.00 | √ 2.4 |
| | | 7~ ^y | <u> </u> | 0.02 | 6 01 | 1.8 |
| 10-2212 | head | \$0* \$\infty 0 \(\alpha \) | | 0.02 | 30.01 | 0.32 |
| (10-2212-04) | | 70 | 3.1 | | ₹ 0.0 % | 3.1 |
| Netherlands | 4 | | | 9.02 | © 0.920 0.820 | 2.5 |
| CI D. | , i | 30 | | 0.03 | 0.03 | 2.5 |
| GLP: yes | | \$\int_{5}^{5} \tag{5} | | | 0.03 | 2.0 1.0 |
| 10-2212 | \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | 0* | 0.65 | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | 0.01 | |
| (10-2212-05) (10-2212-05) | head 5 | (D) | | 0.02 × | \mathcal{O}_{I} 0.01 0.02 | 0.68 3.9 |
| (10-2212-03) (Italy | | | 3.8 | 0.00 | 0.02 | 2.7 |
| italy | | | 9 2.7 | % <0.02 % | 0.02 | 1.8 |
| GLP: ye | |) 5 S | 1.0 | | 0.02 | 1.3 |
| OLI . y | | 300 | | 0.02 | 0.01 | 0.78 |
| 11-2070 | head | 7," | | © <0.0 <u>3</u> | <0.01 | 3.0 |
| (11-2070-01) | ileaus | 1 3 | 21 | 0.022 | 0.01 | 2.2 |
| France | |] | | × 2000 | <0.011 | 0.62 |
| 1 Tunce ≪C | | | 0.30 | % 0.028 | <0.01 | 0.43 |
| GLP: yes 🔬 |] | 00 014 & | 0.78 0.79 0.18 0 | 0.028 0.026 | <0.01 | 0.43 |
| 11-2070 | head & Q | - ^ | Ψ <u>Δ 1 </u> | 0.040 | <0.01 | 4.1 |
| 11-2070 (11-2070-02) | head | 3 | | 0.059 | <0.01 | 0.80 |
| (11-2070-02) Italy.≪J | | 4 | | 0.039 | <0.01 | 0.52 |
| Italy | | in s | N 27 N | 0.073 | <0.01 | 0.42 |
| GLP: yes | . O . | 14 4 | 0.12 0 0.13 7 7.6 7 | 0.038 | <0.01 | 0.42 |
| 11-2070 | head 🔊 " | | 7.6 | 0.029 | 0.024 | 7.7 |
| (11-2070-03) | 110114 | | 7.6° | 0.025 | 0.027 | 6.0 |
| (11-2070-03) Spain | | 0°7 × | 4.6 | 0.055 | 0.027 | 4.7 |
| Spani Q | Į Į į | ۳ 11.0 | 2.9 | 0.061 | 0.038 | 3.0 |
| GLP: ves | P A | 123 | 2.6 | 0.069 | 0.049 | 2.7 |

DALO day ofter last freatment

* prior to last treatment



Table 6.3.1.1-7b (cont'd): Results of residue trials conducted in/on **lettuce** after spraying with BYI 02960 SL 200 in European greenhouses

| | | | | | | 0 |
|----------------------|----------------|--|----------------------|--|--|---|
| Study No. | | | R | esidues (mg/kg) exp | | total residue of |
| (Trial No.) | Portion | DALT | | | BYI 02960- | |
| Country | analyze | (days) | BYI 02960 | difluoroacetic | diflu oro - | total residue of |
| CLD | d | (44.5) | 21102500 | acid | ethylagiino- | BYL02960 Fal |
| GLP | 1, , | | 2.5 | 0.025 | furamone 0.015 0.014 0.010 0.010 | |
| (11-2070 | head | 0 | 3.7 | 0.027 | 0.015 | |
| (11-20/0-04) | | 3 | 2.6 | 036 | 0.014 | |
| Germany | | 10 | 0.87 | 0.043 | Q <0.010 Q | 0.93 |
| GLP: ves | | 14 | 0.40 | 0.033 | <0.01 | 2.7 0.93 0.53 0.53 0.53 0.53 |
| DALT = days aff | er last treatr | nent | 0.25 | A Q | 6° & 3 | 2.7 2.7 0.93 0.53 0.53 0.53 |
| * prior to last trea | atment | | Q | | | |
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| | <u> </u> | The state of the s | | | | |
| ~ ° | | | | 0.053 0.041 0.053 0.041 | | |
| | | | | difluoroacetic acid 0.027 0.036 0.043 0.053 0.041 | | B 14,02900; all |
| | | | | | | |
| | | | | | | |
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Table 6.3.1.1-8: Recovery data for BYI 02960 in **lettuce**

| Study No. | | | | | Fortifi- | I | Recove | ry (%) | ° | <u>~</u> |
|------------------------|------------------|----------|--|-------------|---|--|--|-------------------------|--------------|-------------|
| Trial No. | Crop | Portion | a.s./ | n | cation | | 1 | l e | | |
| GLP | - · · · | analysed | metabolite | | level | Individual | Min | Max | Mean | ₹RSD |
| Year | | | | | (mg/kg) | recoveries 🍣 | | _W | | |
| 10-2213 | Lettuce, head | head | BYI 02960 | 15 | 0.01 | 79;87;102;106; 107;109;110;116; | 79 | 117 | . 4004 | 10.7 |
| 10-2213-01 to | | | | | Ĉ'n | 92;97;107;1 0 8; 114;116;1(1,7 | % √ ° | | | 9 |
| 10-2213-05 GLP: yes | | | | 5 | Ø ₹ 0 | 88;90;99,92;93 | 88 | 920 | 1 | 4 .2 |
| 2010 | | | | 2 | \$0.50 1.0 | 103;196 9294 ° 4 | \$103 92 _% | ∯06 94 © | 5 105€ oØ | , |
| | | | 4 | | 5.0 | 90;98, 0 | 20 | 980 | 29 4 | |
| | | | & | 26 | &verall | | 9 79 | 11√7 | 100 | 10.5 |
| | | | difluoroacetic acid | 125 | 0.02 | 90%3;94%\$9,97; | * 86 L ************************************ | 116 | 980 | 10.2 |
| | | | | 3 | 0.05 | 90;99;98 | 90 | 98 6 | 94 | 4.3 |
| | | | | 5 | 0,20° | 93:10490:91:62 | 910 | 94 _© 1,64 | 93 93 | 4.7 |
| | | | | 2 | 71.0 | 93;10390;91; 92 90; 92 |) 90 _{&} | 92 | 91 | , |
| | | Z, | | 2.0 | 5.0 5.0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 96,89 | 890 | 90 | 90 | 7.0 |
| | | | BYI 02960- 25 | 15 á | overall 90.01 | 87; 93; 95; 100; | \$ 6 ≥ 83 | 116 107 | 95 94 | 7.9 8.4 |
| | Q Q | | BYI 02960- diflororeth amenone | J. | | 180; 104; 105; (5) 180; 104; 105; (5) 180; 104; 105; (5) 180; 104; 105; (6) | , 55 | | | |
| | | | | 5 % | 0.10 | 85; 9 8; 97; 9 7; 99 | 85 | 99 | 95 | 6.1 |
| | | | | 27 3 | 0.50 | 95, 109 086: 108 | 97 86 | 109 101 | 103 94 | |
| |)) | .1. | | 2 | 5.0 | 97: 9 6 | 96 | 97 | 94 | |
| KG" | \$ | | | 26 | overall | | 83 | 109 | 95 | 7.7 |
| 11-2071 | Lettuco | head | \$\$¥I 029660 | ř | ~ ″ | § 88 | 88 | 88 | 88 | |
| 11-2071-01 | | | | 3 | 0.10 | 98;111;95 | 95 | 111 | 101 | 8.4 |
| to 11-2072-04 | | | | 3 5 5 | ayerall | 104 | 104 88 | 104 111 | 104 99 | 8.8 |
| GLP: yes | | | difluoroacetic acid | 1 4 | 0.02 | 87 | 87 | 87 | 87 | 0.0 |
| &) &) | | | | | 0.20 | 113;95;95 | 95 | 113 | 101 | 10.3 |
| Ŋ | | | | 4 | overall | | 87 | 113 | 98 | 11.3 |
| Å | | | BY 02960 diffuoroethyl- aminof@anone | 1 | 0.01 | 105 | 105 | 105 | 105 | |
| Ţ, | | | y ~\{\} | 3 | 0.10 | 98;105;99 | 98 | 105 | 101 | 3.8 |
| | | | | 4 | overall | | 98 | 105 | 102 | 3.7 |
| | | | | | | | | | | |



IIA 6.3.1.2 Hops

BYI 02960 (common name: flupyradifurone) is to be registered in northern Europe for use in hope. Thus, European residue data in hops are presented below to support the intended "safe" use. Use pattern (GAP) information is summarized in Table 6.3.1.2-1.

Table 6.3.1.2-1: Use patterns (GAPs) for the spray application of BYI 02960-containing formulations in/on hops in European fields

| Description | Reg. | No. of appls. | Application rate per treatment per season (g a.s./ha) (g a.s./ha) | ^ | Interval | |
|-------------|------|---------------|---|-----------|----------|------------|
| "safe use"* | EU-N | 1 | 120 | 2000-3000 | _~ | <u>2</u> 1 |

EU-N = northern EU residue region

In order to support the EU "safe use" @ BYJ 02960 sets of &I European fields in 2010 and 2011. BYI 02960 SE 200 (containing 2012/L BYI 02960 a.s.) was applied once. Samples were taken at vacious intervals subsequent to the application. The envisaged PHI was 21 days.

Residue levels of BYI 02960 and its metabolites DFA; and DFEAF were analyzed individually and summed to yield the calculated total residue of B 602960. Total residue levels determined in the trials reached a maximum of 2.4 mg/kg indried cones, with an STMR of 1.1 mg/kg.

The number of trials conducted for each use described above (inclumnformation on geographical region and vegetation period is summarized below in table 6.3 2-2.

2-2: Overview of Faropean residue trials conducted in hops per geographical "residue region" and Vegetation period, including key results

| | No. of trials Veget. Operiod 2000 2000 | Residue levels* mg/kg) HR STMR | Report No. | Dossier ref.: IIA 6.3.1.2/ |
|----------------------------|--|--|------------------|----------------------------|
| tri gis in Europe 🧞 | | Ş | | |
| "safe use" EU-N | | green cone: 0.87 0.47 dried cone: 2.4 1.1 | 10-2225, 11-2076 | 01, 02 |

EU-N = northern (residue region)

use based on an SL 200 formulation

residue results based on total fesidues in samples baken on day 21 (= envisaged PHI)

Northern Europe (residue region)

| Report: | KIIA 6.3.1.2/01, , A. 2012 | | |
|---------------|--|--------------------|----------------|
| Title: | Determination of the residues of BYI 02960 in/on hop aft | er spraying of BYI | 02960 SV 200 0 |
| | in the field in Germany | | |
| Report No. & | 10-2225, dated February 13, 2012 | | |
| Document No.: | M-425351-01-1 | 4 | \$ \$ 0 |

| | | _ |
|----------------------------|---|----------|
| Report: | KIIA 6.3.1.2/02, , , A. 2012 , , A. 2012 | _ |
| Title: | Determination of the residues of BYI \$2960 in/on hop after spray application of BYI \$2960 SL 200 in Germany | X |
| Report No. & Document No.: | 11-2076, dated February 13, 2012 | |

| Guidelines (applies to both studies): | Directive 91/404/EE@resides in or on treated products, food and feed |
|---------------------------------------|--|
| GLP (applies to both studies): | yes (certified laboratory); Deviations, non 🗸 🛴 |

I. Materials and Methods

Eight residue trials were conducted in the porthern European residue region, as follows

In 2010 and 2011, 8 trials (4 trials per year, at in Germany) were conducted to support the use of BYI 02960 SL 200 in Grops (2012, KIIA 6.39.2/0) and /02). A single application was made 21 days before the projected harvest at a nominal rate of 0.6 L/ha, corresponding to 120 g/ha BYI 02960 as Water rates were 2000-3000 L/ha, reflecting local practice in the trial regions. All to atments were made at the scheduled rate.

Samples of green hop cones were taken immediately subsequent of the final application and at several intervals thereafter (in to 28 days after treatment). The envisaged PHI was 21 days. (In two trials, the PHI samples were taken on day 20; in one other, on day 22.) In addition to the green cone samples, additional cones were taken at the later sampling intervals (nominally days 14, 21, and 28) and dried according to candard practice, as try cones are the primary traded commodity from the grower to the market.

The samples were analyzed for the parent compound and its metabolites DFA and DFEAF using method 01304 (cf. KII/o 4.3/o3). The respective LOQs for the 3 analytes were 0.10, 0.20, and 0.10 mg/kg (all in parent equivalents), yielding a calculated total-residue LOQ of 0.40 mg/kg.

II. Findings

During the conduct of the 2010 studies, both validation and concurrent recoveries of BYI 02960 and its metabolites DFA and DFEAF were obtained from samples of hop cones (green and dried). (The validation work was done due to the fact that hops are considered "difficult to analyze" but were not included in the original validation set for method 01304. Details of the validation recoveries are

presented in chapter 4.3 of this dossier with method 01304.) In 2011, samples were analyzed for concurrent recoveries.

Concurrent recovery samples for parent compound and DFEAF were spiked at levels of 0.10 mg/kg and 1.0 mg/kg, as well as 5.0 mg/kg (expressed in BYI 02960 equivalents). Mean recoveries of green cones in 2010 were 80-94%, with RSDs of the larger validations sets (n > 2) 6.0-13.9%; n = 1-6. In 2011, mean recoveries were 85-91%, with RSDs of the larger validation sets (1.0 mg/kg) of 0.72.3%; n = 1-3. All values were within acceptable ranges.

Mean recoveries in dried cones in 2010 were 103-112%, with RSD of the larger validations sets [n>2]) of 1.4-7.2%; n=1-6. All of these values were considered to be acceptable because, even in the case of values over 110%, they were only marginally higher and the RSD values were very low; also, in the cases of the exceptions, the overall means of all recovery analyses for the given matrices with each individual analyte were 107% and 108%, with overall RSDs of 6.2% and 4.2%. In 2010, recoveries were 79-91%; n=1 for each concentration.

For DFA, concurrent recovery samples were spiked at levels of \$\omega\$20 mg/kg and 1.0 mg/kg, as well as 5.0 mg/kg (expressed in BYI 02960 equivalents). Mean recoveries in green cones in 2010 were 83-99%, with RSDs (of the larger calidations sets \$\omega\$n > 25 of 8.2% and 8.9%; \$\omega\$n=1-6. In 2011, mean recoveries were 79% and 88%, with an RSD of the larger validation set \$\omega\$1.0 mg/kg) of 3.2%; \$n=1-3\$. All values were within acceptable larger.

In dried cones, mean $\sqrt{1}$ A recoveries in 2010 were 98-106%, with RSDs of the larger validations sets (n > 2) of 3.1 and 8.9%; n=1-6. $\sqrt{1}$ by 2011 recoveries were 70 and 73%; n=1 for each concentration. The values were all within acceptable ranges

Details of recovery data are shown in table 6.3 1.2-4. All trial data are summarised below in table 6.3.1.2-3. It is not all trial data are summarised below in table 6.3.1.2-3. It is metabolities DFA and DFEAF are expressed in BYI 02960 equivalents. From these individual values, the "total residue of BYI 02960" was calculated as the sum of these three analytes, expressed in parent equivalents.

Relevant residues of BYI 02960 ere determined in loop cone samples taken at various intervals after application.

Analyses of green cones showed that total residue levels generally declined with time. On day 0, immediately following treatment, residue levels in green hop cones were between 0.79 and 2.7 mg/kg (median 1.3 mg/kg). By day 21—the envisaged PHI (samples were taken on day 20 in two trials and day 22 in the further trial)—the levels had declined to <0.40-0.87 mg/kg (n=8), with a median value of 0.47 mg/kg. Residues continued to decrease until day 26-28, the final sampling event, when levels ranged from 0.40-0.69 mg/kg (n=8, median 0.41 mg/kg).

The residue behaviour was somewhat less predictable in dried cones. Whereas a decline was generally evident over time, in three of the trials, residue levels at the final sampling interval (28 days) were higher than at the PHI (day 21). Residue levels on day 21 (20 in two trials, 22 in one other) ranged

from 0.56-2.4 mg/kg, with a median value of 1.1 mg/kg. On day 28 (day 26 and 27 in one trial each), they were generally lower, at <0.40-2.3 mg/kg (median 0.71 mg/kg). Taking the highest residues at relevant sampling intervals into consideration (either day 21 or 28), residues ranged from 0.61-2.4 mg/kg; the median value was 1.2 mg/kg.

III. Conclusions (hops)

In order to support the use in the EU of BYI 02960 in hops, 8 valid tries were conducted in the northern European residue region in the years 2010-2011. BYI 02960 was applied once as an \$0,200 formulation at an active substance rate of 120 g/ha All applications were at the required rates, and all trials were conducted according to GLP.

To evaluate this use, samples of both green and dried hop ones were taken at several intervals after the final application, including the envisaged PHT of 24 days. Samples were analyzed for the relevant residues of BYI 02960, comprising the parent compound and its metabolites DF and DFEAF. The residues of all three analytes were summed to yield a calculated total residue of BYI 02960. The results of the trials presented above demonstrate that:

- total residues of BYI 02960 dissipated spidly in green hop cones, from levels of 0.79-2.7 mg/kg on day 0 after the treatment to 0.40-0.87 mg/kg on day 21 (envisaged PPI). The respective median values were 1.3 and 0.47 mg/kg.
- in dried cones, residue levels also tended to decline with time. When evaluating the highest residues at retovant sampling intervals (either day 21 or, in three trials day 28), residues ranged from 0.61-2.4 mg/kg, with a median of 3.2 mg/kg.



Table 6.3.1.2-3a: Application scenario in residue trials conducted in/on hops after spraying with BYI 02960 SL 200 in the field

| DII | . 02960 SL 200 | in the neid | l. | | | | 0 |
|---|---|---------------------------------------|----------------------------------|---------------------------------------|-----------------------------|----------------------|---------------|
| Study No. | | | | Application | | | |
| (Trial No.) | | | | | | | |
| Country | C | | | | _ | | 65 TTT 10° |
| Location | Crop Variety | FL | No. | kg/ha | kg/hl | GS | (days |
| | variety | | | (a.s.) | (a.sQ) | | (days) |
| Region | | | | | 4 | Q | |
| Year | | | | | | , O' | |
| 10-2225 | hop | 200 SL | 1 (| ් _ථ 0.12 | \$0.004 | BBCH: ~ | 7 21 5 5 0 |
| (10-2225-01) | Hallertauer | 200 52 | | V 0.12 | W | Ø3-74 _~ 0 | * |
| Germany | Gold | | | | | \$ 5-74 \$ \$ | |
| Germany | Gold | | a y | | | | |
| | | | 4 | Q," | ~ ~ ~ | . | |
| | | | | ~ , ' | 9' Q' | | 0,7 |
| EU-N | | | | | | | |
| 2010 | | <u> </u> | | | | | |
| 10-2225 | hop | 200 SI | JΨ | 0.12 | ∞ © 0055 © | 1 75 | 21 |
| (10-2225-02) | Magnum | | | <i>V</i> Q, | | | b" & |
| Germany | | | | | | | |
| Germany | | | | | | | |
| | | | | ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ | | | 0~ |
| | | | . 9 5 | 9 . 6 | | | <u> </u> |
| | | Ø. | "Y . " | | | | ∮ |
| EU-N | | | | | ©0.0055 | | |
| 2010 | \mathbb{Q} | | \$ | | | P &. | |
| 10-2225 | hop \\ Hallertauer \(\) | 7200 St | l "q" | 0.10 | ≈0.0055 ° | Ø 5 | 20 |
| (10-2225-03) | Hallertauer | \$200.8L | 4 0 | , 4 % | \$0.0055 \$\frac{1}{2}\$ | Po | |
| Germany | Hallertauer Magnum | | | , , , , , , , | | | |
| | 7 | | | | J' 4 | 7 | |
| | | | | ĺo, «^ | | | |
| FILM | y o z | ¥ | Z L |) O' | | | |
| EU-N | T. 3 | | P S | 0, | - " | | |
| EU-N 2010 | hop Hallertauer Magnum hop Hallertauer Trachtion hop Hallertauer Trachtion hop Hallertauer mittellirüh | W N | , 9 | | w . | | |
| 10-2225 | hop 😽 | 200 \$ ₺∕ | | ○ 0.1 2 | £ 0055 | 85 | 21 |
| (10-2225-04) | Hallestauer 🧷 | V (4.0° | | | | | |
| (10-2225-04) Germany | Tradition | \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | | | ¥ | | |
| | | 12 8 | <i>10</i> ° | | | | |
| | | | | | | | |
| FILM | Z ., O | | $^{\circ}$ $^{\circ}$ $^{\circ}$ | Y' , Q | | | |
| 2010 | | | 7 & | 3 | | | |
| 2010 | 10 | W = 00 0 0 0 0 | " _0" | * | 2.225 | | 21 |
| 11-20/6 | Thop S | ₩200 SK) | | © 0.15 | 0.006 | 75 | 21 |
| (11-2076-01) | Hallerbruer (| | | | | | |
| Germany 🔊 💍 | mittelfrüh 🥎 | | N | Ĩ | | | |
| | | | | | | | |
| EU-N | | | . W | | | | |
| 2011 | , | | | | | | |
| Z011 | <u> </u> | | | CII 1) (1 | | | |
| FL = formulation \(\sqrt{\circ}^* | | GS≠ grow | th stage (BE | BCH-code) at las | st treatment | | |
| EU-N [№] northern Europe | ~ ``` | × '0, | | | | | |
| <i>\mathcal{Q}</i> \(^{\cdot}\) | | | | | Con | tinued on ne | ext nage |
| A . A | | , | | | Con | iiiiiica on m | em page |
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| A SA | - | | | | | | |
| Õ | | | | | | | |
| EU-N 2010 11-2076 (11-2076-01) Germany EU-N 2011 FL = formulation EU-N = northern Europe | | | | | | | |
| | | | | | | | |



Table 6.3.1.2-3a (cont'd): Application scenario in residue trials conducted in/on **hops** after spraying with BYI 02960 SL 200 in the field

| Study No. | | | | Application | | | |
|------------------------------------|-----------------|------------------|----------------|---------------------------------------|-------------------|---------|---|
| (Trial No.) Country Location | Crop Variety | FL | No. | kg/ha (a.s.) | kg/hl | GS | PHI (days) |
| Region Year | | | | | -4 | , S | |
| 11-2076 | hop | 200 SL | 1 (| <u>څ</u> 0.15 | \$0,006 | BBCH: A | 21 \$\frac{1}{2} \frac{1}{2} \f |
| (11-2076-02) | Magnum | | - √2 | ₹ | \$0.006 | ©73 «O | |
| Germany | magnam | | * | | ₽ . | , Q | |
| | | | | | | ©73 \$ | |
| | | | | Q | 6 8 | Sy. | |
| | | | Q) | | Q' ~ | NO G | <i>\\</i> |
| EU-N | | Q ₁ | , co | | | | |
| 2011 | | l ő | , Õ | | | | Λ |
| 11-2076 | hop | 200.\$L | | | 0.006. | ®6 Q | 20% |
| (11-2076-03) | Hallertauer | | | 3.1 4 | | | |
| Germany | Tradition | | | | | | |
| | | | Z . | | | aŞ | |
| | Q, | D ^v 💥 | | | | | |
| EU-N | Į Ž | | | | | | |
| 2011 | Ø, | | | | | | |
| 11-2076 | hop Tettnanger | 7200.8L | " " | 0 18 | 0.006, 0.0075 | BBCH. | 22 |
| (11-2076-04) | Tettnanger & | 2000 | \$ 1 | | Ø 0.00 / 3 | 78 | |
| Germany | Tetthanger of | | | , , , , , , , , , , , , , , , , , , , | | | |
| o vinium y | ** A | | a.Y | | | ¥ | |
| | | | | | | | |
| EU-N | | <i>\@</i> | \$ 1 | " | P _x 4, | | |
| EU-N 2011 FL = formulation | | | | ast treamsent | Q ₁ | | |
| FL = formulation | 10 | | | | <u> </u> | l | |

FL = formulation
EU-N = northern@urope

GS = growth stage (BBCH-tode) at last treatment with the property of t



Table 6.3.1.2-3b: Results of residue trials conducted in/on **hops** after spraying with BYI 02960 SL 200 in the field

| Study No. | | | Res | sidues (mg/kg) ex | oressed as BYI 02 | 960 🔎 🤝 |
|---------------|------------------------|--------------|---|---|-------------------------|--|
| (Trial No.) | Portion | DALT | | (g,g) (] | BYI 02960- | total residue of |
| Country | analyzed | (days) | BYI 02960 | difluoroacetic | difluoro- | BY 202960 |
| GLP | | (,) | 211 02 00 | acid | ethylamino- furanone | Cal S |
| 10-2225 | cone, green | 0 | 1.3 | < 0.2 | √20.1 | 1.65 |
| (10-2225- | | 7 | 0.62 | 0.2 | <0.1 | 7 0 92 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 |
| 01) | | 14 21 | 0.29 0.52 | <0.2 <0.2 | ②″ <0.1 ② <0.1 | 0.59 |
| Germany | | 28 | 0.16 | <0.2 | <0.1 | 0.46 |
| GLP: yes | cone, kiln-dried | 14 | 1.5 | 0.27 | 60.15 × | |
| | | 21 28 | 0.81 | 0.20 | 0.1 × 0.1 × 0 | |
| 10-2225 | cone, green | 0 | 0.49 | © <0,2 | 20.1 | 0,79 |
| (10-2225- | 1,811 | 8 | 0.27 | ©0.2 0° | 3 < 0.1 3 | ₽ .57 €° |
| 02) | | 13 20 | 19 0 | 0.2 | <000 | \$0.49 @* |
| Germany | | 27 | (0.1°) (0.1°) | V 502 0 | 20.1 3 | <0.4° √ .4° √ |
| GLP: yes | cone, kiln-dried | 13 | Q 054 3 | ~\$\display 0.2 \display \dinfty \dinfty \display \display \display \display \display \display \display \display \display | (C) <0.16° | 0.84 |
| | | 20 (27Q | Ø:48 × <0.1 ≥ | <0.2 | | 0.78 <0.4 |
| 10-2225 | cone, green | | V 1.40 & | 7 30 .2 6 | 0.1 | 1.7 |
| (10-2225- | | 7 7 | 9 0.54 ⁰ | ₹ 0.2 © | <0.1 € | 0.84 |
| 03) | Pa Pa | 14 % | 0.36 A | 0 < 0.2 | (100) (100) (100) | 0.66 0.50 |
| Germany | | 28 | Q<0.15 | (< 0.2 V | \$0.1 \(\) | <0.4 |
| GLP: yes | cone, kiln/dried | \$14 <u></u> | 9 1.9 D | 0.25 | & <01,00° | 1.7 |
| | | 21 | $9.77 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ $ | \$\sqrt{0.28} \cdot \c | <0.1 <0.1 | 1.1 0.62 |
| 10-2225 | cone, green | | 0.56 | | <0.1 | 0.86 |
| (10-2225- | | 8 8 | V 0027 J | <0.2 | · \0.1 | 0.57 |
| 04) | | 14 € 21≥ | 0.17 | \$\left\{0.2\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | <0.1 <0.1 | 0.47 0.44 |
| Germany | | 28 | <0.10 | © 20/2 ° | <0.1 | <0.4 |
| GLP: ye | cone, kilm dried | 1 4 ' | 0.54 | ₹0.2, © | < 0.1 | 0.84 |
| | | 28 | 0.49 | (0.21) <0.2 | <0.1 <0.1 | 1.2 0.79 |
| DALT = days a | after last treatus ant | | | | | |
| | | | | Ø, | Conti | nued on next page |
| 1 | | | | Ö V | | |
| T. | , Q | D . | |) | | |
| .// . | | * ~ | | | | |
| 4 | | | Q 3 | | | |
| | | | Q A | | | |
| , | | | j 'Y | | | |
| Š | ntter last treataint | * | | | | |
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| | |) Y | | | | |
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| , ŠÕ, | | | | | | |
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Table 6.3.1.2-3b (cont'd): Results of residue trials conducted in/on **hops** after spraying with BYI 02960 SL 200 in the field

| (Trial No.) | | | Residues (mg/kg) expressed as BYI 02960 | | | |
|--|---|-------------------------|---|---|--|---|
| Country | Portion analyzed | DALT (days) | BYI 02960 | difluoroacetic acid | BYI 02960- diflyoro- ethylamino- | total sesid BYI 029 |
| GLP | | | | | faranone | 0, 0 |
| BYI 02960 S | L 200 | ı | | Ö | <u> </u> | |
| 11-2076 | cone, green | 0 | 2.4 | <0.2 | <0.1 | \$\\ \times \\ \t |
| (11-2076- | | 14 21 | 0.47 0.51 | <0.2 O V <0.2 S | <0.1 <0.1 <0.1 <0.1 | 0.7 |
| 01) Germany | | 28 | 0.39 | <0.2 <0.2 <0.2 | ° <0.1 | 0.69 |
| Germany | cone, kiln-dried | 21 | 1.0 | 0.38 | | . Ø15 ≈ |
| GLP: yes | Cono, min unou | 28 | 1.8 & | 6° 65° 4 | 0.1 0.1 0.1 0.1 0.1 0.1 | 2.3% |
| 11-2076 | cone, green | 0 | 0.5\$ | 0.2 | <0.10 | 0.285 |
| (11-2076- | 7.0 | 14 | <u>0</u> 21 | ©<0.2Q | <0.1 C | 0 7.51 |
| 02) | | 21 28 | \$\\ \delta 0.1 \\ \delta 0.10 \\ \delta \tag{10} | \$\frac{1}{2} \text{\$\frac{1}{2}\$} | | 0.40 |
| Germany | 1.1 1.1 | | 0.10 | | 0.1 | 0.40 |
| CI D: was | cone, kiln-dried | 21 28 | | ₹0.2 ° <0.2 ° | | Ø.56 Ø.61 |
| GLP: yes 11-2076 | cone, green | 0Q | 21 | | | \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ |
| (11-2076- | cone, green | 13 | 2.1 | | 0.1 C | 2.4 1.1 |
| 03) | | ~ 2 0 | ~ 0.57 © | \$\ \langle 0.2 \ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ | <0.0 | 0.87 |
| Germany | | ©"26 _{&} _ | 0,23 | <0.20 | 9 9 1 | 0.53 |
| | cone, kiln-drie | 200° | 2.0 0.49 | 0.27 | 70.1 70.1 70.1 | 2.4 |
| GLP: yes | | 26 | 0.49 | \$ 60.2 | «√ ₄ <0.†«> | 0.79 |
| 11-2076 | cone, green | \$ 0 12 × | 0.81 | <0.2 | (L) <0) | 0.91 0.41 |
| (11-2076- | | 22 | 0.1 | \$\frac{10.2}{\pi}\$ | (0.1 | <0.41 |
| Germany | | 28 | 0.17 | 20 .2 | <0.1 | 0.41 |
| | cone, kilnerried | 22 | V ,0743 , V | <0.2 | <0.1 € | 0.73 |
| GLP: yes | | 28 | 9 .29 | (< 0 g | <0.1 | 0.59 |
| DALT = days | after last treatment | 4 1 P | | | | |
| | | Z . | | | | |
| Ky" | ~ ~ ~ | 0) 1 4, | | | | |
| | \$. 4 | Ş | | | | |
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| | | | | F D | | |
| A | | | | F D | | |
| | | | | | | |
| | | | | F P | | |
| | | | | F Y | | |
| \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ | | | | | | |
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| | | | | | | |
| | cone, kiln-dried cone, green cone, kiln-dried after last treatment | | | | | |



Table 6.3.1.2-4: Recovery data for BYI 02960 on hops

| Study No. | | | | | Fortifi- | | Recov | very (%) | @.° | _ |
|------------------|---------------------------------------|----------------|--|--------------|--------------|---|------------------|--|--------------------|----------|
| Trial No. | Crop | Portion | a.s./metabolit | n | cation | | ı | ا . ا | | |
| GLP | Стор | analysed | e | | level | Individual ^ | Min | Max | ≯Mean _© | * RSD |
| Year | | | | | (mg/kg) | recoveries |) | Ţ, | | |
| 10-2225 | hop | cone, green | BYI 02960 | 6 | 0.10 | 89;89;91;94; 👸 95;107 | 89 | 107¥ | . 19 4 | 7.2 |
| 10-2225-01 to | | | | 5 | 1.0 | 85;86;87,92,98 | 85 | O ₉₈ & | 900 | 6.0 |
| 10-2225-04 | | | | 1 | \$ | 87 | 87 E | 87 | | L. |
| GLP: yes 2010 | | | | 12 | overall | 04 | 3 5 | 107 | \$ 92 (| 6.8 |
| 2010 | | | difluoroacetic acid | 64® | | 95,92;95;99; 100;1150 | O)1 | ¥15 & | | 8.9 |
| | | | <u></u> | 95 1 | 1.0 | 76;79;83;84;94 <i>°</i> 86;~~~~ | \$6 \$6 | ************************************** | 83 86 | 8.2 |
| | | | O` | 1 12 2 | overall | | 76 S | 115 | Q1 ° | 11.7 |
| | | | BYI 02960- difluor vethyl- aminofuranone | 76 , W | 0.10 | 68;72,79;85,7 | 68 V | 96 V 2 | 83 | 13.9 |
| | | | | \$ | 400 | 96;77:38;84;93 | 76. | 9.1© %\$0 | 81 | 7.8 |
| | | W | | 12 | overall | | 89 968 & | | 80 82 | 10.6 |
| | | cone | BYI 02960 | 6 | 0.10 | \emptyset 102, \emptyset \emptyset , $103, \emptyset$ | 102 | 106 | 104 | 1.4 |
| | | kiln-dried | | 5 | 1.00 | 104 (\$\delta 5;106) 107,108;\delta 1; 4,14;11,5 | ₩ 1 07 | 115 | 111 | 3.2 |
| | Š | | | Ĭ | \$3.0 ° | 112 0 | 112 | 112 | 112 | |
| | | | | 12 | Doverad | L O | 102 | 115 | 108 | 4.2 |
| | | | difluoroacetic aod & | | 0.20 | 82;96;97,103; 103;106 | 82 | 106 | 98 | 8.9 |
| | ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ | | | 5 (| 71.0 | 101/105;106; 109;110 | 101 | 110 | 106 | 3.1 |
| | · (| | | | 5 0 . | 9 8 | 98 | 98 | 98 | |
| | 29 3 | 4 4 | | 12 | {øveral⊮ ̂ | | 82 | 110 | 101 | 7.3 |
| | | | BYK02960 difforoethyl- aminofuranone | 6 | 0.10 | 89;100;106; 107;107;108 | 89 | 108 | 103 | 7.2 |
| 4 | Q O | | | 5 (| 1.0 | 108;109;110; 112;114 | 108 | 114 | 111 | 2.2 |
| | °, | | | | 5.0 | 112 | 112 | 112 | 112 | |
| ~~ | | | | 12 | overall | | 89 | 114 | 107 | 6.2 |
| | | | BYF029604 difference hyl- anino furanone | | | | | Continu | ed on no | ext page |



Table 6.3.1.2-4 (cont'd): Recovery data for BYI 02960 on hops

| Trial No. | | | , | | Fortifi- | | Recov | very (%) | a,° | ^ . |
|------------------------|------|------------------|--|----------|----------------------------|---|-------------|--------------------|-------------|------------|
| GLP Year | Crop | Portion analysed | a.s./metabolit e | n | cation level (mg/kg) | Individual recoveries | Min | Max \$ | Mean | RSD |
| 11-2076 | hop | cone, | BYI 02960 | 1 | 0.10 | 90 8 | 90 | 90 4 | . 490 | |
| | Пор | green | B11 02 9 0 0 | 3 | 1.0 | 84;85;85 | 84 | \$5 × | \$ 85 m | 0.7 |
| 11-2076-01 to | | | | 4 | overall | | 84 | () 1 90 ≫ | 86 | 3.1 |
| 11-2076-04 GLP: yes | | | difluoroacetic acid | 1 | 1 20 | 88 | 880 | 88 | 8 8 | Sy Sy |
| 2011 | | | | 34 | 1.0 | 75,79;82 | | 82 C | 79 | 3.2 |
| | | | BYI 02960- // | 1 | overall ~ | | 1(0) | 885 84 | \$2 \$91 | 5.9 |
| | | | difluoroethylaminofuranone | | ·0.10 5 | 91 | | , \$1° | 》 | |
| | | | | B | overall | 87;90,91 | 87 O | 9 5 4.91 | 8 9 | 2.3 2.1 |
| 11-2076 | hop | cone, | BY-Q02960* | 120 | Q de | IUNU (° n 🙈 | ⊌un ⊚ | f 9() | 90 | 2.1 |
| | P | kiln-dried | | N F | 1.0 | 87 N N | 87\$ | | 87 | |
| 11-2076-01 to | | | | 2 | overall) | 87 5 5 | | ~9 0 | 89 | |
| 11 2076 04 | | | | | 0.49 | | 73 | 73 | 73 | |
| 2011 | | | | 1 | 1.0 | | Z\$ | 70 | 70 | |
| | | | | 20 | overall | | 9 70 | 73 | 72 | |
| | | | BVI 02960- Affluoroethyl- aminofaranone | | <u>0</u> .10 | 079 ° 4 ° 4 ° 4 ° 4 ° 4 ° 4 ° 4 ° 4 ° 4 ° | | 79 | 79 | |
| | | | | | 1.0° | | 91 79 | 91 91 | 91 85 | |
| | | | By 1 02960- William of the control o | | | | | | | |



"FURTHER USES"

The following paragraphs describe all uses to be intended for registration in Europe besides the two "safe uses" lettuce and hops, which have been submitted in May 2012.

IIA 6.3.1.3 Pome fruit - apple

BYI 02960 is to be registered in Europe for use in pome fruit. Europe in residue day in appe are therefore presented below to support the intended us Use pattern (GAP) information, Reluding the European "agricultural use" as well as the "home & arden use Table 6.3.1.3-1.

Table 6.3.1.3-1: Use patterns (GAPs) for the sprag in/on apple in European field

| Description | Reg. | No. of apple | per freatment (g a [ha×m]) | per season | Water volume (L/ma×m) | Saterysu) (dsys) | PHI (days) |
|------------------|------|--------------|------------------------------|----------------|-----------------------------|---------------------|------------|
| "home & garden"* | EU-N | 2 📞 | Ø60† √ | @120-36♥ | > 250- <i>5</i> 00 | <u>a</u> 14 | 14 |
| nome & garden | EU-S | 10 | \$\int 67.5\pi\$ | € 68-203 € | 250,500 |) n/a | 14 |
| agricultural** | EU-N | | | 0 -180% | 250-500 | n/a | 14 |
| agriculturar | ₽Ŭ-S | 0 1 × | 0,60 [†] \$ | €0-18P | 250-500 | n/a | 14 |

L 200 formulation

sets of GLP trials were conducted in both the northern and souther European resource regions in 2010 and 2001. In Norther and in southern European apple trees, BYI 02960 was applied twice as an SL formulation (BYF02960 SL 200, containing 200 g/L the residue trial conducted in southern Europe in 2011, where only a single application

At the beginning of the program the ovisage GAT specified two applications in both northern and southern Europe. However, this GAP was changed in southern Europe, and only one application became the current GAP for uses in that region. The trials conducted in southern Europe in 2011 were performed according to the newer (current) GAP. In northern Europe, the 2-application scheme will be supported to home & garden use (SL 50), while the main agricultural use (SL 200) will also be limited to a single woplication.

In the 2010 trows and borthern 2011 trials, samples were taken immediately prior to the second application; thus reflecting conditions representative of a 1-application, 14-day PHI use pattern. In all trials, samples were taken at various intervals subsequent to final application, with an envisaged PHI of 14 days, reflecting the intended worst-case PHI.

EU-N = northern European esidue region

* "home & garden" with an L 50 formulation (available to the reserved)

core rate per many crown eight (6). Test bases of a many H of 36, equation to max. 180 or 203 g a.s./ha, respectively.



Residue levels of BYI 02960 and its metabolites DFA and DFEAF were analyzed individually and summed to yield the calculated "total residue of BYI 02960". The most critical residue levels were observed in the northern European trials, in which a highest total residue value (HR) of 0.37 mg/kg was determined. The STMR in these trials was also the higher of the two sets, at 0.12 mg/kg.

The number of trials conducted for each use described above (incl. information on geographical region and vegetation period) is summarized below in table 6.3.1.3-2.

Table 6.3.1.3-2: Overview of European residue trials conducted in apple per geographic region" and vegetation period, including key results

| Use description (cf. table 6.3.1.3-1) | Region | No. of trials Veget. period Q 2010 2011 | | e leves | Dossio ref.: |
|---------------------------------------|--------|---|------|------------------------------------|----------------|
| trials in Eu | ROPE | | | | |
| "home & garden" | EU-N | 6 | 0.7 | .13 10-21 , | 11-2077 01, 02 |
| "home & garden" | EU-S | 6 4 0 2 | 0.11 | \$\times 0.06 \times 10 \times 72, | 13,2078 03,04 |

EU-N = northern EU residue region, EU-S = southern @ residu@egion

Northern European residue region

| Report: | KILA 6.3.15701, 2012 (2012) |
|--------------|---|
| Title: | Dermination of the residues of YI 0240 in/on apple of ter splaying of BYI 02960 |
| | 200 on the field in Gramany, Franco north, the Netherlands and Belgium |
| Report No. & | 10-2 V1, dated July 5, 2012 S |
| Document No. | Mg 34587 01-1 0 4 6 5 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 6 |
| | |

| Report: | KII 6.3.18 02, 2012 2012 |
|---------------|--|
| Title: | Determination of the residues of R 11 02960 in/gryapple after spray application of |
| | SYI 029 0 SL 200 in the field by Germany, northern France and the United Kingdom |
| Report No. & | 11-20-7, date: September 14, 2012 |
| Document No.: | M (58329-91-1 C |

| Guidelines to polies to both studies | Frective 91/414 EEC, residues in or on treated products, food and feed |
|--------------------------------------|--|
| | EC Galance Working document 7029/VI/95 rev. 5 |
| | US A OSPP Guideline No. 860.1500.SUPP |
| GLP Yapplies to both studien. | yes (certified laboratory); Deviations: none |

Materials and Methods

Ten field residue trices were conducted in the northern European residue region, as follows:

In 2010 trials (Germany [3], northern France, the Netherlands, and Belgium) were conducted to support the use of BYI 02960 SL 200 in apple (& 2012, KIIA 6.3.1.3/01). Two applications were made at intervals of 14 days (13 days in one trial) at a nominal rate of 0.205-

0.375 L/(ha×m), corresponding to 50-75 g/(ha×m) BYI 02960 a.s.; the water rate was 500 L/(ha×m), reflecting local practice in the trial regions. (In two trials each, the application rate was 50, 60, or 75 g/[ha×m CH]. The intended GAP now specifies 60 g/[ha×m CH]; all trials from the 2010 program can be considered representative, as the difference in rates is 25% or less, and thus within the E acceptance criteria for use pattern comparability.) All treatments were made at the scheduled cates

Four further trials were carried out in 2011, in Germany [2], northern France and the Uniod Kingdom, to complete the data package (2012, IOIA 6.3.1.3/02. The basic application parameters were as in 2010; application rates were 0.300 L/(ha×m) in all trials, corresponding to 60 g/(ha×m) BYI 02960 a.s. Water rates ranged from 250-450 L/(15×m). The application interranged from 13-15 days. Again, all treatments we made at the scheduled rate

Samples of apple fruit were taken immediately price and subsequent e first application, and at several intervals thereafter (up to 21 days after troomen on 201Q and up to 2011). The envisaged PHI was 14 days.

pective LOOs for the 3 analytes were The samples were analyzed for the parent compound and method 01304 (for method details cf. KIIA 43/03). The 0.01, 0.02, and 0.01 mg/kg (all of parent equivalents)

Validation and concurrent recoveries of FYI 02960 and its metabolites DFA and DFEAF were obtained from sacriples of apple fruit. This sample materials representative for all sample materials collected in those trial. ValQuation Pecoveries for apple Quit were conducted within study 10-2172 (cf. KIIA 6@.1.3/03), additional recoveries were conducted concurrently to the analysis of all samples (concurrent recoveries) Concurrent recoveries for reducing 90-2177 and 10-2172, as well as concurrent one in parallel. Thus the same recoveries are reported for the reported

we've spiked at levels of 0.01 mg/kg and 0.10 mg/kg, as The recovery Samples for potent and DFE 02000 econvaler(s). Mean recoveries were all within acceptable well as 1.0 mg/kg (expressed in 9 ranges (\sim -101%, RSD) of the larger validations sets [n > 2] 4.4-13.0%, n=1-9).

Fortification levels for DoA were or 0.02 mg/gg, 0.05 mg/kg, and 0.20 mg/kg, as well as 0.50 mg/kg, and 1.0 mg/kg (expressed in FYI 02000 equivalents) for trials conducted in 2010 and 0.02 mg/kg, 0.20 mg/kg and 1.0 mg/kg expressed in BYI 02960 equivalents) for trials conducted in 2011. Mean within acceptable ranges (85-94%, RSDs of the larger validations sets [n > 2]

covery data are shown in Table 6.3.1.3-4. All trial data are summarised below in table 6.3.1.3 & b and in greater detail in the Tier 1 summary forms. (Residues of parent BYI 02960 as well as its metabolites DFA and DFEAF are expressed in BYI 02960 equivalents. From these

individual values, the "total residue of BYI 02960" was calculated as the sum of these three analytes, expressed in parent equivalents.)

On day 0, immediately following the 2nd and final treatment, residue levels in apple fruit were between 0.13 and 0.57 mg/kg (median 0.18 mg/kg). By day 14 — the envisage PHI — the levels were 0.09-0.35 mg/kg, with a median value of 0.12 mg/kg.

The analytical results of the 2010 program revealed that tool residue levels had reached a "plateau level" by the nominal PHI (14 days). In those trials, the peak residue levels were seen on day 14 (5 trials), or day 21, the final sampling interval (1 trial). However, to some crops residue levels were taken to orisure that highest residue levels were captured. Additional samplings were conducted 28-29 and 35-30 days ofter treatment in the 2011 program. In 2011 trials the highest residue levels were seen on day 15 (1 trial), day 21 (1 trial), day 28 (1 trial), or day 36 (4 trial).

Peak residue levels at any relevant sampling interval 214 days pos Papplication over the compete set of trials ranged from 0.09-0.37 mg/sp (meg.) n 0.15 mg/sp.

Evaluation of representativit

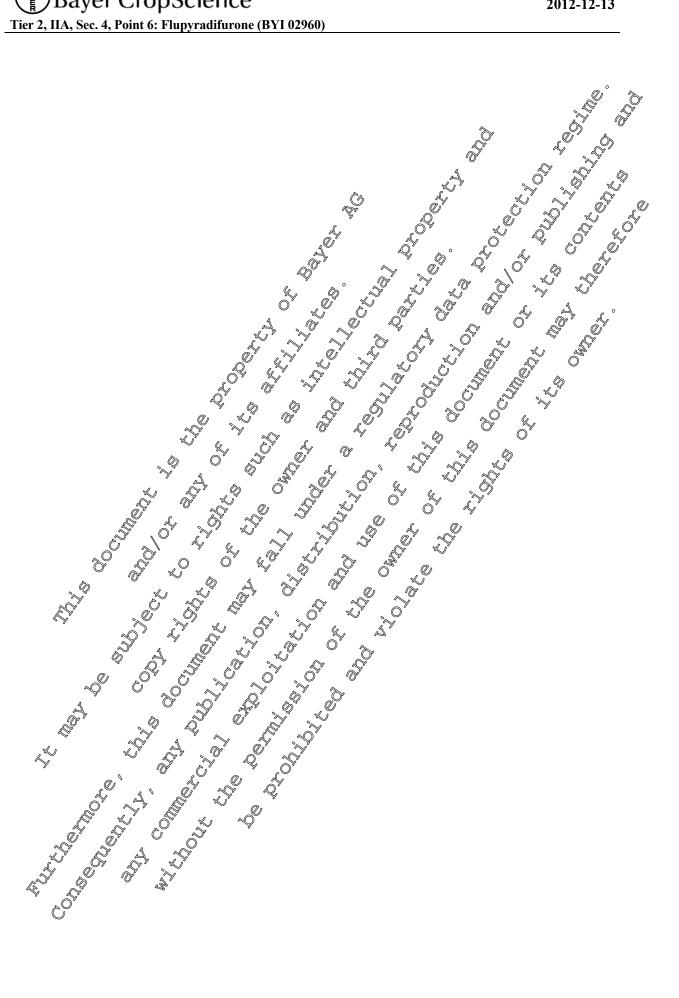
As highest residue levels were seed on the final campling interval of two trials (102/171-05, day 21; and 11-2077-03, day 28), the entire set of trials was development of the control of

In the 2010 package in trial 10-20 1-03 and -06 residues showed "normal" decline behaviour. The PHI of 14 days is clearly within the range of seclining residues. That 10-2171-01, -02, -04, and -05 essentially showed "normal ochavior", with residues remaining fairly constant from the PHI to the final sampling date, often even prior to the PHI day 500 day 21). Residues in trial 10-2171-05 showed the highest variability over time. The increase in Sidues from 0.15 mg/kg on day 14 to 0.17 mg/kg to day 21 may be caused by splining and, additionally, typical biological and analytical variability. Thus, taken in the context divall of the trial, this trial can also be seen as yielding representative results.

In 2011, "normal" decline behavour organization behaviour" was evident seen in the samples taken from day 14 onwards. Total 11 2077 of, which showed peak residues on day 36, showed a very minor increase in residues over time, from 0.11 ng/kg on day 14 to 0.13 mg/kg on day 36. The same trend's true for trials 11 2077-03 and 11 2077 of 4, where peak residues were found on days 28 and 21, respectively, with very minor acreases over time, from 0.35 mg/kg on day 14 to 0.37 mg/kg on day 28 and from 0.10 mg/kg on day 14 to 0.15 mg/kg on day 21, respectively.

These 'locrease' are very small, with the difference of only 0.01 mg/kg or 0.02 mg/kg; they are also within the some of ariability caused by sampling or biological or analytical variability. Thus, taken in the context of all of the trials, these trials can be seen as yielding representative results.

Thus the trials summarized here are considered to be valid and representative of the use described.





III. Conclusions (apple, northern Europe)

In order to support the use in the EU of BYI 02960 in apple, 10 valid trials were conducted in the northern European residue region in the years 2010, 2011 BYI 02060 formulation at an active substance rate of 50-75 g/(ha×m) per treatment, supporting a GAP of 60 g/(ha×m). The application intervals were 13-15 days. All applications were at the region and all trials were conducted according to GLP.

Samples were taken immediately after the 2nd application and at several intervals thereafter, in order the envisaged PHI of 14 days. They were analyzed for the relevant residue's of WI prising the parent compound and its metabolites OFA and DFEAF. The residues of all three analysis were summed to yield a calculated "total residue of B 1 02960" above demonstrate that:

- total residues of BYI 02960 decline Come that in apple fuit be ween the fing application odd the nominal PHI, from levels of 0.13 0.57 nf kg of day 0 fter the final on day 14. The respective median values were 0.18 mg/kg and 0
- analytical results revealed that total resigne levels generally had reached the platear of residue level at the nominal PHI. In the few ases in whice peak residues were ceached later than at the nominal PHI, the residue levels were nevertheless whilar of those at the PHI.
- peak residue leves at any relevant sampling interver ≥14 days post-application) ranged from 0.09 -0.37 mg/kg (predian 0.13 ng/kg).

 the trials reported here are considered to yield representative results suitable for MRL evaluation, since residue levels 12 days - are considered to yield representative residus suitable for MRL evaluations and may be explained by normal variability caused by sampling or biological and/or deal aspead. since revidue levels had at least reached a platean at the envisaged PHI of 14 days. Deviations are



Table 6.3.1.3-3a: Application scenario in residue trials conducted in/on **apple** after spraying with BYI 02960 SL 200 in the field *(northern EU residue region)*

| Study No. | | | | Application | | | _@; | 2 |
|--|--|----------|--|--|---------------------------------------|--|----------------|----------------|
| (Trial No.) | | | | | I | | | Ş |
| Country | _ | | | | | | |)° |
| Location | Crop | FL | | kg/ha | kg/QY | GS & | © PHI | |
| | Variety | | No. | (a.s.) | (a.S.) | | PHI (days) | |
| Region | | | | | 4 | | | Q |
| Year | | | | l Pa d | Y' | ** | | , |
| 10-2171 | apple | 200 SL | 2 | 0.0 | 0.0100 | \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | | A (|
| (10-2171-01) | Pinova | | | (0.050 kg/[ha×m40] | | | | Ö [®] |
| Germany | | | 4 | | |) | | 1 |
| | | | | | | | | |
| DILAI | | | | | - W | | | |
| EU-N 2010 | | | | | W 2 | | & ' | |
| 10-2171 | apple | 200 SI | 2 % | 0 150 | 0 012 | 5 /1 | 14.6 | |
| (10-2171-02) | Gala | 200 50 | | (%\050 kg/[ha×m]) | 0.012 | | | |
| Germany | | | | | | | S. | |
| Community | | 200 SI | | kg/ha (a.s.) 0.0\$5 (0.050 kg/[ha×m]) 0.15 (0.005 kg/[ha×m]) 0.15 (0.075 kg/[ha×m]) | \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | | 144 | |
| | | 6° & | | | | | | |
| EU-N | Q, | 100 | . " | | | \$.V | | |
| 2010 | | | | | | | | |
| 10-2171 | apple Jona old | \$ 00 SL | 2 0 | 0.15 (0.075 kg/[ha×m]) | 0.010 | ₩ | 14 | |
| (10-2171-03) | Jona old | | | (0.075 kg/[ma×m]) | | | | |
| Germany | | | <i>\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\</i> | | | | | |
| | A. | | | | J S | * | | |
| | | | | | | | | |
| EU-N | | | \ \text{5}' | | \$ | | | |
| EU-N 2010 10-2171 (10-2171-04) northern France | | 200 SI | 4 | | <i>Q</i> ₁ | | | |
| 10-2171 | Salavy Galavy | 200 51 | | (0.1235) | 0.0100 | 79 | 14 | |
| (10-21/1-04) O | | | | (0.050 kg/[kg*m]) ** (0.050 kg/[kg*m]) ** (0.050 kg/[kg*m]) ** | | | | |
| Hormern France |)' ~ ~ ~ ~ ~ | .4 | | | | | | |
| | | | O' | | | | | |
| EU-N | . F . F | | . 0 | | | | | |
| 2010 | | . 0 | | L S | | | | |
| 10-2171 | apple distance of the control of the | 200 SL | | | 0.0120 | 85 | 14 | |
| (10-2171-05) | Star S | 200 SL | | (0.000 kg/[ha×m]) | | | | |
| Netherlands | | / | | | | | | |
| | | | | Ö | | | | |
| | | | P K | | | | | |
| EU-N | | | | | | | | |
| 2010 | y a a | Ů, | | 0.1.0 | 0.01-7 | 0 | | |
| 10-2171 | artilé > | 200 SL | 2 | 0.169 | 0.0150 | 85 | 14 | |
| (10-2171-06) | IMSTAT U | w L | , | (0.075 kg/[ha×m]) | | | | |
| Belgium | 1 & Z | | | | | | | |
| | | | | | | | | |
| EU-N | | | | | | | | |
| 2010 | agne de la company de la compa | | | | | | | |
| EL - Chamber | | CC | tht | ro (DDCII andr) at last to | notes and | | | |
| FL = formulation | , , , , , , , , , , , , , , , , , , , | GS = gro | wtn stag | ge (BBCH-code) at last tre | eatment | | | |

= northern European residue region



Table 6.3.1.3-3a (cont'd.): Application scenario in residue trials conducted in/on apple after spraying with BYI 02960 SL 200 in field (northern EU residue region)

| | Т | 1 | 1 | | | | 0 | 1 🙈 |
|---|-----------------------------|---------|------------|---|------------|----------|-----------------|----------------|
| Study No. | | | | Application | Ī | | | |
| (Trial No.) | | | | | | | | |
| Country | Crop | | | | 8 | | | |
| Location | Variety | FL | No | kg/ha | kg/kQ | GS 4 | | |
| | variety | | NO. | (a.s.) | (a.s.) | | (uays) | |
| Region | | | | | A | | | Ĉ _Q |
| Year | | | | ≿a | | | | |
| 11-2077 | apple | 200 SL | 2 | 0.1 Q | 0.0240 | 679 | | Q) |
| (11-2077-01) | Jonagold | | | $(0.060 \text{ kg/[ha}\times\text{m}))$ | | , O Z | | Ô |
| Germany | | | | | | ~ ~ | VO _A | ¥ |
| | | | 4 | , Qi | s & | 4 | | ĺ |
| | | | Qn' | ~ . Õ | 4 Q | \O' \ | Q ^y | |
| EU-N | | | g, ¥ | | , O | | | |
| 2011 | | | Y (| | | , , | 4 | |
| 11-2077 | apple | 200 SL | 2 | 0.16 | 0.0133 | Ø1 a | 14.C | |
| (11-2077-02) | Gala early | | ~ | (0.000 kg/[ha×m]) | | | , W | |
| northern France | variety | | ~/ | | | | | |
| | | W & | y 4 | | y ő | | Õ | |
| | .(0 | 54 K | . Q | | Y S | Q" a | 3 | |
| EU-N | Q, | ~ | ~ | | | . Š | , | |
| | ~ | Ò | Ŵ | | ~O / | | | |
| 11-2077 | apple Delbarestiva | \$00 SL | 0° ° | 0.150 | 0.02400 | <u> </u> | 1/ | |
| (11-2077-03) | Delbarestiva | → 00 SL | | (0.060 kg/Jha×ml) | 0.0210 | ◎' | 14 | |
| Germany | le autumn | , S | <i>6</i> 7 | | | Ò | | |
| Germany | le autumn | | Ţ. | | | Ų. | | |
| | 4 | | | | | ľ | | |
| FILM | | | | | | | | |
| 2011 | | | | | ~ | | | |
| EU-N 2011 11-2077 (11-2077-04) United Kingdon | Pple Jonathan Mid@ct Hatest | 200 SL | × 2 % | | 0020 | 77 | 14 | |
| (11 2077 04) | Sonathar (| 200 31 | | (0.060 kg/[kaxml) × | J 2020 | / / | 14 | |
| (11-20//-04) (11-20//-04) | Mid@ct C | | | (O.OOO RE [TO MI]) | | | | |
| Officed Kingdown | Harvest 🦟 | 4 | | | | | | |
| \$ A | | |) " | | | | | |
| EILN & | | | Ş | | | | | |
| EU-N (C) | Mid@ct C Harvest | | | | | | | |
| 2011 | | L , Oʻ | | | | | | |

FL = formulation
EU-N = northern European & Idue Scion



Table 6.3.1.3-3b: Results of residue trials conducted in/on apple after spraying with BYI 02960 SL 200 in the field (northern EU residue region)

| Study No. | | | Ro | esidues (mg/kg) exp | pressed as BYI 029 | 60 |
|-------------------------------|------------------|--------------|---|---|---|---|
| (Trial No.) Country GLP | Portion analyzed | DALT (days) | BYI 02960 | DFA | BYI 02900- DFE | total revolue of BYI 00960 cas |
| 10-2171 | fruit | 0* | 0.02 | <0.02 | <01 | 0,02 |
| (10-2171-01) | IIdit | 0 | 0.14 0.05 | <0.02 | 0.01 | 0.17 |
| Germany | | 5 10 | 0.05 | <0.02 | Q <0.01 | \$.08 |
| GLP: yes | | 14 21 | 0.07 0.07 | 0.02 | 0 · <0.01 | |
| 10-2171 | fruit | 0* | 0.07 | © <0.02 × | ©<0.01Q | Ø 10 Ø |
| (10-2171-02) Germany | | 0 5 | 0.14 0.12 | <0.02 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | | \$\int_{0.15}^{0.17} \times 0.15 |
| | | 10 | 0.14 0" | 0.05 G | 1 20 .01 | 0.17 |
| GLP: yes | | 14 21 | 0.14 | 003 | <0.01 | 9.15 Q |
| 10-2171 | fruit | 0* | | Ø-0.02~ | √ < <u>0</u> 001 € | |
| (10-2171-03) Germany | | 0 5 | 0.15 | | 0.01 | 0.18 |
| | | 10 | 0.08 | <0.02 | S < 0.00 | 3 .11 |
| GLP: yes | | 14 21 | ♥ 0.657 © ♥ 5.405 © | \$\int_{0.02} \times \\ \square < 0.02 \times \\ \square \qquad \qq | O .01 O | ✓ 0.10✓ 0.08 |
| 10-2171 | fruit | GA, | 0.02 | <0.02 | \$ 0.01 | 0.05 |
| (10-2171-04) northern | | 0 | 0.02 | ₹ ₹ 0.02 | <0.00 | 0.13 0.10 |
| France | | ×10 \(\(\) | 0.06 | <0.02 | 20.01 | 0.09 |
| GLP: yes | Q L | 14 \$ 210 | ©0.06 © | <0.00 <0.02 <0.02 | (\$\leq 0.01 \rightarrow \leq 0.04 \rightarro | 0.09 0.08 |
| 10-2171 | fruit | ×0* » | | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ | < 60.000 | 0.08 |
| (10-2171-05) | | 0.0 | 0.20 | ~ <0.03° | № .01 | 0.23 |
| Netherlands | | 1,0 | 0.12 | 0.02 | 2 0.01 2 0.01 2 0.01 | 0.15 0.20 |
| GLP: yes | | 14 | 0.12 | 0.02 | <0.01 | 0.15 |
| | | <u>21</u> « | j' 51 4 O' | 0.030 | <0.01 | 0.17 |
| 10-2171 (10-2171-06) | fruit | | ≈0.03 √. 0.13 × | 0° <602 0 <0.02 ° | <0.01 <0.01 | 0.06 0.16 |
| Belgium | \$ | ₹ 5 | | 0.02 | < 0.01 | 0.17 |
| GI D: Wes | | 11 | | <0.0 | <0.01 <0.01 | 0.17 0.12 |
| oll . yes | | 20 | 0.050 | O < O < O < O < O < O < O < O < O < O < | <0.01 | 0.12 |
| DALT = days, af | ter last treatn | nem ~ | 0.11 0.42 0.03 0.11 0.14 0.09 0.050 | | | |
| r prior to lastive | eatment | | | | Const | · 1 |
| <i>J</i> , | | 4. | | , | Cont | inued on next pag |
| 4 | * | | | | | |
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Table 6.3.1.3-3b (cont'd): Results of residue trials conducted in/on **apple** after spraying with BYI 02960 SL 200 in the field (northern EU residue region)

| Ctr. d. No | <u> </u> | | n. | | DVI 020 | |
|-----------------------|------------------|-------------|-------------------------|--|---|--|
| Study No. (Trial No.) | | | R | esidues (mg/kg) exp | oressed as BYI 029 | |
| Country | Portion analyzed | DALT (days) | BYI 02960 | DFA | BYI 029 | total residue of BYI (\$\frac{1}{2}\)60 cm |
| GLP: | | | | | | |
| 11-2077 | fruit | 0 | 0.16 | 0.044 | <0.01 | 0.20 |
| (11-2077-01) | | 15 22 | 0.043 0.043 | 0@55 \$\sqrt{63} | \$\int 0.01 \\ \tag{\chi} 0.01 \\ | |
| Germany | | 29 | 0.043 | 0,62 | Q < 0.01 | \$\int_{12}^{12} \times |
| GLP: yes | | 36 | 0.051 | × 0.069 | O'<001 | 0.14 0.14 0.14 |
| 11-2077 | fruit | 0 | 0.11 | <0.02 <0.02 <0.02 | ©<0.01 ©<0.01 | 0.14 |
| (11-2077-02) | | 14 21 | 0.064 0.063 | ○ <0.02 <0.02 ○ .02 ○ .03 ○ .04 ○ .05 ○ . | <0.01 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 × <0.00 | % lo 00 % |
| France | | 28 | 0.063 0.062 0.057 | 0.020 | S <0.401 € | 0.092 |
| GLP: yes | | 35 | 0.057 | 0.02 0.030 0.052 | № .01 ° | 0.489 |
| 11-2077 | fruit | 0 | 0.54 | 2 2 N 02 A | | |
| (11-2077-03) | 11 0110 | 14 | | 0.032 | | ₹ 0.35 € |
| Germany | | 21 28 | 25 | \$\int 0.02\gamma^{\alpha} \tag{5} | 20.01 3 | 0.28 |
| CI D. | | 35 | 0 M 225 4 0.240 | 0.037 0.037 0.045 0.045 0.045 0.021 0.027 | 0.01 0.01 0.01 0.01 0.01 0.01 | % (F.30 |
| GLP: yes | C : | 0 | Q" 007 5 | 20020 | | 0.20 |
| (11-2077-04) | fruit | 14. | | \$\frac{1}{6}\cdot \cdot | <0.01 | 0.20 0.14 0.15 |
| United | | 21 | 0.12 | 0.021 | . 2<0.01 | 0.15 |
| Kingdom | | 28 | | 0°.027 | 0.01 0<0.01 0<0.01 | 0.14 0.099 |
| CI D | | ***** A | 00307 | 0.020 | | 0.099 |
| GLP: yes | | | | | \$ < 0.0 \ | |
| | | | | | | |
| - | | | | | | |
| | | | | | | |



Table 6.3.1.3-4: Recovery data for BYI 02960 in apple

| Study No. | | | | | Fortifi- | | Reco | very (% | o) | a,° |
|--------------------------|----------------|----------|---|----------------|------------------|---|--|----------------|------------|---------|
| Trial No. | Crop | Portion | a.s./ | n | cation | | | | | |
| GLP Year | Стор | analysed | metabolite | | level (mg/kg) | Individual recoveries | A | Max | Mean | RSD |
| 10-2072/ 10-2171 | apple | fruit | BYI 02960 | 9 | 0.01 | 89; 90; 94; 94; 96; 99; 99; \$100; 107 | 89° | 107 | | |
| (10-2171-01), to | | | | 5 | 0.10 | 788; 90; 94; 96, 99 | 88 | 990 | 930 | 4.9 |
| (10-2171-06) GLP: yes | | | | 6 | 10 | 76; 88; 96, 92; 94; 101 | 。76 | Ф01 | \$90 \$ | 69.2 Q |
| 2010 | | | DFA | 20 | Overall | | 76 287 | 101 | * 94° 92 | 750 |
| | | | DFA | ○ [®] | 20 05¢ | 6; 100 2; | ************************************** | \$00 \$00 | \ | 500 |
| | | | | | 0.03 | 92 | 792 V | 93 | 890 | |
| | | | | ∀ 4 6 | 1.0 | (%); 91; %); 96 (73; \$2, 83; %) | 90 78 | 96 93 | 7 93 85 | 1 - 7 G |
| | | Ş | | Q 0 | ovall | 91:23 | O ₇₃ | 200 j | %√ %√90 | 6.6 |
| | | Ţ, | BYI 02960 EAF | 9 | 0.01 | 75; 81(85; 86; 87; 88; 89; 61; 95 | 750 | 95 Q | 86 | 6.7 |
| | al a | | | 5 | | ©; 92 Q4; 96; 97 O | 69. 69. | \$\frac{1}{97} | 90 | 13.0 |
| | | | | 6 | 1.05 | 70 3; 90; 94; 9100 89; 103 89; 93; 94 93 95; 97 89; 92; 99 87 95; 98; 109 88; 93; 96 100 | 70° | 100 | 89 | 12.3 |
| * | 0 | | | 20 | overall | | 69 | 100 | 88 | 9.9 |
| 11-2078/ | appl | frein | BYI 02960 | ~3 | 0.010 | 89; 🕅; 103 | 89 | 103 | 96 | 7.3 |
| (11-20// | | | | Oğ | 0.10 | 89, 93; 99 | 80 | 97 | 90 | 9.9 |
| (11-207 /2-9 1), | % | | | 1, | OI.0 * | 93 | 93 | 93 | | |
| (11-2077-04) | 3 | * | \$ \\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | . 0 | overall | | 80 | 103 | 93 | 7.8 |
| GLP: yes | Q | | DFA | $\checkmark 3$ | 0.020 | 95; 97 | 90 | 97 | 94 | 3.8 |
| 2011 | | | | 3, | 00.20 | 89; 92; 99 | 89 | 99 | 93 | 5.5 |
| 4 | | \(\int\) | p ^y 4 ^Q . | | 1.00 | 87 | 87 | 87 | | |
| | | | <i>V V</i> | ≯ 7 | overall | | 87 | 99 | 93 | 4.8 |
| , * | 2 | | 10 TEAE | 3, | 0.010 | 95; 98; 109 | 95 | 109 | 101 | 7.3 |
| | | | | O | 0.10 | 88; 93; 96 | 88 | 96 | 92 | 4.4 |
| | | | | √ 1 - | 1.0 | 100 | 100 | 100 | 0.7 | 6.5 |
| 4 | 1 // /= | | l ♥♥ | 7 | overall | | 88 | 109 | 97 | 6.7 |

Southern European residue region

| Report: | KIIA 6.3.1.3/03, 2012 | | |
|----------------------------|---|-------------------------|--------|
| Title: | Determination of the residues of BYI 02960 in/on apple SL 200 in the field in France (south), Italy and Spain | e after spraying of BYI | 029607 |
| Report No. & Document No.: | 10-2172, dated July 5, 2012 M-434603-01-1 | | |

| Report: | KIIA 6.3.1.3/04, ; | • | 2 012 | |
|----------------------------|--|---|--------------|--|
| Title: | Determination of the residues of BYI BYI°02960 SL 200 in the field in so | | | |
| Report No. & Document No.: | 11-2078, dated October 16, 2012 M-439845-01-1 | | | |

| Guidelines (applies to both studies): | Directive 9 414/EVC, re | sQues into on treated pt | ducts, food and feed |
|---------------------------------------|-----------------------------|--------------------------|----------------------|
| | E Guidance working do | cument //029/14/95 r | |
| | O'S EPA OCSAP Guid in | ne Nov 860.1500.SUSP | |
| GLP (applies to both studies): | yes (certified laboratory); | Deviation in nonco | |

I. Materia and Methods

Ten field residue trial were sonducted in southern Turope, as follows:

In 2010, 6 trials (Southern France, Italy [2], and Spain [2]) were conducted support the use of BYI 02960 St. 200 in Spple (& Land & L

(In two trials each the application rate was 50 %), or \$\frac{1}{2} \text{g/[ha\times CH]}\$. The worst-case intended GAP – for the "home and gargen" use—now specifies 67.5 g/[ha\times CH], with a GAP of 60 g/[ha\times m CH] for the agricultural use.

Within the scope of the some of garden use the trial from the 2010 program conducted at 60 and 75 g/[ha×m CH] can be considered representative as the difference in rates is 25% or less, and thus within the EU's acceptance criteria for the pattern comparability. As for the trials at 50 g/[ha×m CH], although they differ from the envisaged GAT by 26%, they were nevertheless evaluated below for their validity.

All treatments were made at the scheduled rates, except in one trial (Spanish trial 10-2172-05, 1st appl. undergosed by 10% 2nd appl. by 15%), but this deviation was well within the EU's standard acceptance or iteria.

Four further trials were carried out in 2011, in France, Spain, Italy, and Portugal, to complete the data package (& 2012, KIIA 6.3.1.3/04). In 2011, only one application was made,

at a nominal rate of 0.34 L/(ha×m), corresponding to 68 g/(ha×m) BYI 02960 a.s; water rates ranged from 400-450 L/(ha×m). All treatments were made at the scheduled rates.

In 2010, samples of apple fruit were taken immediately prior and subsequent to the final application. and at several intervals thereafter (up to 21 days [20 days in one trial]); in 20,0, samples were taken immediately subsequent to the application, and at several intervals thereafted up to 35 days in one trial]). The envisaged PHI was 14 days.

The samples were analyzed for the parent compound and its metabolites DFA and DE method 01304 (for method details, cf. KIIA 4.3/03). The respective LOQs for the 3 snalyto were 0.01 mg/kg, 0.02 mg/kg, and 0.01 mg/kg (all in parent equivalents).

During the conduct of the complete set of apole studies recoveries of BYI 02960 and its met Dollite DFA and DEFAF were obtained from samples of apple fruit. This sample material is representative of all sample materials collected in these trials Validation recoveries for apple Quit were conducted within Qudy (\$\tilde{Q}\$)-2172 (cf. 184 6.2.1.3/03), additional recoveries were conducted concurrently to the analysis of all samples (concurrent recoveries). Concurrent recoveries for spaties 19-2171 and 10-2172 as well as concurrent recoveries for studies 11-2077 and 11-2074 were done is paralled They the same recoveries are reported for the respective studies.

parent and DFEAT were piked ablevel of 0.05 mg/kg, 0.10 mg/kg and The recovery samples for 1.0 mg/kg (expressed in BYO)2960 quivalents) Mean occoveres were all within acceptable ranges (86-101%, SSDs of the larger

A were or 0.02 Gg/kg, 0.05 mg/kg, and, 0.20 mg/kg, as well as 0.50 mg/kg and 1.0 mg/kg (expressed in BY) 2960 equivalents). Mean recoveries were all within acceptable ranges (85-94%, RSDsor the Figer volidations set $(n > 2\sqrt{2}.9-8.6\%, n=1-6)$.

Details of recovery data are shown in table 6.36.3-6. All trial data are summarised below in table 6.3.1.3-5 & b and in greater ortail in the Tie 1 summary forms. (Residues of parent BYI 02960 as well as its metabolits DFA and DEEAF of expressed in BYI 02960 equivalents. From these individual values, the "top reside of BVI 02060" was calculated as the sum of these three analytes, expressed in pa@nt equivalent.

Relevant residues of BY 02960 were determined in apple fruit samples taken 14 days subsequent to first application (immedia by prior to the 2nd treatment) in 2010 and 14 days – and at various other interval. — after the shigle application in 2011.

In the 200 trials, residue levels declined somewhat between the day of the final application, on which they ranged from 0.11-0.24 mg/kg, and the nominal PHI (day 14), on which they were between 0.05-0.11 mg/kg; the median values were 0.16 and 0.09 mg/kg, respectively. However, these values reflect

two applications. To evaluate the intended one-application GAP, residues in samples taken immediately before the second treatment in 2010 (corresponding to 14 days after the first treatment) were found ranging from 0.04-0.12 (median 0.06 mg/kg); these were quite similar to those from samples taken 14 days after the single treatment in 2011 (0.051-0.11 mg/kg, median 0.09 mg/kg

In the 2011 trials, on day 0 immediately following the application, residue levers in apple fruit between 0.19 and 0.25 mg/kg (median 0.19 mg/kg). By day 10 (8-10 days), the levels we 0.06 mg/kg-0.12 mg/kg, with a median value of 0.09 mg/kg. On day 144- the envisaged PH 2 levels were 0.051-0.11 mg/kg, again with a median value of 0.09 mg/Q. constant residue level by 10 days after the application, they appear to have reached a "planau" to Median values of 0.08, 0.07, and 0.08 mg/kg at the day, 28-day, and 55 respectively, further support that the residues had reached a placeau

As residue levels have reached a plateau by day 14 residue value measured in day-16 samples "normally" in the 2011 trials can be evaluated together with those taken between applications in the 2010 study, i.e. 14 days subsequent to trials from the entire set of trials in samples taken 14 days after one application ranged from 0.0 0.07 mg/kg.

In some of the trials, the highest relevant rasasured residue was seen at later sampling intervals that at the nominal PHI, even if the level remained very similar. When considering the reak residues at any sampling interval ≥14 days post 1-application over the complete set of trials, levels ranged from 0.04-0.12 mg/kg (median 7 mg/kg)

Evaluation of representativity:

In all trials, residues showed formal decline behaviour overtly there the application, but seemed to reach a plateau level within the following Pays. This behaviou was independent of the number of applications (1 or 2)

were determined on day 2 (the final day of sampling), in 3 of the 6 trials. However, gloser examination regals that the widue weels had reached a "plateau", starting on approx. Will the value themselves reflect a 2-application scheme, they are nevertheless of importance in understanding the seneral behaviour of BYI 02960 in apples.

Trials conducted in 2011 all sowed fateago behaviour around day 14. Only in trial 11-2078-01 was an increase in esides evident, from 0.051 mg/kg at day 14 to 0.058 mg/kg at day 35. Additionally, in trial 11-4078-04, resignes increased from 0.082 mg/kg at day 14 to 0.083 mg/kg at day 21. These minor is reases hay be due to sampling aspects and, additionally, biological and/or analytical variability. Thus, then in the context of all of the trials, these trials can also be seen as yielding representative results.

And, as it is evident that residues had reached a plateau level by approx. day 10 in general, values measured after a single application in 2010 can be evaluated together with those in the 2011 program, as a complete set of trial data.

In 2010, applications in two of the trials were at a rate of 50 g/(ha×m). This is 6% less than the rate of 50 g/(ha×m), and thus is nominally of the FU's critical for the rate of 50 g/(ha×m), and thus is nominally of the FU's critical for the rate of 50 g/(ha×m), and thus is nominally of the FU's critical for the rate of 50 g/(ha×m), and thus is nominally of the FU's critical for the FU's critical for the full for the FU's critical for the FU

III. Conclusions (apple, southern European residue region)

In order to support the use in the EUOf BY 202960 in apple, 10 which trans were conducted its southern Europe in the years 2010-2011. BQ 102960 was applied as are \$L 200 formed ation wice in 2010 trials and once in 2011, at an active substance rate of 50-75 g/(ha/m) progressions were at the required rates except for monor deviation in a sugle trial, which were less than 25% and, therefore, well within the EUs standard acceptance criteria. A writials were conducted accepting to GLP.

Samples were analysed for the rewant is idues of By 0296% comprising the parent compound and its metabolites Do A and DFEAT. The residues of all three malyse were summed to yield a calculated "total residue" BYL 2960 The Osults of the stals proented above demonstrate that:

- in the \$\tilde{\pi}\$10 trials, to or residue leves declined from the day of the final application, on which they ranged from 0.11 \tilde{\pi}\$24 mg/kg, to the remainal HII (day 14), on which they were 0.04-0.12 mg/kg. The respective pedian values were 0.16 and 0.06 og/kg. At sampling intervals 10 and 21 days after the final application, sedian values of 0.10 and 0.09 mg/kg were determined.
- residues in samples taken impediately before the cond treatment in 2010 (corresponding to 14°days after the first treatment) were found at similar levels (0.04-0.12; median 0.06 mg/kg) to those from samples taken 14 days after the single treatment in 2011 (0.05-0.11 mg/kg, median 0.09°mg/kg).
- in 2011, to all residues of BYI 02960 declined somewhat in apple fruit sampled after the single application and at the poming PHI, from levels of 0.19-0.25 mg/kg on day 0 after the final treaspent to 0.051 and 11 mg/kg on day 14. The respective median values were 0.19 mg/kg and 0.09 mg/kg. At absence that sampling intervals (days 21, 28, and 35), median values of 0.08, 0.07, and 0.09 mg/kg were setermined.
- analytical results revealed that total residue levels often had reached a plateau by the nominal PHI.

- as the residue levels reached a plateau after approx. 10 days, 2010 residue results from sampling intervals after the first application (but prior to the second one) can also be taken to support a 1application use pattern on apple trees with 14-day PHI.
- peak residue levels at any relevant sampling interval (≥14 days post 1-application) ranged firm 0.04-0.12 mg/kg (median 0.07 mg/kg).

 the trials reported here are considered to yield representative results suitable for MKL evaluations in the data are acceptable and may be explained by permal variability caused by grimphinaspects or biological and/or analytical variability.



Table 6.3.1.3-5a: Application scenario in residue trials conducted in/on **apple** after spraying with BYI 02960 SL 200 in the field *(southern EU residue region)*

| Study No. | | | | Application | | | w · | * |
|--|---------------------|---------------------------------------|----------------|---|------------------|----------|----------------|---------------------------------------|
| (Trial No.) | | | | rippiication | | | | Ţ |
| Country | C | | | | > | | | O |
| Location | Crop | \mathbf{FL} | NIa | kg/ha | kg/40 | GS 4 | PHI (dass) | |
| | Variety | | No. | (a.s.) | (a.s.) | | (days) | |
| Region | | | | | 4 | | | Q |
| Year | | | | r al | N' | "N | | _ |
| 10-2172 | apple | 200 SL | 2 | 0. \$\frac{1}{2}5 | 0.0100 | ©85 ~O | | (((((((((((((((((((|
| (10-2172-01) | Gala | | 4 | (0.050 kg/[ha×x | 5 | | | Ö |
| southern France | | | 40 | | ی ر د |) | | × |
| | | | | | | | | |
| TH C | | | Q)" | | <i>∞</i> | | | |
| EU-S 2010 | | % | | | | | W ^v | |
| 10-2172 | annla | 200 SL | <u> </u> | | γ 0.0120 | <i>A</i> | 145° | |
| (10-2172-02) | apple Canada | 200 SL | ~ ~~~~ | (0. p) (0. kg/[Ma×m4]) | 0.012 | 0,3 | | |
| southern France | Canada | | | | °0, | | | |
| Southern Trance | | | , (| | | | 0 | |
| | _ | | . \$ | | | Q" » | | |
| EU-S | 4 | | | | Š | Š. Ž | , | |
| 2010 | ~~ | , Q | | | 20° (| | | |
| 10-2172 | apple Fuji | \$200 SL | 20 | kg/ha (a.s.) 0.25 (0.050 kg/[ha×m]) 0.15 (0.075 kg/[ha×m]) | 0.015 | | 14 | |
| (10-2172-03) | Fuji 🗸 💪 | | A. | (0.075 kg.(ha×m)) | Ò | O | | |
| Italy | Fuji V | | Ŵ | | | , © | | |
| | ** 4 | | | | | 7 | | |
| - × | | | | | | | | |
| EU-S | | | | | 4 | | | |
| EU-S 2010 10-2172 (10-2172-04) Italy | | 200 SL | ~ | | Q) | | | |
| 10-2172 | apple donathan | 200 SL | 2 ~ | 0.145 | $\bigcirc 0.010$ | 76 | 14 | |
| (10-2172-04) | Jonathan | Y 4.0" | | (0.050 kg/sha×m])** | | | | |
| Italy | | , 7 | | | | | | |
| | | | , " | | | | | |
| EU-S | | | | | | | | |
| 2010 | | | | | | | | |
| EU-S 2010 2010 10-2172 (10-2172-05) | apple Tolder | 200 SL 7 |)) (| 0.14 0 0.050 kg (\$\text{va}\text{xm}]\text{\text{\text{0}}} \text{\text{0}} \t | 0.0103 | 81 | 14 | |
| (10-2172-05) | Colden | 290 SL 0 | | 0.15 (2nd appl.) (0.054 kg/(ha×m), | 0.0103 | 01 | | |
| Spain © Ô | | | | $(0.054 \text{ kg/(ha} \times \text{m}),$ | | | | |
| | | | | lst Appl.), 0.051 kg/(ha×m) | | | | |
| | 0' \$9' | | ~ _ @ | $0.051 \text{ kg/(ha\times m)}$ | | | | |
| EU-S | | | | (2nd Appl.) | | | | |
| 2010 | | , , , , , , , , , , , , , , , , , , , | | | | | | |
| 10-21/2 | ar Ric Calaxia | 20 0 SL ≪ | ⁷ 2 | 0.188 | 0.0150 | 81 | 14 | |
| (10-2172-06) | G alaxia O " | | | (0.075 kg/[ha×m]) | | | | |
| (10-2172-06) Spain | , | | | | | | | |
| | | | | | | | | |
| | | ~ Q~ | | | | | | |
| EU-S 2010 A | | | | | | | | |
| 2010 | , Ç | | | | | | | |

FL = Smulation GS = growth stage (BBCH-code) at last treatment EU = southern European residue region



Table 6.3.1.3-5a (cont'd.): Application scenario in residue trials conducted in/on apple after spraying with BYI 02960 SL 200 in field (southern EU residue region)

| | | | | | | | 0 | |
|---|----------------------------|---------------|--|---|-------------|---------------------|----------|----|
| Study No. | | | | Application | | | | Ô |
| (Trial No.) | | | | | | | | Ş |
| Country | Cwan | | | | > | | | , |
| Location | Crop | \mathbf{FL} | N.T. | kg/ha | kg/f0 | GS 4 | PHI | |
| | Variety | | No. | (a.s.) | (a.s.) | <u> </u> | (days) | |
| Region | | | | | 4 | | | 2 |
| Year | | | | | Ų" | | | |
| 11-2078 | apple | 200 SL | 1 | 0.54 | 0.0170 | Č85 🔊 | | "W |
| (11-2078-01) | Granny | | | (0.068 kg/[ha×xx | | , Ŭ | | ~~ |
| southern France | smith; | | Ó | | | | | 1 |
| | Cultivar | | 4 | Q' _{&} | · 4 | 4 | | |
| | | | 200° | ~ | Q | \O' . | | |
| EU-S | | // | * | | , O | | | |
| 2010 | | | | | | | 4 | |
| 11-2078 | apple | 200 SL | Z. | 0 20 0 | 0.0151 | % 1 <i>a</i> | 144 | |
| (11-2078-02) | Golden | | ~\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | (0,068 kg/[ha×m1) | | | <i>"</i> | |
| Spain | Smoothy; | | y" ; | | | | | |
| | yellow var. | | | | Y Ô | | O | |
| | fresh | | ~ Q | | | | | |
| | fresh consumption | r "O" | *¥ | | 8 | | | |
| EU-S | ~~ | _ (\$\) | | | 20° | | | |
| 2010 | | | ô | | | | | |
| | apple | 200 | A1 | 0-170 | 0.0861 | 78 | 14 | |
| (11-2078-03) | galas varietal | | Ŵ | (0.068 kg/[ha×507) | | , Q | | |
| Italy | apple gales variet procece | | | | | | | |
| * | | 6 | | | ~ . \$ | | | |
| Ç | | j a | | | | | | |
| | | | J' | | 7 | | | |
| 2010 | | | °~ | | | | | |
| EU-S 2010 11-2078 (11-2078-04) Portugal | Pannle | 200 8 | 18 | 0~204 | 0.0170 | 77 | 14 | |
| (11-2078-04) | Fuiz Red | | S S | 6068 koliha×nØi | 0.0170 | / / | | |
| Portugal & | apple Ø | 1 2 |) I | | | | | |
| | | | | | | | | |
| | | | | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ | | | | |
| EU-S | | | | a. A | | | | |
| | Fuir Red apple | |) (| Application kg/ha (a.s.) 0.304 (0.068 kg/[ha×m4]) 0.170 (0.068 kg/[ha×m4]) 0.204 (0.068 kg/[ha×m4]) | | | | |
| EL = formulation | | | . ~ | | l . | | | |

OGS = crowth stee (BBSH-code) at last treatment



Table 6.3.1.3-5b: Results of residue trials conducted in/on apple after spraying with BYI 02960 SL 200 in the field (southern EU residue region)

| Study No. | | | Re | esidues (mg/kg) exp | oressed as BYI 029 | 60 0 2 |
|---|---|--|---|---|--|--|
| (Trial No.) Country GLP | Portion analyzed | DALT (days) | BYI 02960 | DFA | BYI 02960- DFEA | total resoue of BYI 02000 car |
| 10-2172 (10-2172-01) southern France | fruit | 0* 0 5 10 14 | 0.03 0.12 0.06 0.04 0.06 | <0.02 <0.02 <0.02 <0.02 0.02 | <0.01 <0.01 <0.01 0.01 0.001 | 0.06 0.15 0.18 0.89 0.70 0.00 |
| GLP: yes | | 21 | 0.04 | \$\times 0.02 | 0 < 0.01 | 0.085 |
| 10-2172 (10-2172-02) southern France GLP: yes | fruit | 0* 0 5 9 14 21 | 0.01 0.13 0.08 0.07 0.07 0.03 | \$\begin{align*} \leq 0.02 \\ \l | (0.01 (0.01 (0.01 (0.01 (0.01) (0.01) | 0.00 0.16 0.11 0.10 0.10 0.10 |
| 10-2172 (10-2172-03) Italy GLP: yes | fruit | 0* 0 5 10 14 21 | 0.02 050 050 08 00.04 0.04 0.04 0.04 | 0.02 0.02 0.02 0.02 0.02 0.03 | 0.07 0.01 0.01 0.001 | 0.05 0.13 0.10 0.10 0.07 0.07 0.08 |
| 10-2172 (10-2172-04) Italy GLP: yes | fruit | 0* % 5 50 714 \$ 21 \$ | | <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 | <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 | 0.06 0.11 0.10 0.10 0.07 0.10 |
| 10-2172 (10-2172-05) Spain GLP: yes | fruit F | 00 00 00 00 00 00 00 00 00 00 00 00 00 | 0.0% 0.14 0.14 0.14 0.16 0.10 | 7.02 0.02 0.03 0.03 0.03 0.05 | 0 <0.0% <001 <0.01 <0.01 <0.01 <0.01 | 0.12 0.24 0.17 0.18 0.13 0.17 |
| 10-2172 (10-2172 %) Spain GLP: yes | fruit | 0* 0 14 20 | 0.16 0.16 0.10 0.00 0.00 0.00 | <0.02 <0.02 <0.02 >0.03 0.06 0.06 | <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 | <0.04/0.09** 0.19 0.13 0.15 0.15 0.13 |
| DALT = days at * prior to last t ** residues ver Thus, \$9 m | last treatment reatment re <loq in="" t<="" td=""><td>he "treates</td><td>sampte but 0.0 mg</td><td>/kg/i the "control". The sample in furt</td><td>Γhis may be due to a s her evaluation in this</td><td>ample mix-up. chapter,</td></loq> | he "treates | sampte but 0.0 mg | /kg/i the "control". The sample in furt | Γhis may be due to a s her evaluation in this | ample mix-up. chapter, |
| | | | | 0.03 0.00 0.00 0.00 0.00 0.00 0.00 0.00 | Cont | inued on next page |



Table 6.3.1.3-5b (cont'd): Results of residue trials conducted in/on apple after spraying with BYI 02960 SL 200 in the field (southern EU residue region)

| Study No. | <u> </u> | DII | | Residues (mg/kg) ex | nressed as RVI 02 | 960 |
|-----------------------|------------------|---------------------|-------------------------|--|---|---|
| (Trial No.) | Portion | DALT | | | 1 | |
| Country GLP | analyzed | (days) | BYI 02960 | DFA | BYI 02960- DFEAR | total residue of BYI 02000 cal |
| BYI 02960 SI | 200 | | | <u> </u> | ' | |
| 11-2078 | fruit | 0 | 0.16 | < 0.02 | \$ \$\$1 | \$ 0°0.1965 |
| (11-2078-01) | | 10 | 0.031 | <0.02 | 0.01 | 0.001 |
| southern France | | 14 21 | $0.021 \\ 0.020$ | <0.0 | \mathbb{Q}^{2} 0.01 | V 2050 2 2 |
| France | | 28 | 0.020 | <0.02 | <0.01 | 0.050 |
| GLP: yes | | 35 | 0.022 | 30.025 | <0.01 e ^Q | 0.00 |
| 11-2078 | fruit | 0 | 0.16 | 0.023/0.023** | | 0 9/0.045** |
| (11-2078-02) | | 8 14 | 0.079 0.066 | 0.031/0.05** 0.036/0021** | | \$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ |
| Spain | | 21 | 0.066 | 000000000000000000000000000000000000000 | \$\frac{\$<0.0}{\$<\pi_1\$}\$\$ \$\frac{\$<0.01}{\$<\pi_2\$}\$\$ \$\frac{\$<0.01}{\$<\pi_2\$}\$ \$\frac | 0.170.041*** |
| GLP: yes | | 27 | 0.038 | 0.043 | \(\text{\text{\$\pi\}}\) | O' 04095 24 |
| - | | 34 | 0.04 | V.0%/ | | % 11 |
| 11-2078 | fruit | 0 | 0.67 Q058 | 0.02 0.020 0.020 0.025 0.036 0.036 | | ₹ 0.19 |
| (11-2078-03) Italy | | 10 14 | 0058 | \$\int_{\infty}^{\infty} 0.02 \tag{7} | 0.01 | 0.19 0.088 0.088 |
| Tury | | 21 | 0.035 | 0.027 | <0.00 | \$\int\text{0.070} |
| GLP: yes | | 28 | ≈ 0.0 2 5 | 0024 | 7.01 7.001 7.001 7.001 7.001 | 0.060 |
| | 0.1 | 35 | (0 ,0.931 °0 | 30.036 | 0.01 0.01 0.001 0.001 | 0.078 |
| 11-2078 | fruit | 0 📞 | 0.22 | <0.02 | \$\langle \cdot 0.01 \\ \cdot \langle \cdot 0.01 \\ \cdot \langle \cdot 0.01 \\ \cdot | 0.23 |
| Portugal | | , Q | 0 0.00 | © <0.02 > <0.02 | \$\frac{1}{2} < 0.\$\frac{1}{2} \text{\$\infty}{2} | 0.094 |
| 1 0100801 | | 21 | 1 0.053 a | Ø0.02 S | 49.01 | 0.083 |
| GLP: yes | | \vee 28 \otimes | 9.037 | 0.021 | (\$\leq 0.01 \rightarrow \rightarrow \leq 0.01 \rightarrow \rightar | 0.069 |
| | | 33 @ | 0.03% | | 0 <0.045 | 0.078 |
| DALT = days a | fter last reat | ment | | , | | |
| ** residues in c | ontol C | »\ _ ^ | Y & , , , , , , , , , , | | | |
| | | | . 0 % | | | |
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| Ky" | <u>~</u> | | | | | |
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| | | | | 0.02 0.025 0.024 0.02 0.02 0.02 0.02 0.02 0.02 0.02 0.03 0.03 0.04 0.05 | | |
| | | | | | | |



Table 6.3.1.3-6: Recovery data for BYI 02960 in apple

| Study No. Trial No. | | D =4* = | 1 | | Fortifi- | I | Recove | ery (%) | | Q)° |
|---|-------|---------------------------------------|---------------------|--------------------|----------------------------|---|-------------------------|--------------------|----------------------------------|--------------|
| GLP Year | Crop | Portion analysed | a.s./ metabolite | n | cation level (mg/kg) | Individual recoveries | Min | Max | Mean | RSD |
| 10-2171/ | apple | fruit | BYI 02960 | 9 | 0.01 | 89; 90; 94; 94; | | 107 | 98 | . 5/8 |
| 10-2172 | 11 | | | | | 96; 99; 99; 100; 107 | . | | | |
| (10-2172-01), | | | | 5 | 0.10 (| \$8; 90; 94; 96 \$ | 88 | 94 | 93 | 48 |
| to (10-2172-06) | | | | | \ | 799 | | 9% | \$P" | 2 |
| GLP: yes | | | | 6 | 1.0 | 76; 88; 90, 92; 94; 101, 6 | 76 | | \$ ⁹⁰ | > 9.2 & |
| 2010 | | | | 20 | overall | 94, 1010 | ₹Ç. | 100 | 8 | |
| | | | DFA | <u>6</u> | 0.02 ° | 87; 98; 89; 92; | ©87 | 3 00 | ³ / ₂ 92 , | 5 5.5 |
| | | | a | O ₃ | © 3 05 @ | 96, 100 £ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ | 83 | 92 | 88 | 5-8-° |
| | | | | 1% | 0.20 | 92 | 82 | y92 | | |
| | | | O C | | 0.80 | 90 , 91; 9©, 96 | 90 | 96 | 93 | 2.9 |
| | | | | [*] 6 , | \$7.0 £ | 73; 82083; 885 | S | 200 | 8 5 | 8.6 |
| | | | Q Q | Ž | overell | | © 73 / | \mathcal{G}_{00} | ×90 | 6.6 |
| | | | BY 1892.960- | 9 | © .01 | 75; 81 8; 86; | 75 | 95 | 86 | 6.7 |
| | | * 0' | DEFEAF | Ø. | \ | 87; 8 £ ; 89; 91 | | Ò | | |
| | | | | F | 050 | Q , 92; 94; 96; 3 | 69 | 97 | 90 | 13.0 |
| | d | | | D 4 | | 70; 83; 90; © ; | \$\frac{1}{\sqrt{70}}\$ | 100 | 90 | 12.2 |
| | | | 5 7 | 0, | | 70; 83; 90; © ; 96 2 100 | 7/ | 100 | 89 | 12.3 |
| | | ~ ~ | | 2 0 | overall | 5° 5° 5° | 69 | 100 | 88 | 9.9 |
| 11-2077/ 11-2078 | pple | frui | B© 02960 | 3 | 0.01 | 103:49; 97 | 89 | 103 | 96 | 7.3 |
| (11 2070 | | * | | | 0.10 | 93; 80; 97 | 80 93 | 97 93 | 90 | 9.9 |
| to | ·~ | | | 1 7⋄, | Overall | | 80 | 103 | 93 | 7.8 |
| (11-2078-04) | \$ | | ØFA ≫ | 3 | 0.62 | 97; 95; 90 | 90 | 97 | 94 | 3.8 |
| GLP: yes | | | | \bigvee_{3}^{3} | 0.20 | \$2; 99; 89 87 | 89 | 99 | 93 | 5.5 |
| 2011 ≪(| | | | 100 | 01.0 | 87 | 87 | 87 | | |
| A | | | DVI ON CO | | overell | 00. 05. 100 | 87 | 99 | 93 | 4.8 |
| | 0 | | DFEAF | ∜ <u>3</u> ≈ | 0.010 0.010 | 98; 95; 109 93; 88; 96 | 95 88 | 109 96 | 101 92 | 7.3 4.4 |
| | S | | | | 1.0 | 100 | 100 | 100 | 92 | 4.4 |
| ¥ | 0, | \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | _0 A | \bigcirc_{7}^{v} | overall | | 88 | 109 | 97 | 6.7 |
| 11-2077/ 11-2078 (11-2078-04), to (11-2078-04) GLP: yes 2011 | | | | | | | | | | |



IIA 6.3.1.4 Berries and small fruit - grapes

therefore presented below to support the intended use. Use pattern (GAP) information, including the European "agricultural use" as well as the "home & garden use" to 1 Table 6.3.1.4-1.

Table 6.3.1.4-1: Use patterns (GAPs) for the spray application of BYI (2)60-containing in/on grape in European fields

| Description | F/G | No. of appls. | Application rate per treatment per season volume (g a.s. (a) (g a.s. (ha)) (Laba) PHI (days) (days) (days) |
|------------------|------------------------|---------------|--|
| "home & garden"* | F^{\dagger} | 2 | 100 200 Ona 6 14 5 |
| agricultural** | F^{\dagger} | 1 | 100 100 1000 v na 100 |

[&]quot;home & garden" uses with an SL 50 formulation (available

In order to support the use of EYI 02960, was of GLP trials were conducted in northern and southern European fields in 2010 and 2011 On the borthest and southern European fields in 2010 and 2011 In the northern and southern European regions, BYI 02960 was applied twice as an SL for Aulation (BYL-2960 L 206 containing 200 g/L YI 02960 a.s.), at 14-day intervals. The nvisaged PIN was 14 days reflecting the interval worst-case GAP.

Residue levels of BYI 02960 and its metabolics DE and DFEAL were analyzed individually and The number of trials conducted for each use describe to above (incl. information on geographical region and vegetation period) is summarized below in table 6.3.142-2. summed to yield the calcula od "toto residue of EYI 02 60". The most critical residue levels were

^{**} agricultural use based on an SL 200 formulation



Table 6.3.1.4-2: Overview of European residue trials conducted in grape per geographical "residue region" and vegetation period, including key results

| Use description (cf. table 6.3.1.4-1) | Region | | o. of tria period 2011 | als Σ | Residue levels (mg/kg) HR STMR | | Report No. | Dossie ref.: |
|---------------------------------------|--------|---|------------------------------|----------|--------------------------------------|------|------------------|--------------|
| trials in Eu | ROPE | | | | | | 4 5 | 7 29 G |
| "hama & gardan" | EU-N | 5 | 4 | 9 | 0.50 | 0.26 | 10-2218, 11-2089 | ~91, 02,~ |
| "home & garden" | EU-S | 4 | 4 | 8 | 6 733 | 0.18 | 10-2219, 122090 | 03,04 |

Northern Europe residue region

| "harma Pr condom" | | | | | ((4/3) | | ~~ | 2 5% // | A / / / / / |
|-------------------------|-----------------|-------------|----------------------|------------------|--------------------|-------------|------------|-------------|----------------------|
| "home & garden" | EU-S | 4 | 4 | 8 | 6 233 | 0.18 | 10-22 | 19, 1 2090 | |
| EU-N = northern EU resi | due region, E | U-S = sou | thern EU r | esidue regi | on 🗸 | NO. | ₩ | Z Ô | |
| | | | | نے | 4 | Ź, | _& | | |
| Northern Europe i | rosiduo ro | aion | | Q) | 7" | | @` '\ | , ,0" | |
| Normern Europe i | estane re | <u>gion</u> | | & , . | | | / LJ | | |
| | | | | <u> </u> | | J AY | | | |
| Report: | KIIA 6.3 | | | • | | Q012 | | | |
| Title: | Determin | ation of | the recid | ues of B | YI 029 60 i | non Grane | after Spra | ying and Sp | oraying ow- lgiun |
| | volume of | fBYI 02 | 2960 & L∶ | 200 in the | e Fueld in | ermar©, F | rance (No | rff) and Re | lgiun |
| Report No. & | 10-2218, | | | | \$.\\$' | · • | | ~ @,v | Ò |
| Document No.: | M-43713 | | | <i>o</i> | , w | | | | |

| Report: | KIIA 6.3.13/02, 2012 2012 20 C |
|----------------|--|
| Title: | Determination of the resistues of YI 02960 in/on grap after high or low-volume spray |
| | application of BYI 02900 SL 500 in German, and northern Jance |
| Report No. & | 11-2089, dated August 17, 1912 |
| Document No.: | M-33685701-1-5 0 5 5 5 5 |

| Guidelines (applied to both studies). | Directive 91/414/EEC, residue in or or treated products, food and feed |
|---------------------------------------|--|
| | EC sudance working document 7029/VI/95 rev.5 |
| | US EPA (SPP Grideline No. 860.1500.SUPP |
| GLP (applies to both studies): | (certified laboratory, Deviations: none |

orther European residue region, as follows:

northern France [29, and Belgium) were conducted to support the use of BX1 02960 SL 200 in Sape , 2012, KIIA 6.3.1.4/01). Two applications were made at intervals of 14 days (132) and a nominal rate of 0.50 L/ha, corresponding to 100 g/ha B 102960 a.s. The water rate was 200-949 L/ha, reflecting local practice in the trial Aftereatments were made at the scheduled rates, except for the first application in one trial overdosed by 5%; this deviation was within the EU's standard acceptance criteria.

For Yurthotrials Were carried out in 2011, in Germany (2) and northern France (2), to complete the 2012, KIIA 6.3.1.4/02). The basic application parameters were similar as in 2010; the water rate was 200-800 L/ha. All treatments were made at the scheduled rates.

Samples of bunches of grapes were taken immediately prior and subsequent to the final application, and at several intervals thereafter (up to 21-28 days after treatment in 2010 and up to 42 days in 2011 trials); samples of the grapes themselves (destemmed berries) were also taken at day 14 in 2010 and on days 21 and 28 in 2011. The envisaged PHI was 14 days.

method 01212 (cf. KIIA 4.3/05). The respective LOQs for the 3 analytes were 0.01, 0.05, and 0.01 mg/kg (all in parent equivalents).

II. Findings

Validation of bunches of grape was done within method 01212 (cf. IIA 4.3/05).

of grape" and "berry". These sample materials are representative of attractions of these trials.

The recovery samples for parent and DFEAF in bunches were piked at level of 001 mg/kg and 0.10 mg/kg, as well as 0.80 mg/kg (expressed in BY, 2296/Pequivoents) in study 10-2218 and at levels of 0.01 mg/kg, 0.10 mg/kg, and 2.0 mg/kg (expressed in RYI 02900 equivalents) in study 11-2089. The recovery samples for parent and DFLAF in "berry" were spiked at levels of 0.01 mg/kg and 0.10 mg/kg, as well as 0.50 mg/kg (expressed in BYC02966 equivalents) in both rudies. Overall mean recoveries were all within acceptable range (187-10)8%, o Prall (1970s 0)8 12.2%, n=3-6).

Fortification levels in for DFA were or 0.02 vg/kg 0.20 mg/kg, and 1.6 vg/kg (study 10-2218) or 4.0°mg/kg (stady 11 2089) @xpres@d in & 1 02500 eq @valents) for the sample material "bunch", and 0.02 mg/kg, 0.20 mg/kg, and 0.0 mg/kg (spress in BYI 02950 equivalents) for "berry". Overall mean recoveries were with acceptable range, \$1-92%, overall RSDs 5.1-16.5%, n=3-6).

Details of recovery data are shown in table 6.3%.4-4. All trial data are summarised below in table 6.3.1.4-3a & b and in souther Stail in the Tier I sugmary forms. (Residues of parent BYI 02960 as well as its medibolites DFA and DFEAF are expressed in BYI 02960 equivalents. From these individual values, the "total reside of KVI 02000" was calculated as the sum of these three analytes, expressed in parent equivalent.

On day 0, immediately following the 2nd and mal treatment, residue levels in grape bunches were between 0.22 and 0.53 mg/kg media 0.36 mg/kg). By day 14 — the envisaged PHI — the levels had declined to 003-0.4 mg/kg with a median value of 0.24 mg/kg. The analysis of samples of the destemmed ruit (bergo) take at day 14 showed that there are no obvious differences in residues between bunch and in the sopres themselves. The residue levels in berries ranged from 0.11-0.52 rfg/kg (prediar 2.26 rfg/kg; n=5) on day 14, with values of 0.13-0.44 mg/kg in the corresponding buch samples (median \$22 mg/kg). The same behavior was evident in bunches and in destemmed berries Ren on day 21, with residues of 0.17-0.50 mg/kg (median 0.26 mg/kg) and 0.16-0.40 mg/kg (median 0.25 mg/kg), respectively; and on day 28, with residues of 0.21-0.34 mg/kg (median 0.26 mg/kg) and 0.18-0.44 mg/kg (median 0.28 mg/kg), respectively (n=4 in both cases).



The analytical results revealed that total residues often had not yet reached their highest levels at the nominal PHI (14 days). This was already evident in the 2010 trials, in which peak residue values were seen on day 21 (1 trial) or day 28 (2 trials), the final day of sampling. In order to capture the maximum relevant residue levels, additional sampling was conducted 35 and 4 ways after treaments in the 2011 program; in those trials, the highest residue levels were seen on day 14 (1 trial). 21 (2 trials), or day 42 (1 trial).

Peak residue levels at any relevant sampling interval (>14 days post-application) over the empley set of trials ranged from 0.18-0.50 mg/kg (median 0.26 mg/kg).

Evaluation of representativity:

As highest residue levels were seen on the final sampling intervation four trials (10-2268-01 day 21-10-2218-02 and -03, day 28; and 11-2089-01, day 42), the enforce set of trials was re-evaluated for the representativity.

In the 2010 package, trials 10-2212 03 to -05 essentials showed "placeau behaviors", with residues remaining fairly constant from the PHI to the final sampling date (of y 14 to day 28). Its trial 10-2218-01, there was an apparent "jump" in the residues on the final day, with the day 21 value of 0.49 mg/kg nevertheless being only approx. 10% mg/s than at the PHI. Trial 10-2218-02 showed a constant increase in residue levels from day 7 on, but again only about 10% between the small two intervals, reaching 0.45 mg/kg and ay 20.

In 2011, "platear behaviour was again evident, essentially in all of the trials. Only in trial 11-2089-01 were the peak residues found at the first sampling interval, 638 mg/kg on day 42. However, again, this value is only about 15% more than that at day 14 and the ourse of the residues over time was quite variable, with mall oses are falls between sampling days. These changes are generally quite small, and may be part to attributable to sampling, biological, and/or analytical variability. Thus, taken in the context of all of the grals, this trial can allo be seen as yielding representative results.

Trials 10-218-01 and -02 (4. above) can also be viewed in a larger context. Although the peak values in these two trials we among the higher alue on the set presented here, there is reason to believe that they would not continue to increase appreciably, as most trials showed "plateau" behaviour with peak sesidues measured an non-terminal sampling events (day 14, 1 trial; day 21, 3 trials) day 35, 1 trial). Doe to additional statistical factors applied in MRL-setting, even slightly higher residue values would not like have any effect on the MRL proposals.

Thus the trois are considered to be sufficient to evaluate the use described.



III. Conclusions (grape, northern European residue region)

In order to support the use in the EU of BYI 02960 in grape, 9 trials were conducted in the northern European residue region in the years 2010-2011 BYI 02060 formulation at an active substance rate of 100 g/ha. The application intervals were approx All applications were at the required rates, except for minor deviations in a single trial, which less than 25% and, therefore, well within the EUs standar acceptance cateria. All conducted according to GLP.

Samples were taken immediately after the 2nd application and at several intervals the pafter, inc the envisaged PHI of 14 days. They were analyzed for the releasent residues of BVI backet. The residence of all three.

The resultation comprising the parent compound and its metal-slites OFA and DFEAF results of the ora analytes were summed to yield a calculated "total residue of BYD presented above demonstrate that:

- total residues of BYI 02960 decliped in banch of grape between the smal application and the nominal PHI, from levels of 0.2 -0.53 mg/kg on day 0 after the figure trea ment (a) 0.13 0.44 mg/kg on day 14. The respective nodian values were 0, or mg/kg and 0.24 mg/kg, spectively.
- analytical results revealed that Otal results generally had not yet reached their peak levels at the nominal PHI, but that placeau behaviors was Orden 6
- anterval (≥14 days post-application) range.

 ...ene of the maximum residue levels, the trials reported here are presentative essults suitable for Mori, evaluation.

 ...no evolent difference between residues in bunches and in the grapes themselves a stemmed befries of the properties of the propertie 4 Cays post-application) ranged from 0.18-



Table 6.3.1.4-3a: Application scenario in residue trials conducted in/on **grape** after spraying with BYI 02960 SL 200 (northern European residue region)

| Study No. | | | | Application | • | | <i>Q</i>) |
|---|-------------------------------|---------------------------------------|------------------|-------------------------------|------------------|-------------|-------------|
| Plot No. | | | | | | | PHIO |
| (Trial No.) | | | | | | | 187 19 |
| Country | Crop | | | | | | W PHIÔ |
| Location | Variety | \mathbf{FL} | No. | kg/ha | kg/h | GS & | (dissis) |
| Location | Variety | | 110. | (a.s.) | (a.s.) | Ş | (days) |
| Region | | | | 0.100 0 0.100 0 0.100 0 | kg/kg/ (a.s.) | GS . A | PHIO (days) |
| Year | | | | | Ũ | | |
| 10-2218 | grape | 200 SL | 2 @ | 0.100 | 0.0125 | J. Ø 89 D | |
| 10-2218-01 | Müller | | 0,4 | 4 | | | |
| Germany | Thurgau; | | | Q' | 10° 54 | 4 | |
| | white variety | | 2 | ~ | Q* ~~ | | , |
| EU-N | | Q. | ľ | | | | |
| 2010 | | O T | , ÕŠ | | | | 4 |
| 10-2218 | grape | 200 SL | | 0.169 | 00.0125 | 85 | 14,00 |
| 10-2218-02 | Spätbur- gunder; | | | 1 % ' £ | | L 1 | |
| Germany | red | | , | | | | |
| | variety | | | | | | |
| EU-N | | 6 | 2 × 4 | | | | 1 |
| 2010 | red variety | lèn Ö | | | | | |
| 10-2218 | | 200 SL | | 0.10 | 0.0500 | P & | 14 |
| 10-2218-03 | grove % | 200 SL | - O | V.10 | Ø.0300 | 03 | 14 |
| northern France | nay; white | | (T) (T) | | | Ö | |
| | variety | | | | | V | |
| 4 | | a) (()) | | O &. | | | |
| EU-N | | <i>O</i> , | | Y 0' | | | |
| 2010 | | | | | <i>9</i> | | |
| EU-N 2010 10-2218 10-2218-04 northern France | graot Cabernet Qanc; ro | 200 SI | | 0.100- 0.105* | 0500 | 85 | 14 |
| 10-2218-04 | Cabernet | | | | | | |
| northern France | , Qanc; red | ×, | | | | | |
| EU-N 2010 10-2218 | variety | A S | | | | | |
| | | | | | | | |
| | | | , O' . * | | | | |
| EU-N | | _O' | | گ * | | | |
| 2010 | 4 0 . | | | | | | 1.4 |
| 10-2218 | Cabernet Quanc; red variety | 200 S). | | 0.100- | 0.0111 | 85 | 14 |
| 10-2218-05 | Cegent | | | 0.105* | | | |
| Belgium | vario | R & | | | | | |
| | | | | | | | |
| EU-N. | , , , , , , | | ~O~ | | | | |
| 2010 | | | y " | | | | |
| EL = formulation | | CC - CO | ila esta era (DD | CII anda) at las | | | |
| EU-N 2010 FL = formulation EU-N = northern European f * the first application was ov | | Company — cryw | ın stage (BE | och-code) at las | si ireauneni | | |
| EU-N = nortnern European r | esidue egion | @ . | | | | | |
| * the first apple tion was ov | erdesed by 5%. | ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ | | | | | |
| | O ĮŠ | ν | | | Con | tinued on n | ext page |
| | | | | | | | |
| | ~ L | | | | | | |
| | | | | | | | |
| * O _A | | | | | | | |
| Õ | | | | | | | |
| | | | | | | | |



Table 6.3.1.4-3a (cont'd.): Application scenario in residue trials conducted in/on grape after spraying with BYI 02960 SL 200 (northern European residue region)

| | | | | Tt But opean | | | 0 | |
|--|---|----------------------------|--|------------------|-----------------------|-------------------|----------------|----------|
| Study No. | | | | Application | Ļ | | PHI (days) | Ö |
| (Trial No.) | | | | | | | | |
| Country | Cuon | | | | ~ | | | 9 |
| Location | Crop | \mathbf{FL} | ».T | kg/ha | kg/h | GS & | PHIO | |
| | variety | | No. | (a.s.) | (a.s.) | | (days) | |
| Region | | | | (3333) | 1 | | ~G' | Ô |
| Year | | | | . | W ^y | ** | PHIO (days) | Į. |
| 11-2089 | grane | 200 SL | 2. | 0 100 | 2 0 0125 | Č185 | | <i>.</i> |
| 11-2089-01 | Müller | 200 SE | % | 0.100 | 0.0123 | . O S | W. | A |
| Germany | Thurgau; | | <i>a</i> .4 | | ľ | Y Q | | , U V |
| Germany | white | | 4 | Q, ^y | | # . * | © ,@ | ,* |
| | variety | | 00° " | ~ , ^v | a? Q | 1.0° & | ar l | |
| EU-N | | | | ~ ~ | | | | |
| EU-N | | <u> </u> | | | V (| | * U' | |
| 2011 | | O · | W 1 | | 200 | 7 | 144 | |
| 11-2089 | grape | 200 SL | ~ ² (| 0.100 | 90.0125 | O ⁸⁵ 2 | y 144 | |
| 11-2089-02 | Spätbur- | & " ~ | | | | 4 n | | |
| Germany | gunder; red | | | | | | 13 x | |
| | variety | | | | | | 0 | |
| | | P 💥 | ~~~ × |) | | | | |
| EU-N | | 1 | | | | | | |
| 2011 | Ø- | | | | | | | |
| 11-2089 | grape | 200 SL | Ø, | L 0 166 | ≈ 0.0500 [©] | 3 4 | 14 | |
| 11-2089-03 | Charden- | | 4. | | 9 | g- | | |
| northern France | nax; white | | | <i>*</i> | | , © | | |
| | variety | | 1 | | | | | |
| ~ | | | \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | 0 4 | | | | |
| EU-N | | , | | y 0' , | | | | |
| 2011 | | | o s | 0, | | | | |
| 11 2080 | | You ci | \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | 20 100 | ^ © 500 | 02 | 14 | |
| 11 2080 04 | Cabernet | 200 50 | | \$ 0.10 0 | 10300 | 83 | 14 | |
| northorn France | Fran red | \ \(\langle \(\langle \) | &" 8 | | J | | | |
| HOTHIETH FIANCE | variety | 1 2 % | y Ş | | ľ | | | |
| EU-N 2011 11-2089 11-2089-04 northern France | | | 10° | | | | | |
| | | | \$ | Ş N | | | | |
| | | | | | | | | |
| EU-N | | \ \^\O'\ \ |)" <u></u> | 4 | | | | |
| 2011 | grape Müller Thurgau; white variety grape Spätburgunder; red variety grape Chartenna white variety grape Charten ray white variety | | 0 | \ | | | | |
| - O.) | <u></u> | | | 90 | | | | |

FL = formulation

GS = Qowth Sige (BLOH-code) at last veatment

EU-N = norther of uroped) residuategion



Table 6.3.1.4-3b: Results of residue trials conducted in/on grape after spraying with BYI 02960 SL 200 (northern European residue region)

| Study No. | | | | Residues (mg/kg) ex | pressed as BYI 02 | 960 |
|-------------------------------|------------------|-------------|-------------------|--|--|----------------------------------|
| (Trial No.) Country GLP | Portion analyzed | DALT (days) | BYI 02960 | DFA | BYI 02969 DFEAG | total resoure of BYI 02960 ca |
| 10-2218 | bunch of | 0* | 0.18 | < 0.02 | < 0.0 1 | 00.21 |
| [10-2218-01- | grapes | 0 | 0.36 | <0.02 | 0.01 | 039 |
| l') Germany | | 7 14 | 0.43 0.38 | 0.05 | ©<0.01 ©, <0.01 | |
| | | 21 | 0.42 | 6 .06 | <0.01 | Q0.49 S & |
| GLP: yes | berry | 14 | 0.46 | A 0.05 | 0.01 | L, 0.5D |
| 10-2218 | bunch of | 0* | 0.05 | © <0.02 | <0.01 | |
| (10-2218-02- | grapes | 0 7 | 0.33 | 02 02 | | * 0.36 «J |
| l') Germany | | 14 | 0.23 | 0.04 0.04 0.00 0.00 | 8.01 | 0.2 8 c ° |
| | | 21 | 0.34 | 000 Q | <0.01 | |
| GLP: yes | | 28 | 0.38 | 7 207 | | 0.45 |
| | berry | 14 | | 9.04 | 0′ 20.01 | 0.35 |
| 10-2218 | bunch of | 0* 0 | 08.08 | ~ O.Q. T | \$0.01\$° | 042 |
| (10-2218-03- F) | grapes | 7 | Q 0.22 | 0.03 005 | | × 0.20 |
| France | | 14 @ | y " vi 4 0 | \$0.06 @ 0 0.07 \ | 0.01 | 0.22 |
| GLP: yes | | 21 | Ø.13 | | 0.01 00.02 | 0.21 0.26 |
| JLI. yes | berry | Ö 1 | 0.130 | 0.11 | 7 <0.00 7 <0.00 7 <0.00 7 <0.00 | 0.26 |
| 10-2218 | 1 1 0 | N 1 | 000 | | | 0.07 |
| (10-2218-04- | grapes grapes | | 20.04 20.19 | 0.020 | \$\leq 0.01 \rightarrow \leq 0.01 \rightarrow \leq 10.01 \rightarrow | 0.07 |
| Γ) | | 7 | 0.00 | | O'<0.01 | 0.13 |
| France | | 0 21 | | 7 0.06 | <0.01 <0.01 | 0.13 0.18 |
| GLP: yes | | 28 | \$0.06 P | J. 0.00 | 4 0.01 | 0.13 |
| | berry | 28 | 0.06 | | № <0.01 | 0.11 |
| 10-2218 🚀 | bunch of | ∠ 0* « | | <0.02 @ | % <0.01 | 0.12 |
| (10-2218-65- | grapes | | Ø.42 | \$\langle 0.02\forall \qu | <0.01 <0.01 | 0.45 0.23 |
| Belgium | | 㔴 | 0.20 0.10 | \$\int \(\langle 0.02 \\ \langle \(\langle 0.02 \\ \langle | <0.01 | 0.23 |
| - <i>6</i> | Ž | 21 | T 9:20 . C | 0.03 | < 0.01 | 0.23 |
| GLP: yes | Q | 28 | 7 0.16 | 0.03 | <0.01 | 0.20 |
| * | berry O | | 0.200 | 0°<0.000° | < 0.01 | 0.23 |
| PALT = days at | eatment | | 0.06 × | | Contin | ued on next page |



Table 6.3.1.4-3b (cont'd): Results of residue trials conducted in/on grape after spraying with BYI 02960 SL 200 (northern European residue region)

| Study No. | | | | Residues (mg/kg) exp | pressed as BYI 02 | 960 |
|--|-------------------|---------------------------------------|---|--|--|--|
| (Trial No.) Country | Portion analyzed | DALT (days) | BYI 02960 | DFA | BYI 02969 DFEAG | total resource of BYI 01960 case |
| 11-2089 (11-2089-01) Germany GLP: yes | bunch of grapes | 0* 0 14 21 28 35 42 | 0.079 0.33 0.26 0.21 0.20 0.21 0.22 | <0.02 <0.02 0.04 0.078 0.089 0.12 0.15 | 0.01 0.01 0.01 0.01 0.01 0.01 0.01 | 0.110 0.367 0.367 0.300 0.380 0.380 0.380 |
| | berry | 21 28 | 0.22 0.21 & | 0.069 | | \$\infty\0.30 \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ |
| 11-2089 (11-2089-02) Germany GLP: yes | bunch of grapes | 0* 0 14 21 28 35 42 | 0.23 0.50 0.36 0.25 0.25 0.25 0.35 | \$\int_{\circ}0.02\circ\$\$\text{\$\pi\$}\$\text{\$\pi\$}\text | 0.01 0.00 0.00 0.01 0.01 0.01 0.01 | 0.26 0.36 0.42/0.01*** 0.50 0.34 0.39 0.48 |
| | berry | 21 28 | 9.91 20.34 | 0.077 | 0.01 <0.01 | 0.40 0.44 |
| 11-2089 (11-2089-03 France GLP: yes | bunch of grapes | 0 0 14 21 28 35 | 0.096 0.39 0.24 0.18 0.14 0.14 | 2 <0.02 <0.02 0.038 0.040 0.068 0.064 0.075 | <0.00 <0.01 <0.01 <0.01 <0.00 <0.00 <0.00 <0.00 | 0.12 0.42 0.18 0.23 0.21 0.23 0.21 |
| | bery | 21 % | © 0.12 0.15 | 0.052 | <0.01 <0.01 | 0.19 0.25 |
| 11-2089 (11-2089-04) France GLP: yes | buncl@f grapes | 0 % 14 % 310 % 35 % 42 % | 0.070 9.21 0.13 0.16 0.10 0.10 0.10 0.10 0.10 | \$\begin{align*} \begin{align*} \begi | <pre><0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01</pre> | 0.10 0.29 0.24 0.17 0.21 0.16 0.15 |
| al al | Berry | 26 | 0.120 | 0.0 0 5 0.060 | <0.01 <0.01 | 0.16 0.18 |

DALT = days ofter last treatment
* prior to last treatment



Table 6.3.1.4-4: Recovery data for BYI 02960 in grape

| Study No. Trial No. | | D (* | , | | Fortifi- | | Recov | very (% | (o) | Q, ° |
|--------------------------|--------------|------------------|---|-------------|----------------------------|--|---|---------------------|----------------|---------------------------------|
| GLP Year | Crop | Portion analysed | a.s./ metabolite | n | cation level (mg/kg) | Individual recoveries | Ş | Max | Mean (| RSD |
| 10-2218 (10-2218-01), | grape | bunch of grape | BYI 02960 | 3 | 0.01 | 102; 106; 116 102 | 102 | 116 102 | 168 | 7.7 5.7 7.7 7.7 7.7 |
| to (10-2218-04) | | | DFA | 2 6 3 | overall | 105; 107 65; 84; 11 | 105 102 | 107% 198 | 106 9 | ©' \$59 \$1.6.6 |
| GLP: yes 2010 | | | DIA | | 0.20 1.6 ° | 101 98 0705 | 708 7065 | 905 | , 16-2 , 92 | 21.6 © 16.5 |
| | | | BYI 02960-DFEAF | 3 | 0.10 | 102; Q 3; 107 100 Q 7; 100 | 102 | 107C 107 2100 | 1040 \$100 | |
| | grape | berry | \$\frac{\sqrt{0}^2}{4\sqrt{1}} \frac{0}{2960} | 6 ° | o. | 100, 108 | 925 0107 % | 107 108 9107 | 1030 | 3.3 |
| | | Ţ | | 1 | 0.50 overall | 109 | 108 | 109 | 108 | 0.8 |
| | Q Q | | DFA | | 0.20 | 97 O (| 78 ° 78 ° 78 ° 78 ° 78 ° 78 ° 78 ° 78 ° | \$86 97 97 | 82 | |
| * | | | B 02960 | 4 | owrall 0.01 | | 78 103 | 97 107 | 90 | 10.3 |
| | | | DFEAF | | 0.50 | 103; 307 106 401 | 106 101 | 106 101 | | |
| | | | | | overall • | | 101 Co | 107 ontinue | d on nex | 2.6 et page |
| |) | | | | | | | | | |
| 4 | | | | | , i | | | | | |
| | | | | | | | | | | |
| | ч <i>О</i> г | | | | | | | | | |



Table 6.3.1.4-4 (cont'd): Recovery data for BYI 02960 in grape

| <i>Study No</i> . Trial No. | | Portion | | | Fortifi- | | Recov | ery (%) | | w° |
|--------------------------------|-------|--------------|---------------------|----------------|----------------------------|-----------------------|-------------------|--------------|--------------------|------|
| GLP Year | Crop | analyse d | a.s./ metabolite | n | cation level (mg/kg) | Individual recoveries | Min | Max | Mea | |
| 11-2089 | grape | bunch of | BYI 02960 | 2 | 0.01 | 98; 93 | 93 | 98 | \$ ⁹⁶ ~ | |
| (11-2089-01), | | grape | | 1 | 0.10 | 111 | 5 11 | 111% | ~ ° 4 | |
| to (11-2089-04) | | | | 1 | , N, | 101 Ø. | 101 93 | 105) | | |
| GLP: yes | | | DFA | 2 | overall ©02 | 70; 83 | 70 | | \$ 77.0C | 7.3 |
| 2011 | | | | 1 | 0.20 | 79 | 790 | .76 | | |
| | | | | 1 | 4.0 ° ov@rall | 930 | 75 70 70 | 3 | | Ş |
| | | | (|)¥ | o@rall | | ₹ ⁷⁰ (| | 814 | 11.7 |
| | | | BYI 0296 | 2 | 0.01 @ | 96; 1 Q | 96 96 | 110° | Tox, | |
| | | | | | | 300 | 107 (| \$107 | | |
| | | | | 4 % | (Veralk | | 9,65 | 116 | 103 | 7.5 |
| | | berry | QVI 02960 | b | 0.6 | 96 | 95 % | <i>€</i> ,96 | *** | |
| | | | | Q [*] | 1 0 | | • | 95% | ļ | |
| | | \ ' | | | 0.50 overall | 104 | 104 | 104° | 98 | 5.0 |
| | | | DFA 2 | | @/02 | | 83 \$ | ₹ 83 | 98 | 5.0 |
| | | | | 1 4 | 0.20 | 82 0 | 82× | 82 | | |
| | | | \$.T | 1 | 1,6 | | 827 90 | 90 | | |
| | | | | 3 | overall | | © 82 | 90 | 85 | 5.1 |
| 2 | | | BY 029600 DFEAF | | 0.01 | 75 \$ 94 \$ 0 | 75 94 | 75 94 | | |
| | | | | | Q.50 a | 94 W | 93 | 93 | | |
| | °~ | | | 3 👡 | Qverali V | | 75 | 94 | 87 | 12.2 |
| | | | | | | | | | | |

Southern Europe

| Report: | KIIA 6.3.1.4/03, 2012 | | _ 0 |
|----------------------------|--|--|---------------|
| Title: | Determination of the residues of BYI 02960 in/on Grape at volume of BYI 02960 SL 200 in the Field in France (South | fter Spraying and S n), Spain and Italy | Spraying, Lw- |
| Report No. & Document No.: | 10-2219, dated August 22, 2012 M-437131-01-1 | | |

| Report: | KIIA 6.3.1.4/04, | 2 | 2012 | Ÿ, | | |
|---------------|--|------------------|--------------|----------------|----------|-------|
| Title: | Determination of the residue | s of BYI 02%0 in | on grape | ter high or lo | volum | sprag |
| Report No. & | application of BYI 02960 SI 11-2090, dated September 18 | | n southern's | rance, Sparo | and Lary | |
| Document No.: | M-438482-01-1 | 0, 2012 | ~ . | | | ~ |

| | Directive 1/41 CEC, Asidue of or or reater products, food and feed EC guidance porking occument 7029 1/95 rev.5 US LPA QC SPP Guideling No. 86+1500 G JPP |
|--------------------------------|---|
| GLP (applies to both studies): | y (certified lab Catory) Devia Ons: nove |

Materials and Methods

Eight field residue trials were conducted by the southern European regulue region, and follows:

Four further trials are carried on in 2011, in outher France, Spain (2), and Italy, to complete the data package (2012, KDA 6.21.4/04). The basic application parameters were similar as in 2010. All treatments were made at the scheduled rates.

Samples of bunches of grape were taken is mediately prior and subsequent to the final application, and at several intervals the cafter up to \$7-28 days after treatment in 2010 and up to 42 days in 2011 trials, samples of the grapes themselves (decommed berries) were also taken at day 14 in 2010, and on days 21 and \$\mathbb{Q}\mathbb{E}\$ in 2011. The envisaged \$\mathbb{D}\mathbb{H}\mathbb{I}\$ was 14 days.

The sample were analyzed for the parent compound and its metabolites DFA and DFEAF using method 1212 (cf. KIIA 49/05). The respective LOQs for the 3 analytes were 0.01 mg/kg, 0.02 mg/kg, and 0.00 mg/kg (all in parent equivalents).



II. Findings

Validation of bunches of grape was done within method 01212 (cf. KIIA 4.3/05). Concurrence recoveries of BYI 02960 and its metabolites DFA and DFEAF were obtained from samples of bunches and of "berry". These sample materials are representative of all sample materials collected in these trials.

The recovery samples for parent and DFEAF were spiked at levels & 0.01 mg/kg and 0.19 mg/kg, as well as, 1.0°mg/kg (study 10-2219) or 2.0 mg/kg (study 11-2090) (expressed in BYI 0960 equivalents). Overall mean recoveries were all within acceptable ranges (92-104% overall RSD 0.5-7.7%, n=3-5).

Fortification levels for DFA were or 0.02 mg/kg 0.20 mg/kg and 2.0 mg/kg 0study 10-2219) or 4.0 mg/kg (study 11-2090) (expressed BY 02960 equivalents) for the sample platering "bero" and "bunch of grapes". Overall mean recoveries were all within acceptable tanges \$8-955, overall RSDs 2.2-17.1%, n=3-5).

Details of recovery data are shown in table 5.3.1.4-6. All trial data are summarised below in table 6.3.1.4-5a & b and in greater detail in the Tier Lummary forms. (Residue of parent BYI 02960 as well as its metabolites DFA and DFEAF are spressed in BYI 02960 equivalents.) From these individual values, the total residue of BYI 02960 was calculated as the sum of these three analytes, expressed in parent equivalents.)

On day 0, impediately following the 2nd and fing treatment, residue levels in grape bunches were between 0.18 and 0.30 mg/kg (median 0.31 mg/kg). To day 14 — the envisaged PHI — the levels had declined to 0.08-0.26 mg/kg, with a predian value of 0.14 mg/kg.

The analysis of samples of the destempted fruit (berry taken at day 14 showed that there are no differences in residues between bunches and of the grapes themselves. The residue levels in berries ranged from 6/8-0.20 mg/kg (mechan 0.45 mg/kg), n=4) on day 14, with values of 0.08-0.23 mg/kg in the corresponding bunch simple (median 0.15 mg/kg). The same behavior was evident in bunches and in bedies taken at day 21 owhere residues were 0.11-0.27 mg/kg (median 0.16 mg/kg) and 0.11-0.28 mg/kg (median 0.17 mg/kg), respectively; and on day 28, with residues of 0.10-0.31 mg/kg and 0.12-0.32 mg/kg, respectively (median 0.28 mg/kg in both cases); n=4 in all cases.

The analytic presults revealed that total residue levels often had not yet reached their highest levels at the nominal PHI 12 day. This was already evident in the 2010 trials, in which peak residue values were seen on day 21 (2 trials) or on day 28 (1 trial), the final day of sampling. In order to capture the maximum report of the 2011 program; in those trials, the highest residue levels were seen on day 14 (1 trial), 21 (2 trials), or day 42 (1 trial).

Peak residue levels at any relevant sampling interval (≥14 days post-application) over the complete set of trials ranged from 0.08-0.33 mg/kg (median 0.18 mg/kg).

Evaluation of representativity:

As highest residue levels were seen on the final sampling interval of three trials 00-2219-01 day 21 and 28, respectively; and 11-2090-01, day 42), the entire set of trials was re-evaluated for its representativity.

In the 2010 package, the trials generally showed "plateau behaviour", constant from the PHI to the final sampling date (day 4 to day 28)

Trials 10-2219-03 and -04 showed residues reaching a plateau well by day 14, with beak values of day 14 or 21. In trial 10-2219-02, residues showed "sormal decline behaviour colly, followed by slow increase in residues up to day 28. However, the increase incr very small, only 0.01 mg/kg, indicating that a plateau kyel had been reached within the scope of variability caused by sampling, biological, and or analytical pects

In trial 10-2219-01, residues showed normal desline behaviour at first then eaching a plateau level by day 7 to day 14, followed by an apparent "jump" in the residues on the final day from (\$\text{Q3}\$ mg/kg on day 14 to 0.28 mg/kg on day 28

In 2011, "normal" decline behaviour was evident in wals 15 2090-02 and 04, both reaching a plateau level by at least day 20. In troils 112090-01 and 03, revidues romain of fairly constant over the entire sampling period. Letrial 14-2090 1, the highest reside of 003 mg/kg was found on day 42, i.e. the last day of sampling. However, this "increase" is very small, with the difference per sampling interval of just 0.01 mg/kg, and may be condered within context of variability, due to sampling or analytical error. Thus taken in the cont xt of all of the talks, this trial can also be seen as yielding representative results.

Trial 10-2219-01 (St. above) can also be viewed in the arger context. Even given the "jump" from 0.23 mg/kg on day 14 to 0.28 kg/kg on the smal sampling day of this trial, there is reason to believe that residues yould not continue to limb appreciately. In none of the trials did the residues climb higher over time than residues dectly ther the application. Thus, it can be assumed that even if values in this trial were to incoase, they would still be in the same range as the highest residue seen in aus the trial oare considered to be valid and representative of the use described. the rest of the trials (0.33 mg/kg), and woold therefore have no effect on the critical data used to evaluate and establish Ma

Thus the trialoar

usions (grape, southern European residue region)

In order support the use in the EU of BYI 02960 in grape, 8 valid trials were conducted in the southern European residue region in the years 2010-2011. BYI 02960 was applied twice as an SL 200 formulation at an active substance rate of 100 g/ha. The application intervals were 14 days. All



applications were at the required rates, except for minor deviations in a single trial, which were less than 25% and, therefore, well within the EUs standard acceptance criteria. All trials were conducted according to GLP.

Samples were taken immediately after the 2nd application and at several interval thereafter, the envisaged PHI of 14 days. They were analyzed for the relevant residues BYI 02960 comprising the parent compound and its metabolites DFA and DFEAF. The residues of of analytes were summed to yield a calculated "total residue of BYI 02960." The results of presented above demonstrate that:

- total residues of BYI 02960 declined in bunches of grapes between the final application and the nominal PHI from levels of 0.18 0.50 mg/ls of 1.10 0.00 mg/ls of 0.18 0.50 mg/ls of 0.18 reasp.

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 control yet reached the

 crystile levels, the trials reported here are congrowed new and in the grapes themselves

 reasp.

 A marke,

 control yet reached the

 crystile levels, the trials reported here are congrowed new and in the grapes themselves. nominal PHI, from levels of 0.18-0.50 mg/kg on day 0 after the first treatment to 0.08 \$6.26 mg/kg on day 14. The respective median values were 0.2 mg/kg and 0.14

 - despite the delayed attachment of the seak residue levels, the trials reported here are considered to yield representative results mitable for MET evaluation.



Table 6.3.1.4-5a: Application scenario in residue trials conducted in/on **grape** after spraying with BYI 02960 SL 200 (southern European residue region)

| BYI | 02960 SL 200 | (soutnern 1 | European | resiaue regio | on) | | 0 | |
|--|--|---------------------------------------|------------------|---|-------------------|---|------------|----------|
| Study No. | | | | Application | l _i | | PHI (days) | ð |
| (Trial No.) | | | | | | | | |
| Country Location | Crop | FL | | 1/1 | | CS | © PHI | |
| Location | Variety | FL | No. | kg/ha (a.s.) | kg/ht | GS 4 | (days) | |
| Region | | | | (a.s.) | (a.s.) | Ş | | Ô |
| Year | | | | ⊳ _A | kg/hk (a.s.) | | | ľ |
| 10-2219 | grape | 200 SL | 2 | v 0.100 | kg/h (a.s.) | GS 4 | | _@ |
| 10-2219-01 | Chardon- | | L, " | | ₽ . | | | , Ő |
| southern France | nay; white variety | | , (C) | | |) | | , |
| | , arresy | | | ~ . | | | | |
| | | <i>n</i> . | * | | | | 7. Š | |
| EU-S | | | Q Q | | | | 4 | |
| 2010 | | 4 | | | | | \$\ _\L'\\ | |
| 10-2219 | grape | 200.SL | 2 2 | Q100 £ | 0.050 | \$ \$5 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ | | |
| 10-2219-02 | Bobal; red variety | | | | | | 20 | |
| | variety | 200.SL | | | | | | |
| | Q q | ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ | | | | | ¥ | |
| EU-S | | | | (()) | 0.0180 70.0180 | 81 | | |
| 2010 | grape & Trobbiano white | | T. | | | * | | |
| 10-2219 | grape & | 2000 L | L, 2 | 0.400 % | 0.0100 | 81 | 14 | |
| 10-2219-03 | Trebbiano " | | | , J | | | | |
| Italy | variety | | | | | | | |
| EU-S 2010 10-2219-04 Spain | Y 🔊 . 🛎 | | | | | | | |
| EU-S | | | | | <i>a</i> , | | | |
| 2010 | 0' 27' | | | 0.0878 0.0888 0.0888 CH-code) at las | | | | |
| 10-2219 | grape | ¥ 200 €£ | \$\tag{2} \gamma | 0.0878 | 0.0110- | 81 | 14 | |
| 10-2219-04 Spain | wariety & | 1 , ~ , ~ | | 0.0886 | 0.0112 | | | |
| Spain EU-S 2010 | | \$\frac{1}{2} \text{\$\infty}\$ | , "O" | | | | | |
| | | | | | | | | |
| | | | 7 & | S | | | | |
| EU-S | 3 0 | | oʻ | 8 | | | | |
| 2010 | | | | Ş | | | | |
| FL = formulation | grape Trobbiano Write variety grape Maret; red variety | GS growt | h stage (BB | CH-code) at las | st treatment | | | |
| EU-S = southern European | resione region | | , W | | | | | |
| Ž, , | | | ~~ | | Con | tinued on ne | ext page | |
| | | | Q' | | | | | |
| | | Q S | A, | | | | | |
| | | | | | | | | |
| 4 4 | ` &' J | y . Q | | | | | | |
| | | \ | | | | | | |
| EU-S 2010 FL = formulation EU-S = southern European | | A | | | | | | |
| J Ž A | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Ö | | | | | | | | |
| . | | | | | | | | |
| | | | | | | | | |



Table 6.3.1.4-5a (cont'd.): Application scenario in residue trials conducted in/on grape after spraying with BYI 02960 SL 200 (southern European residue region)

| | with D110 | 2700 SL 20 | o (souther | n European i | residue regi | on) | 0 | |
|--|-----------------|----------------|---|---------------------------------------|--|--------------|---------|------|
| Study No. | | | | Application kg/ha (a.s.) 0.10 | | · · · | | ð |
| (Trial No.) | | | | | | | | |
| Country | Crop | | | | 8 | | PHIA | 9 |
| Location | Variety | \mathbf{FL} | No. | kg/ha | kg/h | GS 4 | | |
| | variety | | INO. | (a.s.) | (a.s.) | | (uays) | |
| Region | | | | | | . 0 | | Q |
| Year | | | | ⊳ _A | | | | 9 |
| 11-2090 | grape | 200 SL | 2 | 0.10 | 0.050 | _₿83 ≈0 | | ~ (V |
| 11-2090-01 | Ugni blanc; | | .r. | | | | | OY |
| southern France | white | | ,Ø | S, | | ~ ~ | | , |
| | variety | | | Q | o A | Ay . | | |
| | | | Q0 | | Q' ~ | | _@' | |
| EU-S | | (| , see a | | | | T' | |
| 2011 | | o ^v | , Ø | | | 7 | 4 | |
| 11-2090 | grape | 200 SL | | 0.10 | 0.010 | 3 1 . | 7 14 (° | |
| 11-2090-02 | Bobal; | | | | | | | |
| Spain | red variety | | | | | | | |
| | | 200 SL | | | | | 0 | |
| | , (| Dy 💥 | | | F 5 | | | |
| | | | | 0.10 | | | | |
| EU-S | Ø1 | | | | | | | |
| 2011 | | | ®' | | | | | |
| 11-2090 | grape & | 2000 L | ∠ 2 ~ | 0.40 % | 7 0.010 | 79 | 14 | |
| 11-2090-03 | Xaogelo; | | | , , , , , , , , , , , , , , , , , , , | | S Kj | | |
| Spain | write | | | | | 3 | | |
| | variety | | \(\infty\) | | | | | |
| | | _@ | | , o | \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ | | | |
| | | | | | Q1 | | | |
| EU-S | | | | | ~\$~ | | | |
| 2011 | | Y , O' | | | *** | | | |
| 11-2090 ° Ş | graço | 200 SL 👡 | Q 2 Q | 0 10 . @ | 0.010 | 81 | 14 | |
| 11-2090-040 | Lambrusco, | | ø o | | | | | |
| Italy 💸 | red variety | | Q | | | | | |
| | | | | | | | | |
| | 4 2 | , O' « | j" 🖳 | 1 | | | | |
| | 4 Q" | | 0 | 8 | | | | |
| EU-S | | | | Q . | | | | |
| 2011 | | | × . " | <i></i> | | | | |
| $FL = formulation \qquad GS = g$ | growth stage BI | BCI/Qode) at | ast treather | nt | | | | |
| EU-S = southern European r | esidue resion | | , W | | | | | |
| | ? Q _ | | | | | | | |
| 4) 49 | A W | | Ÿ | | | | | |
| ~ | | Q 39 | 7 | | | | | |
| | | V | | | | | | |
| 4 1 | | 7 Q | | | | | | |
| | | w . | | | | | | |
| 2011 11-2090 11-2090-03 Spain EU-S 2011 11-2090 11-2090-044 Italy EU-S 2011 FL = formulation GS = 1 EU-S = southern European recommendation Europ | | 2 | | | | | | |
| | | | | | | | | |
| | ZZ | | | | | | | |
| | | | | | | | | |
| | 2 | | | | | | | |
| Ö | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |



Table 6.3.1.4-5b: Results of residue trials conducted in/on grape after spraying with BYI 02960 SL 200 (southern European residue region)

| Study No. | | | Re | esidues (mg/kg) ex | pressed as BYI 029 |)60 © \(\(\) |
|---|---|--------------------------------|---------------------------------------|--|--------------------------------------|--|
| (Trial No.) Country | Portion analyzed | DALT (days) | BYI 02960 | DFA | BYI 02960- DFE | total residue of BYI 00960 cash |
| 10-2219 (10-2219-01) France | bunch of grapes | 0* 0 7 14 | 0.09 0.32 0.19 0.17 | <0.02 <0.02 0.03 0.05 | 0.01 0.01 0.01 0.01 0.01 | 0.18 0.18 0.23 0.23 |
| GLP: yes | berry | 21 14 | 0.22 0.15 | 0.05 | <0.01 | 0.28 |
| 10-2219 (10-2219-02) Spain GLP: yes | bunch of grapes | 0* 0 7 14 21 28 | 0.07 0.29 0.11 0.06 0.12 | <0.02 <0.02 0.02 0.05 0.05 0.06 | <0.01 <001 <001 | 0.10 |
| | berry | 14 | ©.10 (×) | 0.05 | \$0.01 | 0.20 |
| 10-2219 (10-2219-03) Italy | bunch of grapes | 0* 0 7 14 | 0.11 0.49 0.49 0.07 0.07 | 7 0.02 0.02 0.04 7 0.06 | 0.05 0.01 0.01 0.01 0.01 | © 0.14 0.50 0.14 0.12 0.16 |
| GLP: yes | house | 28 | \$0.09 \$\times 0.00 \$\times 1 | 0.06 | <0.01 | 0.13 |
| 10-2219 (10-2219-04) Spain GLP: yes | bunch of grapes | × 4 | 0.03 0.15 0.05 0.05 0.05 | 002 002 002 002 003 003 | 0.010 0.010 0.011 0.011 | 0.06 0.18 0.11 0.08 0.08 0.07 |
| Pa | Derry S | 20 | | 0.02 | 2 <0.01 | 0.08 |
| DALT = days fit * prior to to tree Residues calcula | ater last treatment catment cated and capro | esseitys B | 0.0 Y YL02960 S Y J | | Cont | inued on next page |



Table 6.3.1.4-5b (cont'd.): Results of residue trials conducted in/on grape after spraying with BYI 02960 SL 200 (southern European residue region)

| Study No. | | | R | esidues (mg/kg) exp | oressed as BYI 029 |)60 ° |
|---|--|--|---|--|--|---|
| (Trial No.) Country | Portion analyzed | DALT (days) | BYI 02960 | DFA | BYI 029 | total revalue of BYI 02960 ca |
| GLP BYI 02960 SL | 200 | | | | | |
| 11-2090 (11-2090-01- T) France GLP: yes | bunch of grapes | 0* 0 14 21 28 35 42 | 0.072 0.24 0.10 0.081 0.073 0.055 0.083 | 0041 7056 0.14 0.17 0.22 0.26 0.25 | (0.01 (0.01 (0.01 (0.01 (0.01 (0.01 (0.01 (0.01 (0.01 (0.01) | 0.26 0.26 0.20 0.31 0.32 0.33 |
| | berry | 21 28 | 0.086 0.091 | 0.18 X | 3 01 3 | 0.28 |
| 11-2090 (11-2090-02- T) Spain GLP: yes | bunch of grapes | 0* 0 14 21 28 35 42 | 0.047 0.05 0.05 0.048 0.036 0.043 0.043 | 0.024 0.024 0.020 0.052 0.036 0.036 | <0.00 <0.01 <0.01 <0.01 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0.00 <0 | 0.20 \$\frac{1}{2}\$ 0.20 \$\frac{1}{2}\$ 0.06 \$\frac{1}{2}\$ 0.089 0.11 |
| | berry | 21 | © 0.050 © 0.066 | 0.647 | <0.01 | 0.11 0.12 |
| 11-2090 (11-2090-03- T) Spain GLP: yes | bunch of grapes & | 28 034 42 | 0.0325 0.12 0.064 0.066 0.036 0.036 0.036 | 0.023 0.057 0.085 0.090 0.090 0.090 | | 0.058 0.18 0.15 0.18 0.15 0.15 0.15 0.14 |
| | | 20 28 | 0.038 | 0079 | <0.01 | 0.13 |
| 11-2090 (11-2090 04- T) Italy GLP: yes | bunch of grapes | 0* 00 14 28 35 42 | 0.046 0.39 0.16 0.053 0.049 0.05© | 0.039 0.025 0.064 | <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 | 0.076 0.42 0.17 0.13 0.13 0.15 0.15 |
| 4 | berry | 28 × | 0.089 | 0.098 | <0.01 <0.01 | 0.19 0.15 |
| DALT = Sys aff * prior to last tre Residues calcula | ter last treasuratment of ted and expression | ment de la company de la compa | 37 02960 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 | 0.07 0.07 0.095 0.092 0.077 | | |



Table 6.3.1.4-6: Recovery data for BYI 02960 in grape

| Trial No. | | | | | Fortifi- | | Reco | very (% | | Ø1° |
|------------------|--|-----------------------------------|------------|----------------|---------------------|---------------------------|------------------|-------------|--|-------------|
| 11141110. | Crop | Portion | a.s./ | n | cation | | | | Mean | |
| GLP | Crop | analysed | metabolite | - | level | Individual | Min% | Max | Mean | RSD |
| Year | | | | | (mg/kg) | recoveries | | | 4, | |
| 10-2219 | grape | bunch of | BYI 02960 | 2 | 0.01 | 110; 98 | 980 | 110 | 104 | |
| (10.2210.01) | | grapes | | 2 | 0.10 | 108; 97 | € 797 | 108 - | Q'03 | |
| (10-2219-01), to | | | | 1 | 1.0 | 95 a | 95 | 95% | | a Ç |
| (10-2219-04) | | | | 5 | overall | | 95 | 100 | 130 | 49.8 |
| GLP: yes | | | DFA | 2 | \$2 \$2 | 97; 95 | 95 | O 97 | 9 6 | |
| 2010 | | | | 2 | 9.20 | 92; 96 | 92 | 96 | 94 | |
| | | | | 18 | 2.0 | 92; 96 | 27 | | 94 | |
| | | | | \$5 | oy@all | | 492 | . 97 | ×0.5 | 2.2 |
| | | | BYI 02960- | 2 | ₹0.01 | 93; 910 | 91 | 93 | 92 | |
| | | | DFEAF | 2% | 0.10 | 104; 97 | . 85 | 104 | 92 = 1 | |
| | | | | | 100 | 103 | 1 % 13 | 2003 | & | |
| | | | | 5 | everall | | ີກັ Q 1 ຄ | 104 | 98, | 6.0 |
| | grape | berry | BVI 02960 | 1 | 0.01 0.00 0.0 | 102 | 103 007 | 1000 | 4 i | |
| | | | Q | Ğ | 000 | 107 20 | P 07 | Q07 | ************************************** | |
| | | | | 1 | 0.0 A | 103 | 103 | 103 | Y | |
| | | $\swarrow_{\scriptscriptstyle 1}$ | 4 29 | 3 4 | overall | | 100 | 107 | 104 | 2.5 |
| | | | | | | ØN 7/ | ~(\$\frac{3}{3} | % 3 | | |
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| | 4 | | | 1.4 | 2.0 | 99 0 | 102 | 99 | | |
| | | 4 . | Š'. 79 | 3 | oxoall | | _@ 83 | 102 | 95 | 10.8 |
| | | | BYI 02960~ | × ₁ | 7.01 | J 02 0 5 | 102 | 102 | | |
| | | | DEVAF | 1 % | 0.10 | 100 | 100 | 100 | | |
| Č | The state of the s | 4 5 | | | 10 | 107 | 107 | 107 | | |
| | | | | 3 | overall≪ | | 100 | 107 | 103 | 3.5 |
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Table 6.3.1.4-6 (cont'd.): Recovery data for BYI 02960 in grape

| bunch of grapes berry | a.s./ metabolite BYI 02960 DFA BYI 02960- DFEAF | 2 2 1 5 2 2 1 5 | cation level (mg/kg) 0.01 0.10 2.0 overall 0.20 4.0 ownall | Individual recoveries 104; 95 89; 103 108 62; 100 92; 96 89 | 93 89 108 89 62 | 104 103 108 108 000 | Mean 100 096 100 100 100 100 100 100 100 100 100 10 | DRSD DRSD DRSD |
|---|--|--------------------------------------|---|---|-----------------------------|---------------------------------|---|---|
| bunch of grapes | BYI 02960 DFA BYI 02960 | 2 2 1 5 | 0.01 0.10 2.0 overall | recoveries 104; 95 89; 103 108 | 93 89 108 89 62 | 104 103 § 108 | 100 096 150 281 | RSD PRSD |
| grapes | DFA (6) BYI 02960- | 2 1 5 | 0.01 0.10 2.0 overall 0.20 4.0 | recoveries 104; 95 89; 103 108 | 93 89 108 89 62 | 104 103 § 108 | 100 096 150 281 | |
| grapes | DFA (6) BYI 02960- | 2 1 5 | 0.10 2.0 overall 0.20 4.0 | 89; 103 2108 62: 100 | 89 108 89 62 | 103 | 7 | 7 7 7.7 |
| | BYI 02960- | 1 5 | 2.0 overall 0/2 0/2 0/2 4.0 | 62: 100. | 89 62 92 92 | 108 | 7 | \$\frac{1}{2}\frac{1}{2 |
| berry | BYI 02960- | 5 | overall 0/2 0/2 0/2 0/2 0/2 0/2 0/2 0/2 0/2 0/2 | 62: 100 | 89 62 92 92 | 1 700 | 150 281 | \$2.7 0 |
| berry | BYI 02960- | | 0.20 4.0 | 62; 100 y 92; 96 | 62 920 | 1 700 | 130 2 81 | \$!.7 |
| berry | BYI 02960- | 2 2 1 2 5 | 0.20 4.0 | 62; 100 \$\frac{1}{2}\$ 92; 96 | 62 92.Q | ,0100 96 | % 1 | |
| berry | BYI 02960- DFEAR | 2 1 2 5 | 6.20 4.0 | 92; 26 | 920 | 96 | | |
| berry | BYI 02960- DFEAR | 2 | 4.0 . | 8907 | 2 | a () | 94 | |
| berry | BYI 02960- DFEAF | 2 | Over 11 | ~/, 4 | | ~8 | ₹ ∫' | 7. T |
| berry | BYI 02960- DFEAR | 2 , | U (Cyraii | | | \$100 | 88 4 | 17.1 |
| berry | DFEAF | | 0.01 | 100; 207 | 100 | 1070 | 1046 | |
| berry | a s | 2 | 0.40 | 970106 | 100 | 106 | 102 | |
| berry | | M | 28 | 13 JO | ×103 | Ø103 | | |
| berry | | \$\\ 5 \\ \phi_{\text{i}} | verall | | 97\$ | 107 | 10% | 4.1 |
| | QYI 02960 | d | 0.84 | 100 | | | | |
| 01 | | Q Ori | | 2 | 0104 g | 904 | , , , | |
| | | 1. | 2.0 | 103 | 103 | 1030 | Y | |
| | | 1 | overall | | 103 | 1601 | 103 | 1.5 |
| | DEA O | | a M2 | \$30 , | $\sqrt[3]{00}$ | \$100 01 | 103 | 1.3 |
| | DFA O | 1 | 00 20 % | N \ ((n) | 0 f& | 91 | | |
| , O | | | 1.20 | 91 0 | 9 j~ 85 | 85 | | |
| | | \n\n | 4.0 | 850 5 | © 85 | 100 | 92 | 8.2 |
| | DX 0200 | 1 . | o o o o | 4 X X | 97 | 97 | 92 | 8.2 |
| ž 40 | DFEAF | | 0.01 | 9/ 3/ 100 W | | | | |
| | | | 0.0 | | 102 | 102 | | |
| | | ~ I | \$.0 ° | | 107 | 107 | 100 | 4.0 |
| | | 3 | Överall | | 97 | 107 | 102 | 4.9 |
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IIA 6.3.1.5 Fruiting vegetables – tomato, incl. eggplant (solanacea)

BYI 02960 is to be registered in Europe for use in tomato. European residue data in tomato are therefore presented below to support the intended use. Use pattern (GAP) information, including the European "agricultural use" as well as the "home & garden use" to be supported is summarized in Table 6.3.1.5-1.

Table 6.3.1.5-1: Use patterns (GAPs) for the spray application of BYI (\$\frac{1}{2}\)60-containing formulations in/on tomato in European fields (southern residue regen) and green douses

| Description | F/G | No. of appls. | Appliedion rate PHIC per treatment per season (g a.s.Ma) (g a.s.Ma) (Lyra) (days) (days) |
|---------------------|----------------|---------------|--|
| "agricultural" use* | G | 2 | 112.5 |
| | F† | 1 | 112,5 112,5 112,5 n/2, 23 |
| "home & garden"** | F ⁺ | 2 | Q, 1,12/5 2 225 2 100-750 3 |

 ^{*} agricultural use based on an SL 200 formulation

In order to support the use of BYIO 2960 sets of GLP trials were conducted in southern European fields and in greenhouses in 2040 and 2011. In southern European field-grown is mato, BYI 02960 was applied twice as an SL formulation (BYI 02960 SL 200, condaining 200 g/V BYI 02960 a.s.), at 14-day intervals. For the use in governouses, BYI 02960 was applied as in the field, but at 10-day intervals. In both cases the envisaged PHI was 3 days, reflecting the planted agricultural use in the greenhouse, as well as the inconded corst case fight use.

Residue Levels of BYI @960 and its retabolites DIA and DFEAT were analyzed individually and summed to yield the salculated "total residue of BXI 02960". The most critical residue levels were observed in the graphhouse trials in which a highest total residue value (HR) of 0.50 mg/kg was determined. The STME in these trials was also the dighest for both sets, at 0.14 mg/kg.

The number of trials conducted or each se describe above (incl. information on geographical region and vegethion period) sumparized below in table 6.3.1.5-2.

Table 6.3.1.5-2: Over we of European resource trials conducted in tomato per geographical "residue region" appropriation point, including key results

| Use description (cf. table 3.1.59) | Reg © n | N V get. 2010 | o. of ria period 2011 | nls Σ | Residue (mg/ | | Report No. | Dossier ref.: IIA 6.3.1.5/ | | |
|------------------------------------|----------------|---------------------|-----------------------------|----------|-----------------|------|------------------|----------------------------------|--|--|
| trig in Europe & | | | | | | | | | | |
| "agriculty "I" use | G | 4 | 4 | 8 | 0.50 | 0.14 | 10-2190, 11-2085 | 03, 04 | | |
| "home & garden" | EU-S | 4 | 4 | 8 | 0.11 | 0.08 | 10-2186, 11-2087 | 01, 02 | | |

EU-S = southern EU field residue region, G = greenhouse

^{** &}quot;home & garden" uses with an SL 50 form Pation (available of the general public la retai Oile)

t uses in southern residue region (EU-S)

t core rate per meter plant foliage height. Testing in greenhouse based on a max. height 2 m, equating to ax. 223



Southern European residue region (field)

| Report: | KIIA 6.3.1.5/01, ; | 2012 | ~ | | Ô |
|----------------------------|--|------|---|-----|---|
| Title: | Determination of the residues of BYI BYI 02960 SL 200 in the field in Fran | | | ~ \ | |
| Report No. & Document No.: | 10-2186, dated September 6, 2012 M-438184-01-1 | Ĉ | | | |

| Report: | KIIA 6.3.1.5/02, 2012 | C |
|----------------------------|---|---|
| Title: | Determination of the residues of BY 1,02960 in/on to nato offer spring application of BYI 02960 SL 200 in the field in Spain, Italy, Powngal and Greece | |
| Report No. & Document No.: | 11-2087 dated September 17, 2012 | |

| Guikance working inscument 7029 M4/95 rev. 5 Q QUIS EPN OCSTP Guid Mine Nov 860 500. SUSP | Gt | uidelines (applies to both studies): | Directive 91/414/EVC, repelues in or on related products, food and feed |
|---|----|--------------------------------------|---|
| | | 7 | For Guildance working descument 7029 \$4/95 role 5 |
| PUS ELM OCSPP GuidMine NO 860 J500 SUPP | | | OYS FIRM OCSAN Guid Vine NOV 860, NOO SLAND |
| | | | |
| GLP (applies to both studies): | GI | LP (applies to both studies): | yes (certified laboratory); Deviations: none |

I. Wateri@s and Methods

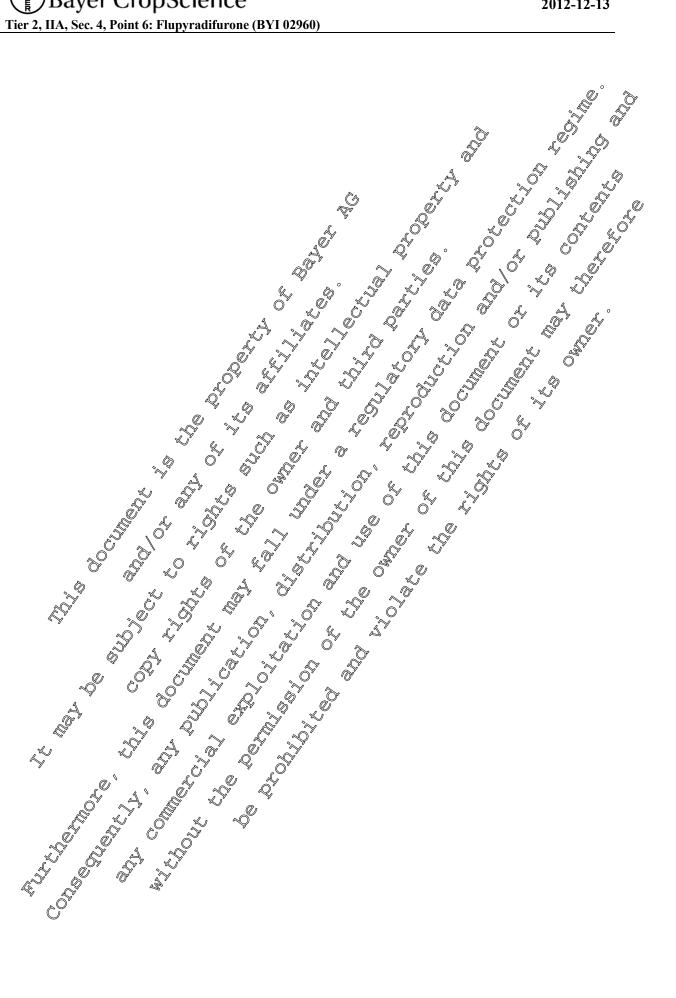
Eight field residue trial wer conducted in southern Europe, as follows

In 2010, 4 trials (Southern France, Italy, Spain and Portugal) were conducted to support the use of BYI 02960 SI 200 in Smate (1998). A 1999 at a nominal rate of 0.625 L/ha corresponding to 125 g/ha BYI 02960 a.s.; the water rate was 600-1000 L/ha collecting local practice in the trial regions. All treatments were made at the seveduled rates. The higher application rate used in 2010 was 11% higher than the rate to be registered, thus well within the FD's acceptance criteria for use pattern comparability.)

Four further treals were carried out in 2011 on Span, Italy, Portugal, and Greece, to complete the data package (\$\frac{1}{2}\text{Log} \text{Log} \text{L

Samples of to nato thit were taken immediately prior and subsequent to the final application, and at several intervals thereader (up to 70 or 14 days after treatment in the 2010 and 2011 trials, respectively). The envisaged HI was 3 days.

The sample were analysed for the parent compound and its metabolites DFA and DFEAF using methods 01304 (2010 trials; for method details, cf. KIIA 4.3/03) or 01212 (2011 trials; cf. KIIA 4.3/05). The respective LOQs for the 3 analytes were 0.01, 0.02, and 0.01 mg/kg (all in parent equivalents).





II. Findings

Validation of tomato fruit was done within method 01304 (2010 trials; for method details, cf. KIIA 4.3/03) or within method 01212 (2011 trials; cf. KIIA 4.3/05). During the conduct of the complete set of tomato studies in 2010-2011, concurrent recoveries of BYI 02960 and its method of DFEAF were obtained from samples of tomato fruit. This sample material is representative of all sample materials collected in these trials.

The recovery samples for parent and DFEAF were spiked at levels of 0.01 mg/kg and 0.10 mg/kg as well as 0.50 mg/kg for trials conducted in 2010, and 0 mg/kg for trials conducted in 2010 mg/kg for trials conducted in 2010 mg/kg for trials conducted in 2010, and 0 mg/kg for trials conducted in 2010 mg/kg for trials conducted in 2010, and 0 mg/kg for trials conducted in 2010, RSDs of the larger validations sets [n > 2] 4.2-10.9%, [n = 10]

Fortification levels for DFA were or 0.02 mg/kg, 0.95 mg/g, and 0.50 rog/kg (expressed in BYI 02960 equivalents) for trials conducted in 2010 and 0.02 mg/kg, 4.20 mg/kg, and 4.0 mg/kg (expressed in BYI 02960 equivalents) for trials conducted in 2011. Meantrecover is well all within acceptable ranges (88-96%, RSDs of the lawer valuations sets [60 2] 1.8-6.2% n=1.9).

Details of recovery data are shown in table 6.301.5-4. All trol data are summarised below in table 6.3.1.5-3a & b and in greater detail in the For 1 summary forms. (Residues of parent BYI 02960 as well as its metabolites DF and Do EAF are expressed in BYI 02960 equivalents. From these individual values, the "total residue of BYI 02960" was calculated as the sum of Grese three analytes, expressed in parent equivalents.)

On day 0, immediately to lowing the 2nd and final freatment, residue levels in tomato fruit were between 0.07 kg/kg and 0.17 mg/kg/median 0.15 mg/kg. By day 3 — the envisaged PHI — the levels were <0.04-0.11 mg/kg, with a median value of 5.08 mg/kg.

The analytical results (evealed that total recidue tevels often had not yet reached their highest levels at the nominal PHI (Pays). This was evident in the 2010 trial packages for other crops, although peak residue values for tomagnes were seen on day 3 in one trial swell. In order to ensure that the maximum relevant residue levels are captured, additional sampling was conducted 14 days after treatment in the 2011 program; in those scials, we highest residue levels were seen on day 7 (1 trial), or day 10 (20 trials).

Maximum residue levels any revan Camp of interval (≥3 days post-application) over the complete set of roll anged from <0.04-0.15 mg/kg (median 0.08 mg/kg).

Evaluation of regresentativity

As highest recourse levels were also seen in samples taken after the envisaged PHI of 3 days – on day 5 (tright 10-2166-04), day 7.2 11-2087-02), and on day 10 (11-2087-03 and -04) – the entire set of trials was re-collusted for its representativity.

In the 2010 package, "plateau behaviour" was evident in all four of the trials at PHI 3. Only in trial 10-2186-04 were residues on day 5 (0.08 mg/kg) higher than on day 3 (0.07 mg/kg). However, this increase is very small, and even within the scope of sampling or analytical variability; also, as mentioned, a plateau level appears to have been reached. Thus, taken in the context of all of the reals, this trial can also be seen as yielding representative results.

In 2011, "plateau" behaviour was evident in all four of the trials, as seen in the samples token from day 3 onwards. In trials 11-2087-01, -02, and -04, a very mino increase in visidues was such over time from 0.083 mg/kg on day 3 to 0.096 mg/kg on day 10, from 0.089 mg/kg on day 3 to 0.095 mg/kg on day 7, and from 0.064 mg/kg on day 3 to 0.067 mg/kg on day 10, respectively. These "increases are very small; they are also within the scope of analytical error or variability caused by sampling. Thus, taken in the context of all of the trials, these trials can also be seen as vielding representative results.

Thus the trials are considered to be valid and representative of the use described.

III. Conclusions Ctomato, southern European residue region)

In order to support the use in the EU of BYI 02960 in tomale, 8 vapid trials were conducted in the southern European residue region in the years 2010-2011. BYI 02960 was applied twice as an SL 200 formulation at an active substance rate of 112.5 g/ha in 2011, both of which support the intended use rate (112.5 g/ha). The application intervals were 14 days. All applications were at the required rate, and all trials were conducted according to GLP.

Samples were aken in medicely after the 2nd application and asseveral intervals thereafter, including the envisaged PHI of 3 days. They were analyzed for the relevant residues of BYI 02960, comprising the parent compound and its rectabolics DFA and DFEAR. The residues of all three analytes were summed to yield a carculated total residue of BYI 02960". The results of the trials presented above demonstrate that:

- total residues of 10290 in small fruit declined somewhat between the final application and the nominal PHI, from evel of 0.020.17 og/kg of day 0 after the final treatment to <0.04-0.11 og/kg on day 37 The espective median values were 0.13 mg/kg and 0.08 mg/kg, respectively.
- analytical results revealed that total residuatevels often had not yet reached their highest levels at the nominal CHI. Howevely, these increases" are very small; they are also within the scope of variability ausself by sampling, biological, and/or analytical aspects.
- despice the drayed attainment of the maximum residue levels, the trials reported here are considered to yield representative results suitable for MRL evaluation.
- peak esidue levels at any relevant sampling interval (≥3 days post-application) ranged from <0.04-
 0.11 mg/kg (median 0.08 mg/kg).



Table 6.3.1.5-3a: Application scenario in residue trials conducted in/on tomato after spraying with BYI 02960 SL 200 in the field (southern EU residue region)

| Study No. | | | | Application | <u> </u> | | | Ö |
|---------------------------------------|-------------------|-----------|---------------------------------------|---------------------------|---------------------|------------|------------|----|
| (Trial No.) | | | | | | | | 1 |
| Country Location | Crop | FL | | kg/ha | lzg/hJ© | GS 4 | PHI (dass) | |
| Location | Variety | FL | No. | (a.s.) | kg/h | OD A | (days)" | |
| Region | | | | (and) | 4 | | | |
| Year | | | , | ⊳ _A | \(\sigma'\) | `~\\ | | |
| 10-2186 | tomato | 200 SL | 2 | 0.125 | 0.0208 | Ö87 | | L. |
| (10-2186-01) | Perfect Peel | | 4 | ۄٞ | , | | |)* |
| southern France | (Hybrid | | .4©" | Q Q | |) ~~ | | |
| | variety) | | | ~ . | | | | |
| EU-S | | | ~ | | | | , S | |
| 2010 | | | | | | | | |
| 10-2186 | tomato | 200 SL | | 0.125 0.105 4 0.125 | 0.0208 | | 3 4 | |
| (10-2186-02) | Missouri | | | | | | | |
| Italy | (Multiple | | | | | | | |
| | use variety) | Q (Y | | | | | | |
| DII C | 4 | | 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | | | | | |
| EU-S 2010 | Q. | \$ 200 SI | | | | | | |
| 10-2186 | tomate C | %200 SI | - O | 0.125 | 0.01250 |) <u>(</u> | 3 | |
| (10-2186-03) | Malphea & | √200 SL | 1. | | Ø ^{0.0123} | (O) | 3 | |
| Spain | (Temata de | . ~ (| 7/n° 0 | | | , Ö | | |
| | industria) | | | | | 7 | | |
| | | | | | | | | |
| EU-S | | , Ø , | \$' .\{\} | |) | | | |
| 2010 | | | | | <i>Q</i> | | 2 | |
| 10-2186 (10-2186-04) Portugal | tomato. | 200 \$1, | | \$ 0.12 © | ©0179 | 88 | 3 | |
| Portugal P | H9144 Industry | | | | No | | | |
| T OTTUGUI | | 4 | | | | | | |
| EU-S 2010 | Industry | 200 SL | | 5 0.12 V | | | | |
| ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ | | | | | | | | |
| EU-S | | |)" & | A " | | | | |
| 2010 | | | | _\ | | | | |

FL = formulation
EU-S = souther Ocurope to residue region

Con Continued on next page...



Table 6.3.1.5-3a (cont'd.): Application scenario in residue trials conducted in/on **tomato** after spraying with BYI 02960 SL 200 in field (southern EU residue region)

| Study No. | | | | Application | 1 | | |
|--|--|---------------|--|---|-----------------|-------------------|---------------------------------------|
| (Trial No.) | | | | | | | |
| Country | C | | | | * | , | |
| Location | Crop | \mathbf{FL} | 3.7 | kg/ha | kg/h | GS & | |
| | Variety | | No. | (a.s.) | kg/hk (a.s.) | | PHI (dass) |
| Region | | | | (4131) | 21 | | |
| Year | | | | | \$\tag{\psi} | \ \sigma_{\sigma} | |
| 11-2087 | | 200 GI | 2 - | 0.112 | 0,00161 | ©72 0 5 | |
| | tomato | 200 SL | 2 | 0.113 | 0.0161 | | |
| (11-2087-01) | Malpica; | | L, | ي | * | | |
| Spain | Tomate de industria | | 40° | | |) | [O . |
| 0 | | | | * | | 4 | |
| EU-S | | | <i>Q</i> | ~ · · · · · · · · · · · · · · · · · · · | | | |
| 2011 | | | l & | | | | |
| 11-2087 | tomato | 200 SIO | W. | 0.1134 | | | 4 3 |
| (11-2087-02) | Discovery | 4 | | | 8 | | |
| Italy | F1; | | | | | | \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ |
| | Processing | ~ ~ | v ~~ | | | | 3 |
| EU-S | tomato | | \ \(\lambda \) | | | | O |
| 2011 | | K 47 | | | | | j |
| 11-2087 | | 200 SIO | ************************************** | 5 13 O | 0.0025 | 85.7 | 2 |
| | tomato Q | 200 SL | 20 | Dr 13 | 0.025 | Ö 85 W | 3 |
| (11-2087-03) | H-9144; Industrial | | Ş | | | P &. | |
| Portugal | Industra | | "O" | ~ "Ö | | | |
| | | | \$ 0 | , 4 3 | | | |
| | | | | | | K. | |
| | | | | | | * | |
| EU-S | | | | | | 1 | |
| 2011 | | 7 O1 | | , | | | |
| 11-2087 | towato 5 302 Heintz, Hat growing | 290 SL | 200 | Ø.113 (| 00188 | 87 | 3 |
| (11-2087-04) | towato 9 902 Heintz, lat growing | | | | | | |
| Greece | allat growing | | | | W' | | |
| A 60 | var. Oybrid | 9 & | | | 70 | | |
| Ĉ | | 1 | | | 1 | | |
| EU-S | | | | | | | |
| 2011 | | | | | | | |
| Z011 () | | | , (n) | | | | |
| FL = formulation | | grow | stage (**) | SCH- co de) at las | st treatment | | |
| EU-S = southern Eur | pean residue region | | ~ | | | | |
| O n | | | | | | | |
| | | | `\`\`\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | 9 | | | |
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| 79 P | 1 ~ | | | | | | |
| | | | | | | | |
| | Q' <u>"</u> Z | | | | | | |
| 2011 FL = formulation EU-S = southern Euro | topato 3002 Heintz Hat growing var. Oybrid bean residue regen | | | | | | |
| r P | | | | | | | |
| | | | | | | | |
| | Fean residue region | | | | | | |
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Table 6.3.1.5-3b: Results of residue trials conducted in/on **tomato** after spraying with BYI 02960 SL 200 in the field (southern EU residue region)

| Study No. | 1 | 60 | | | | |
|---|------------------|------------------------|--|--|---|--------------------------------------|
| (Trial No.) Country GLP | Portion analyzed | DALT (days) | BYI 02960 | DFA | BYI 02960- DFEA | total resoue of BYI 02000 car |
| 10-2186 (10-2186-01) southern France | fruit | 0* 0 1 3 5 | <0.01 0.04 <0.01 <0.01 <0.01 | <0.02 <0.02 <0.02 <0.02 <0.02 | <0.01 0.01 0.01 0.01 0.01 0.01 | 0.04 0.00 0.04 0.04 0.04 |
| GLP: yes 10-2186 (10-2186-02) | fruit | 7 0* 0 | <0.01 0.03 0.06 | <0.02 <0.02 <0.02 | 0.01 | Q < 0.06 Q 0.06 Q 0.09 |
| Italy GLP: yes | | 1 3 5 7 | 0.00 0.03 0.05 0.03 0.03 | <0.02 <0.02 <0.02 <0.02 <0.02 <0.02 | 0.01 901 901 90.01 0.01 0.03 0.04 | 0.06 0.08 0.08 |
| 10-2186 (10-2186-03) Spain | fruit | 0* 0 1 3 | 0.04 0.11 0.10 0.08 | 0.02 0 < 0.02 0 < 0.02 0 < 0.02 | \$ | 0.075 0.13 0.13 |
| GLP: yes 10-2186 (10-2186-04) | fruit | 4 7 0*\$ | © 0.05 0.04 | 0.02 | <0.01 <0.01 <0.00 <0.00 | 0.08 0.11 0.07 0.11 |
| Portugal GLP: yes | * | | 0.05 | 0.02 0.02 0.02 0.02 0.00 | 0.01 0.01 0.01 0.02 | 0.10 0.07 0.08 0.08 |
| 11-2087 (1-2087-01) Spain | fru | 0* 0 % | 0.053 | 0.02 0.02 0.02 0.020 | <0.01 <0.01 <0.01 <0.01 | 0.13 0.10 0.083 0.084 |
| GLP: yes | fruit & | 14 | 0.07 | 0.029 | <0.01 <0.01 <0.01 <0.01 | 0.096 0.086 |
| (11-2087) (11-2087) Italy | fruit | | 0.036 0.14 0.062 | 0.0203 | <0.01 <0.01 <0.01 | 0.066 0.17 0.089 0.095 |
| GLP: yes | | 145 | 0.048 | 0.02 50.02 | <0.01 <0.01 <0.01 | 0.083 0.091 0.047 |
| (11-2087-03) Portugal GLP; | | 3 7 150 | 0.023 | <0.02 <0.02 <0.02 | <0.01 <0.01 <0.01 <0.01 | 0.17 0.063 0.057 0.055 |
| 11-2087 (11-2087-04) | fsuit | 0* | 0.026 0.120 0.034 | <0.02 <0.02 <0.02 <0.02 | <0.01 <0.01 <0.01 <0.01 | 0.054 0.056 0.15 0.064 |
| Greece GLP: yes | | 910 5 140 | 0.034 0.032 0.032 0.021 | <0.02 <0.02 0.025 0.026 | <0.01 <0.01 <0.01 <0.01 | 0.064 0.053 0.067 0.057 |

DALT = days after last treatment

* prico to last treatment



Table 6.3.1.5-4: Recovery data for BYI 02960 in tomato

| Study No. Trial No. | | Portion | a.s./ | | Fortifi- cation | I | Recov | ery (% | (o) | Q° |
|---------------------|----------------|----------|----------------|-------------------|--------------------|---|-------------|-------------|--|-------------|
| GLP | Crop | analysed | metabolite | n | level | Individual | | Max | Mean | RSD |
| Year 10-2186 | tomato | fruit | BYI 02960 | 10 | (mg/kg) 0.01 | recoveries 93; 94; 94; 95; | \$ 93 | 104 | 98 | |
| (10-2186-01), | | | | | | 97; 98; 98; 102; 104; 1,64 | y · · | | S Z | |
| to (10-2186-04) | | | | 3 | 000 | 83; 91; 94 | 83 | | ************************************** | 5. Q |
| | | | | 3 | 8 .50 | 90; 98,08 | 90 | ©98 | \$95 | \$4.8 ↓ |
| GLP: yes 2010 | | | DEA | 16 | overall | | 8 | 104 | Q 96 Õ | 5.7 |
| | | | DFA | 07 ⁾⁷⁷ | 0.02 | 87; 88; 9 6 , 94; 96; 101, 01 | Q87 | 184 | 94 Q | |
| | | | & ' | 3 8 | °0.05 | 94; 5, 97 | 94 | 97 | 95 4 | 1.6 |
| | | | <u> </u> | 25 7 | 0.86 | 83085; 8590; Q: 92 | ® 3 | 9C | 884 | 4.00 |
| | | | | 16 | verall | | 83% | | , 92 | \$5.7 |
| | | | PEAF | *0 | 0.0 | 73 81; 82, 84; | | 950 | 860 | 7.3 |
| | | | | | | 90, 89, 35, 90, 91; 95 | | Ï | | |
| | | @) | | 3 | 0.100 | 83; \$2; 93 | 830 | 93 | 89 | 6.2 |
| | | Ž, | | 10 | 0.50 | 85,92; 107 | \(\varphi\) | 167 ~107 | 95 88 | 10.9 8.4 |
| 11-2087 | tomato | fruit O | BX 02960 | 2 16 | erall 0.01 | 98; 102 | 95 | 102 | 100 | 8.4 |
| | &) | fruit | B (2960) | Ÿ | 0.0 | | Q | 106 | | |
| (11-2087-01), to | | | | 1 | \$\frac{1}{2}.0 | 105 0 | 105 | 105 | | |
| (11-2087-04) | | | | 4 | overa | | 98 | 106 | 103 | 3.5 |
| GLP: yes 2011 | | | DFA S | 7 | 0.02 | 165; 91 6 | 91 84 | 100 84 | 96 | |
| , Ø | O ^y | | A | 1 6 | 4.0 | 97 | 97 | 97 | | |
| | گ | | | Q. | overall | | 84 | 100 | 93 | 7.6 |
| 4 Y | | | DFF F | 2 | 0.01 | 9 6; 99 | 96 | 99 | 98 | |
| | | | | 10 | 0.10 | 101 114 | 101 | 101 | | |
| | | | | 5 4 . | overall | 114 | 114 96 | 114 114 | 103 | 7.7 |
| | <u> </u> | | | | overall | | 90 | 114 | 103 | 7.7 |
| | | | | | | | | | | |
| 4 | ≪y″ ′ | | | | | | | | | |
| A. | . O . | | | | | | | | | |
| | | | | | | | | | | |
| | | | ¥ | | | | | | | |
| | | Ş | | | | | | | | |
| | Q, 4 | | | | | | | | | |
| | | | | | | | | | | |
|) | | | | | | | | | | |



<u>Greenhouse</u>

| Report: | KIIA 6.3.1.5/03, ; | 2012 | |
|----------------------------|---|--|------------|
| Title: | Determination of the residues of BYI 02960 in/on tor BYI 02960 SL 200 in the greenhouse in Germany, the Belgium | mato after spray application e Netherland France (North | of the and |
| Report No. & Document No.: | 10-2190, dated March 1, 2012 M-426300-01-1 | | |

| Report: | KIIA 6.3.1.5/04, | 2012 | |
|----------------------------|---|---|--------------------------|
| Title: | Determination of the residues of BY1 0296 application of BYI 02960 SL 200 of the gr Spain | 60 in/on tonato and choreenhouse in Garanany, | Qe Neto rlands Italy and |
| Report No. & Document No.: | 11-2085, dated March 3, 201 M-427056-01-1 | | |

| Guidelines (applies to both studies): | Directive 1/414 GEC, residues of or on freated Groduct food and feed SC guidance working of cumpy 7029 01/95 res. 5 |
|---------------------------------------|---|
| GLP (applies to both studies): | yes (Ortified laboratory); Deviation none |

I. Materials and Methods

Eight residue trials were condered in the granhouse, as follows

In 2010, 4 trials (German), the verner wids, northern Prance and Belgium were conducted to support the use of BYI 6 960 \$\frac{1}{2}\$ 200 in tomato (\$\frac{1}{2}\$ & \$\frac{1}{2}\$ & \$\frac{1}

Four further trials were carefed out in 2017, in 65 mans, the Netherlands, Italy, and Spain, to complete the data package (\$\frac{1}{2}\text{0.12}\text{0.14}\text{0.63}\text{0.1.5}\text{0.4}\text{)}. The basic application parameters were similar to those in 2019, except that applications were made at a nominal rate of 0.563 L/(ha×m), corresponding to 112.5 g/(0.4×m) SYI 0.560 as. Again, all treatments were made at the scheduled rates.

Samples of mate truit fore taken impediately prior and subsequent to the final application, and at several intervals hereafter (up to 7 days after treatment in 2010 trials and up to 14 days in 2011 trials). The episage of HI vas 3 days.

The samples were analyzed for the parent compound and its metabolites DFA and DFEAF using methods 01304 (2010 trials; for method details, cf. KIIA 4.3/03) or 01212 (2011 trials; cf. KIIA 4.3/05). The respective LOQs for the 3 analytes were 0.01, 0.02, and 0.01 mg/kg (all in parent equivalents).



II. Findings

Validation of tomato fruit was done within method 01304 (2010 trials; for method details, cf. KIIA 4.3/03) or within method 01212 (2011 trials; cf. KIIA 4.3/05). Concurrent recoveries of BYI 02,000 and its metabolites DFA and DFEAF were obtained from samples of tomato fruit. This sample material is representative of all sample materials collected in these trials.

The recovery samples for parent and DFEAF were spiked levels of 0.50 mg/kg and 10 mg/kg, as well as 0.50 mg/kg or 1.0 mg/kg (expressed in BYI 02960 equivalents). Mean recoveries were all within acceptable ranges (86-95%, RSDs of the larges validations was [n > 2] 4.2 0.9%, =1-70

Fortification levels for DFA were or 0.02 mg/kg, 0.05 mg/kg, and 0.50 mg/kg (2010 study) as well as 0.02 mg/kg, 0.20 mg/kg, and 1.0 mg/kg (2011 study) expressed in 0.71 0.760 equivalents). Mean re-coveries were all within acceptable ranges (88-35%, PaDs of the larger validation sets [6-2] 1 4.6.2%, n=1-7).

Details of recovery data are shown in Table 5.3.1.5-5. All rial data are summassed below in Table 6.3.1.5-5a & b and in greater detail in the Tier I summary forces. (Residue of parent BY 0.02960 as well as its metabolites DFA and DFEAP are expressed in BV 0.02960 equivalent.) From these individual values, the "total residue of BY 0.02960" was calculated as the sum of these three analytes, expressed in parent equivalents.)

On day 0, immediately following the 2nd and final treatment, revidue Evels in fomato fruit were between 0.07 and 0.77 mg/kg (mo) an 0.97 mg/kg). Fragley the envisaged PHI — the levels were 0.08-0.37 mg/kg, with a rectian value of 0.13 mg/kg.

The analytical results revealed the total residue levels often had not be reached their highest levels at the nominal PHI (3 days). This was already evidencen the 2010 trials, in which peak residue values were seen on day 5 (2 trials), or day 7 (1 trial), the final day of sampling. In order to capture the maximum relevant esidue levels additional sampling was conducted up to 14 days after treatment in the 2011 program, in those trials, the dighest residue levels were seen on day 3-4 (3 trials), or day 14 (1 trial).

Maximum residue levels at any relevant sany ling overval (\geq 3 days post-application) over the complete set of trials ranged from 209-000 mg/kg (median 0.14 mg/kg).

Evaluation of epresentatively.

As highest residual evels were seen on the final sampling interval of two trials (10-2190-02, day 7; and 11-208-04, day 4), the entire set of trials was re-evaluated for its representativity.

In the 2014 package, residues essentially showed "plateau behaviour", with residues remaining fairly constant from the PHI to the final sampling date (day 3 to day 7). Even in trial 10-2190-02, in which residues peaked on the final day of sampling (day 7), there was only a very minor increase in residues over time, from 0.13 mg/kg on day 3 to 0.15 mg/kg on day 7. These "increases" are very small, with



the difference per sampling interval of only 0.01 mg/kg, and also within the scope of analytical error or variability caused by sampling.

In 2011, trials 11-2085-01 to -03 showed slightly decreasing behaviour or at least "plateau" levels starting at the PHI. In trial 11-2085-04, there was an continuous increase in resources over time from 0.24 mg/kg on day 3 to 0.35 mg/kg on day 6 to 0.45 mg/kg on day 10 and to 0.50 mg/kg on day 14. Between day 3 and day 6 as well as days 6 and 10, there was an increase over time of 0.10 mg/kg, respectively, while between days 10 and 14 there was only by increase of the sidues of 0.05 mg/kg. However, 0.50 mg/kg found at the last sampling day is the highest residue value found in any of these trials. It will "drive" the MRL (see KIIA-8.7.2), and thus must be considered carefully during MRL-setting.

III. Conclusions (tamato, green wuse)

In order to support the use in the EU of YI 02060 in comato, 8 valor trials were conducted in the greenhouse in the years 2010-2011. BYI 02060 was applied twice as an YL 200 formulation at an active substance rate of 125 g/(ha in) per freatment in 2010 and 112. G/(ha in) per freatment in 2011, both of which support the intended user ate (1) 2.5 g/(ba×m). The application in orvals were approx. 10 days. All applications were at the required rates, and all trials were conducted according to GLP.

Samples were taken immediately after the 2nd application and at several interval thereafter, including the envisaged PHI of Mays. They were analyzed or the clevast residues of BVI 02960, comprising the parent compound and its metabolites of A and DFLAF. The residues of all three analytes were summed to yield a calculated "total residue of BVI 02960". The residues of all three analytes were demonstrate that

- total residues of BYL 2960 temain of fairly constant in temate fruit between the final application and be nominal PLO, from evels of 0.07-0.37 Gg/kg on day 9 after the final treatment to 0.08-0.37 mg/kg on day 3. The respective median values were 0.17 and 0.13 mg/kg, respectively.
- analytical results revealed that to di resione levels often had not yet reached their highest levels at the nominal PHI.
- peak residue levels at any relevant sampling interval (≥3 days post-application) ranged from 0.09 0
- despite the relayed attainment of the maximum residue levels, the trials reported here are considered to word representative results suitable for MRL evaluation. (Care must be taken during MRI calculation to evaluate the effect of the HR of 0.50 mg/kg on the MRL proposal.)



Table 6.3.1.5-5a: Application scenario in residue trials conducted in/on tomato after spraying with BYI 02960 SL 200 in the greenhouse

| Study No. (Trial No.) | | | | Application | I | | |
|---------------------------------|-----------------|-----------|------------|--|----------|------------------|----------|
| Country | | | | | | | |
| Location | Crop | FL | | les/les | | GS & | Ø PHI∂S |
| Location | Variety | FL | No. | kg/ha (a.s.) | Kg/AJ/ | GS & | (days) |
| Region | | | | (a.s.) | (a.s.) | Ş | |
| Year | | | | | | | |
| 10-2190 | tomato | 200 SL | 2 | 0.200 | 0.0167 | Č82 Š | 7 30° |
| (10-2190-01) | Albis | 200 52 | _ | (0.125 kg/[ha×ns]) | 0.0107 | | |
| Germany | | | | | | Y Q | |
| | | | 4 | | . 4 | d. | (C) |
| Greenhouse | | | 00" | \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | ? | |) Ö |
| 2010 | | | | | .0 | | |
| 10-2190 | tomato | 200 SL | 2 0 | 0 2500 | 0.0167 | b' '// | 3 |
| (10-2190-02) | Doloress | 200 520 | | (0.19 kg/[kg/m]) | 5 | | A |
| Netherlands | | | ~ | | | | |
| | | | Y | | °°° | | |
| | | | | f ~~ ~0, | | | |
| _ | | 64 47 | | | Y Z | Q ^y A | <u> </u> |
| Greenhouse | | ¥ | | | | J V | 1 |
| 2010 | | | \$ | | | | |
| 10-2190 | tomate | 200 SI. ° | 20 | 0.158 kg/[ha×m]) 0.188 (0.125 kg/[ha×m]) | 0.0160 | | 3 |
| (10-2190-03) | 2. 8 | 200 50 | 2 0 | (0.125 kg/[ha×m]) | 0.010 | O ⁹ | 3 |
| France | Cristal (| | W) | | | Ö | |
| | ogsme . | | | | | ¥ · | |
| | Stappe | | | | | ĺ | |
| Greenhouse | å å z | V a. | ~ | | | | |
| (// | | | <i>S</i> ' | | ~ | | |
| 10 2100 | at mate a // | 200 CI % | 2 % | 0.188 | 0167 | 86 | 3 |
| (10-2190-04) | Madison | 200 5 | 2% | (0.125 kg/[63×m])× | 0.0107 | 80 | 3 |
| Belgium O | Madison Madison | | | | | | |
| | | 3 | | | | | |
| | | | | | | | |
| Greenbause | | | | | | | |
| 2010 | | | | (0.125 kg/[0.1×m])* | | | |
| I – formulation | | | ¥1 | (BBC) code) at last t | | | |
| L – Iormulation | | 203 – gty | rın stage | (BBC Scode) at last t | reatment | | |
| <i>O1</i> . | | Ò Ö | | Ö. | | | |
| ~\$~ (| | | | * | Con | tinued on ne | ext nage |
| 4 | O' 29' | | | Ü | Com | | om puse |
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| | * . * ? * | | | | | | |
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| | ~ | | | | | | |
| | | | | | | | |
| Greenhave 2010 L = formulation | | | | | | | |



Table 6.3.1.5-5a (cont'd.):Application scenario in residue trials conducted in/on tomato after spraying with BYI 02960 SL 200 in the greenhouse

| G. I M | T T | I | l | | | I | 0, | |
|-----------------------|---|--------------------|------------------|--|-----------------|--|--|----------------|
| Study No. | | | | Application | 1 | | | |
| (Trial No.) | | | | | | | | |
| Country | Crop | EX | | | <u>~</u> | CC . | © PHIA | |
| Location | Variety | FL | No. | kg/ha | kg/kg (a.s.) | GS 4 | PHIO (days) | |
| Destan | • | | | (a.s.) | (a.s.) | Q | | ₽ ₀ |
| Region | | | | | . / - / | (()) | | Q) I |
| Year | 4 4 - | 200 GF | _ | | 7 0 01 70 | \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ | | a |
| 11-2085 | tomato Mikano | 200 SL | 2 | 0.525 | 0.0150 | | | 4 |
| (11-2085-01) | Mikano | | | 10.113 kg/[na×ig/s | , | \$ 88 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ | | |
| Germany | | | _1 [©] | (0.113 kg/[ha×ns]) | | | Ö , | ,* |
| | | | | | | . 0 | | |
| Greenhouse | | | 40 | | ~ " | | ~\$\tag{\tag{\tag{\tag{\tag{\tag{\tag{ | |
| 2011 | | <u>&</u> | | | W 4 | | W. | |
| 11-2085 | tomato | 200 SL | * | 0.113 kg/[ha×y] | 10° 0150 | % | 3 4 | |
| (11-2085-02) | Komeet | 200 aL | ~ ~ | 0.200 0 (1) 13 kg/[ha×m] | 0.0130 | 083 | | |
| Netherlands | Tomato | ~ ~ | 7 | | | | Z. | |
| recticitatios | Tomato | | , «(| | | | | |
| | | | . Q | | | Q' 7 | | |
| | 4 | | ~ | | Š | S . I | , | |
| Greenhouse | ~ | , Q | þ. | | | | | |
| 2011 | | | Ô | | 0 8 | | | |
| 11-2085 | tomato, & | 20051 | A7 | 0.225 | 0.0850 | 81 | 3 | |
| (11-2085-03) | cheary O | . D | Ű | (0.113 kg/[ha×nQ) | | | 3 | |
| Italy | | \ \Q^\ | | | | Y | | |
| | A Comotow | | \ \tag{\partial} | | | | | |
| | Tomato | | Ş | | L'Y | | | |
| | | | | | <i>a</i> , | | | |
| Greenhouse | 0, 22, | | | | | | | |
| Greenhouse 2011 | ¥ | | 44 | | J [*] | | | |
| 11-2085 | tonzaro, | 200 SL . | | Q225 O , O | 0.0150 | 83 | 3 | |
| (11-2085-04) | cherry | 1 4 8 | y | 00.113 kg/[haxm]) | | | | |
| Spain Spain | Juindo | | Q. | | | | | |
| | tongaro, cherry fruind Tomas cherry | BCIQode) at | ° 0, | 0.25 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | | | | |
| | cherry ~ | " O _x 2 | Ů, | & A" | | | | |
| Greenhouse | | | | P | | | | |
| Greenhouse | chetry | | Ş | Ş | | | | |
| 2011 © | | | ~~ O | , O | | | | |
| FI = formulation GS = | gradula stage | DCI/Ocda) of | Mart tra | O ant | | | | |

FL = formulation GS = growth stage (BBC) Gode) a Plast tree ment



Table 6.3.1.5-5b: Results of residue trials conducted in/on **tomato** after spraying with BYI 02960 SL 200 in the greenhouse

| Study No. | | | Residues (mg/kg) expressed as BYI 02960 | | | | | | | | |
|------------------------|------------------|---------------------------------------|---|---|---|--------------------------------|--|--|--|--|--|
| (Trial No.) Country | Portion analyzed | DALT (days) | BYI 02960 | DFA | BYI 02960- DFE | total reduce of BYI 02960 cash | | | | | |
| GLP 10-2190 | C : | 0* | 0.02 | 10.02 | 20001 | | | | | | |
| (10-2190-01) | fruit | 0* 0 | 0.03 0.11 | <0.02 <0.02 | \$\frac{1}{2} \text{0.01} | | | | | | |
| Germany | | 1 | 0.06 | <22 | 0.01 | 209 | | | | | |
| Gumany | | 3 | 0.06 | <0.02 | Q <0.01 | 30.09 | | | | | |
| GLP: yes | | 5 7 | 0.06 0.06 | \$0.02 \$\left(-0.02)\$ | <0.01 | | | | | | |
| 10-2190 | fruit | 0* | 0.04 | © <0.02 ~ | <0.01 | 3 .07 | | | | | |
| (10-2190-02) | | 0 | 0.14 | <0.02 | <0.01 | \$\int_0.17\$\footnote{\pi}\$ | | | | | |
| Netherlands | | 1 3 | 0.11 & 0.10 O | \$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | 9001 9001 | 0.14 | | | | | |
| GLP: yes | | 5 7 | 0.11 | 002 002 002 | 0.01 4 <0.05 | 9.15 P | | | | | |
| 10-2190 | fruit | 0* | 673 n. S | Ø-0.02 × | √ 20 001 € | | | | | | |
| (10-2190-03) | | 0 | \$1.08 \(\sqrt{1} \) | | 0.01 | 0.14 | | | | | |
| northern France | | | 0.05 | <0.02 | 0.00 × 5 | \$ \Q_{0.08}^{11} | | | | | |
| France | | 3 5 | 088 Q V \$408 Q | ©0.02 6 | | > 0.11 | | | | | |
| GLP: yes | | 7 @ | | \$ < 0.020° \$ | Ø.01 Ø.01 | 0.11 | | | | | |
| 10-2190 | fruit | 0 | (0.02 A | √ <0.02 √ · | <0.00 | 0.05 | | | | | |
| (10-2190-04) | | | 0.00 | <0.02 \$<0.02 | | 0.07 0.07 | | | | | |
| Belgium | .,, | 3 | 0.05 | Q < 0.00 Q | 0.01 | 0.08 | | | | | |
| GLP: yes | | 57 | \$\int 0.07 \$\int 0.0\$\int 5 | 0.9/2 7.02 0.02 | 0.0 × | 0.10 0.07 | | | | | |
| 11-2085 | front | 0*0* | ₩5 ~ | 0.020 | 2 .01 | 0.18 | | | | | |
| (11-2085-01) | 10° 20 | \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | 0.29 × 0.27 0 × | <0.02 | <0.01 <0.01 | 0.32 0.30 | | | | | |
| Germany | | 4 | 0.200 | 0.02 | © <0.01 | 0.28 | | | | | |
| GLP: yes | | \$\bigsim \frac{10}{14} \times | 0.25 | 0.02 | <0.01 <0.01 | 0.25 0.18 | | | | | |
| 11-2082 | fruit | *Q**) | 0.045 | O < 0.02 | < 0.01 | 0.075 | | | | | |
| (11-2085-02) | 3 | | Q. Q. Q. Q. | \$\square\$0.02 \times^1 | <0.01 <0.01 | 0.17 0.13 | | | | | |
| Netherlands | | A 7 & | 2.078 V | <0.0 | <0.01 | 0.13 | | | | | |
| | | 100 | 0.0857 0.0550 0.0530 | <0.02 <0.02 @<0.02 | <0.01 <0.01 | 0.11 0.086 | | | | | |
| 11-2085 | fruit | 00* ~ | | Ø<0.02 | <0.01 | 0.16 | | | | | |
| (11-2085-6) | , Q | | Ø 34 | <0.02 > <0.02 | <0.01 <0.01 | 0.37 0.37 | | | | | |
| Italy 🔻 | | <i>3</i> ∜ | 0.22 | 0.027 | <0.01 | 0.37 | | | | | |
| GLP: yes | ∜ ″ | 00 | 7 007 07 | 0.034 0.054 | <0.01 0.010 | 0.32 0.32 | | | | | |
| 11-2085 | fruit | | 0.25 0.06Q 0.24 0.27 0.32 0.36 | 0.022 | < 0.01 | 0.099 | | | | | |
| (11-2085-04) (| | | 0.24 | $0.026 \\ 0.037$ | <0.01 0.015 | 0.27 0.24 | | | | | |
| Spain | | 6 5 | 0.27 | 0.063 | 0.013 | 0.24 | | | | | |
| GLP: yes | | 100 | 0.32 | 0.10 | 0.026 | 0.45 | | | | | |
| GLI . yys | \$\frac{1}{2} | | 0.36 | 0.11 | 0.029 | 0.50 | | | | | |

DALD= day offer last@eatment*
* prior to lactureatment



Table 6.3.1.5-6: Recovery data for BYI 02960 in **tomato**

| Study No. Trial No. | | | | | Fortifi- | | Recov | ery (%) | | Ø1° |
|--|--------|------------|---------------------|------------------|------------------|--|-----------------------------|-------------------------------------|---|--------------|
| i mai No. | Crop | Portion | a.s./ | n | cation | | | | | |
| GLP Year | Стор | analysed | metabolite | | level (mg/kg) | Individual recoveries | Min 2 | » Max | Mea | RSD |
| 10-2190 | tomato | fruit | BYI 02960 | 10 | 0.01 | 93; 94; 94; 95; 97; 98; | 93 | 104 | \$98 | ¥.2 |
| (10-2190-01), | | | | | Č | 98; 102; 104; 4 | | % %j | | |
| to (10-2190-04) | | | | 3 | 0.10 | 104 83; 91; 91 | 83 | \(\mathcal{O}\) | | |
| | | | | 3 | 0.10 Ø0 | 90; 98; | 。90 。 | 0 98 | \$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | 1.8 m |
| GLP: yes 2010 | | | | 16 | overall | | | 100 |) % | 507 |
| | | | DFA | | 0.020 | 87.08; 90; 9 94, 96; 101; | 707 | | ~~~94 ~~~~~ | 3 6.2 |
| | | | | 3 % | 0.05 | 94: 95, 97. |)* 94(\)* | 99 | | |
| | | | | 6 | 0.53 | 87, 85; 85 90; 91; 92 | 83 83 | \$\frac{1}{2}\frac{1}{2}\frac{1}{2} | ₹ 88 ° | 4.0 |
| | | | | 16% | | | 835 | 100 | 9 | 5.7 |
| | | | PYI 02960 -DFFAF | 16 3 T | 0.6 | 73 81; 820 64, 86; 54, 89; 90, 54; 95, | 3 |) | °~86 | 7.3 |
| | | * 0 | | 3 6 | v 0.100 | 83; 92; 93 | ~ <u>8</u> | <i>y</i> 3 | 89 | 6.2 |
| | | ~ A | | | 0.50 | 87;\\\92;\\1\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | \$\frac{8}{7} \tilde{\beta} | ¥07 | 95 | 10.9 |
| 11-2085 | tomate | fruit | Q 029@0 | 16 1 & | 0.01 | 100 | 100 | 107 | 88 | 8.4 |
| | tomata | \$ % | | 1 | (0.Q)) | 169 L | 2 00 | 100 | | |
| (11-2085-01), to | (n | N (%\) | A 4 | /1 | 41.0 | 94 (\$\tilde{\pi}' \tilde{\pi} | 94 | 94 | | |
| (11-2085-04) | ð S | | | 3 0 | overa | O W | 94 | 100 | 98 | 3.5 |
| GLP: yes | | | DFA A | \bar{b} " | 0.002 | | 93 | 93 | | |
| 2011 | % | | | 1 1 % | 0 × 1 0 | 92 | 98 92 | 98 92 | | |
| | 39 | | | | ov@all | | 92 | 98 | 94 | 3.4 |
| | | | BY 002960 | 1 | Ø.01 | 98 | 98 | 98 | | |
| ~ | | | *DYEAFO | 1% | 0.10 | 100 | 100 | 100 | | |
| | | | | | 100 | 87 | 87 | 87 | | |
| | 2/ | | | 3 | everall | | 87 | 100 | 95 | 7.4 |
| to (11-2085-04) (1 | | | | | ý | | | | | |



IIA 6.3.1.6 Fruiting vegetables – sweet (bell) pepper (solanacea)

BYI 02960 is to be registered in Europe for use in sweet peppers. European residue data in pepper are therefore presented below to support the intended use. Use pattern (GAP) information, including the European "agricultural use" as well as the "home & garden use" to be supposed, is summarize Table 6.3.1.6-1.

Table 6.3.1.6-1: Use patterns (GAPs) for the spray application of BYL 2960-containing formula in/on peppers in European fields (southern residue residue) and greenhous

| Description | F/G | No. of appls. | Application rate |
|---------------------|----------------|---------------|--|
| "agricultural" use* | G | 2 | 112.5 450Q 750 10 10 10 10 10 10 10 10 10 10 10 10 10 |
| "home & garden"** | F [†] | 1 2 | 11.2.7 1 1.2.5 500-750 1/a 3 3 14.2.5 2 225 2 500-750 214 3 |

In order to support the EU safe up of BI 02000, set of GLP trial were and upod in southern European fields in 2010 and 2011 and in the seenhouses in 2011. In southern European field-grown peppers, BYI 02960 was applied twice as an SL formulation (BY 02960 SL 200, containing 200 g/L BYI 02960 a.s.), at A-day interval. For the use in graphouses, BYI 02960 was applied as in the field, but at 10-day intervals. In both cases, the envisaged HI was 3 days, reflecting the planned well withe intended worst wase field use. agricultural use On the Greenhouse,

Residue levels of BYI 02960 and its notabolites DFA and JFEAF were analyzed individually and summed to yield the carculated "total residue of BOI 02960". The most critical residue levels were observed in the greenhouse trials on which a highest total residue value (HR) of 0.63 mg/kg was determined. The TMP in the trial was also the higher the two sets, at 0.27 mg/kg.

The number of trials conducted to each use de cribed dove (incl. information on geographical region and vegetarion period) is sumpairized below in table 6.3.1.6-2.

agricultural use based on an SL 200 formular in "home & garden" uses with an SL 50 form of the general public of a retail

uses in the southern residue region (EU-S)
core rate per meter plant foliage height@resting hargreenhouse based on a machine the core rate per meter plant foliage height@resting hargreenhouse based on a machine the core rate per meter plant foliage height@resting hargreenhouse based on a machine the core rate per meter plant foliage height of 2



Table 6.3.1.6-2: Overview of European residue trials conducted in peppers per geographical "residue region" and vegetation period, including key results

| Use description (cf. table 6.3.1.6-1) | Region | Veget. | o. of tria | als V | (mg | e levels /kg) | Report No. Dossier Jef.: IIA | |
|---------------------------------------|--------|--------|------------|----------|----------|------------------|---------------------------------|---|
| (en table dellio 1) | | 2010 | 2011 | <u> </u> | HR | STMR | 6.3.1% | |
| trials in Eur | .OPE | | | | | * | | |
| "agricultural" use | G | - | 8 | 8 | 3 | 0.27 | 11-2081 | (|
| "home & garden" | EU-S | 4 | 4 | 8 | Ø 0.25 | | 10-2187 0 0 02 4 | |

EU-S = southern EU field residue region, G = greenhouse

Southern European residue region (field)

| Southern European residue region (field) | | | | | | |
|--|---|--|--|--|--|--|
| | | | | | | |
| Report: | KIIA 6.3.1.6/01, 2012 2012 2012 2012 2012 2012 2012 2 | | | | | |
| Title: | Determination of the Desidue of BY 02960 M/on sweet paper after spraying of BYI 02960 SL 200 in the field in France (south), Italy Spain and Partigal | | | | | |
| | SL 200 in the field in France (sound), Italy Spain and Partigal | | | | | |
| Report No. & | 10.2187 dated Ontember 27. 2012 | | | | | |
| Document No.: | M-439089-01@ | | | | | |

| Report: | KIIA 663.1.6/02, 2012 |
|---------------|---|
| Title: | Determination of the residue of BY 1/2960 Won sweet perper after spray application of |
| | BY \$42960 \$L'200 of the field in southern France Spain and Italy |
| Report No. & | 1@2083 dated Stemb 25, 202 |
| Document No.: | \$\text{396}83-01\text{1} \tag{9} |

| Guidelines (apples to goth studes): | Directive 91/41@EEC sidue on or of treated products, food and feed |
|-------------------------------------|--|
| | DEC Guidance Vorkin@document 7029/VI/95 rev. 5 |
| | US PA OCSPP Coideline No. 869:1500.SUPP (applies only to 11-2075) |
| GLP (applies to both studies): | yes (certified laboratory); Deviations: none |

the outher European residue region, as follows:

Spans, and Fortugal were conducted to support the use of BYI 02960 SL 200 in sweet peppers 2012 KII26.3.1.6/01). Two applications were made at intervals of 14 days at a cominal rate of 6.625 \$\mathbb{Q}\$/ha, stresponding to 125 g/ha BYI 02960 a.s.; the water rate was 500-800 ha, reflecting local practice in the trial regions. All treatments were made at the scheduled rates, exemple treatment in one trial (10-2187-01, first application overdosed by The higher application are used in 2010 was 11% higher than the rate to be registered, thus well within the EU's acceptance criteria for use pattern comparability.)

Four further trials were carried out in 2011, in France, Spain, and Italy (2), to complete the data , 2012, KIIA 6.3.1.6/02). The basic application parameters were as in 2010, except

that applications were made at a nominal rate of 0.563 L/ha, corresponding to 112.5 g/ha BYI 02960 a.s.; water rates ranged from 600-750 L/ha. All treatments were made at the scheduled rates.

Samples of pepper fruit were taken immediately prior and subsequent to the final application, and at several intervals thereafter (up to 7 or 14 days after treatment in 2010 and 2007 trials, respectively). The envisaged PHI was 3 days.

The samples were analyzed for the parent compound and its metabolites DFA and DFFAF using method 01304 (2010 trials; for method details, cf. KIIA 4.3/03). The respective LOG for the 3 analytes were 0.01, 0.02, and 0.01 mg/kg (all in parent equivalents).

II. Findings

Validation of pepper fruit was done within study 13-2187 of. KIOA 6.3.P.6/01). Concernent of recoveries of BYI 02960 and its metabolites DEA and DEAT were obtaine Concernently to the analysis of the field samples of sweet pepper ratio of all studies. This sample materials collected in Dese trads.

The recovery samples for parent and DPEAF Were spiked a develooff 0.01 mg/kg and 0.10 mg/kg (expressed in BYI 02960 equivalents), as will as 1.0 mg/kg (expressed in BYI 02960 equivalents) for 2011 trials. Mean re-coveres were all within a ceptable ranges (88-702%) XSDs of the larger validations sets [n>2] 2.6-6.6%—n=2-6).

Fortification levels or DFA were or 0.02 mg/kg and 0.20 mg/kg, as well as 1.0 mg/kg (expressed in BYI 02960 equivalents for 2014 trials. Mean recoveries were all within acceptable ranges (90-98%, RSDs of the larger variation sets 0 > 2]4,9-4.3%, n=26).

Details of recovery data are shown include 6.3.1.6. All wal data are summarised below in table 6.3.1.6. All wal data are summarised below in table 6.3.1.6. All wal data are summarised below in table 6.3.1.6. All wal data are summarised below in table 6.3.1.6. All wal data are summarised below in table 6.3.1.6. All wal data are summarised below in table 6.3.1.6. All wal data are summarised below in table 6.3.1.6. All wal data are summarised below in table 6.3.1.6. All wal data are summarised below in table 6.3.1.6. All wal data are summarised below in table 6.3.1.6. All wal data are summarised below in table 6.3.1.6. All wal data are summarised below in table 6.3.1.6. All wal data are summarised below in table 6.3.1.6. All wal data are summarised below in table 6.3.1.6. All wal data are summarised below in table 6.3.1.6. All wal data are summarised below in table 6.3.1.6. All wal data are summarised below in table 6.3.1.6. All wall data are summarised below in table 6.3.1.

On day 2 mmediately collowing the 2nd and final treatment, residue levels in pepper fruit were between 0.069 mg/ts and 0.32 mg/tg (mo final collows). On day 3 — the envisaged PHI — the levels were 0.05-0.25 mg/tg, with a median volue of 0.13 mg/kg.

The analytic of results revealed that total residue levels often had not yet reached their highest levels at the nominal PHI days. This was already indicated in the 2010 trial packages for other crops, although peak a sidue values or peppers were seen on day 6 in one trial as well. In order to ensure that the maximum revenue residue levels are captured, additional sampling was conducted 14 days after treatment in the 2048 program; in those trials, the highest residue levels were seen on day 14 in 3 trials.

Maximum residue levels at any relevant sampling interval (\geq 3 days post-application) over the complete set of trials ranged from 0.05-0.25 mg/kg (median 0.17 mg/kg).

Evaluation of representativity:

As highest residue levels were also seen in samples taken after the envisaged OHI of 3 days – on day 6 (trial 10-2187-04) or on day 14 (11-2083-01, -02, and -04) – the entire set of trials was recevaluated for its representativity.

In the 2010 package, either "normal" or "plateau" residue behavious was evident in all fore of the trials at PHI 3. Only in trial 10-2186-04 were residues on day 5/6 (0.12 mg/kg) higher than an day 3 (0.11 mg/kg). However, this increase is very small, and even within the scope of suppling or analytical variability; also, as mentioned, a plateau local appears to have been regarded.

In 2011, peak residues were determined at the scheduled PHI & days in trial 11-2083-03, although similarly high levels at the day-10 sampling diggest fore of a "placau". At trial 11-2083-01, 202, and -04, residue levels increased slowly and somewhat explicitly from the PHE to the small sampling event (day 14). Although it is the detically possible that these values might continue to inspease slightly, the slow and generally regular nature of their "as ensions" the fact that peak residues were, in fact, seen at earlier sampling intervals in 5 of 8 the trials in this package; and the fact that none of these trials represents a "remarkable" value, e.g. the HR, in this data set would seen to indicate that the values are indeed part of ore population, and representative of the whole. However, as they are close to the HR, which itself of an important "driver" of the MRD (see MIA 67.2), these trials must be considered carefulls during MRI Detting

III. Conclusions sweet peppers, southern European residue region)

In order to support the use in the EU of BX 02960 in peppers, availed trials were conducted in the southern European esidue region in the years 2010-2011. BYT 02960 was applied twice as an SL 200 formulation at affective substance rate of 112.5 g/ha per treatment in 2010 and at an active substance rate of 112.5 g/ha per freatenent in 2011. Both of which support the intended use rate (112.5 g/ha). The application intervals were approx. All applications were at the required rates except for a very min deviation in one trial, and all trial were conducted according to GLP.

Samples were taken immediately after the 2nd opplication and at several intervals thereafter, including the envisaged Poll of 3 days. They were analyzed for the relevant residues of BYI 02960, comprising the parent coopound and its metabolites DFA and DFEAF. The residues of all three analytes were summed too field a calculored "total residue of BYI 02960". The results of the trials presented above demonstrate that

- Total revalues of BYI \$2960 remained fairly constant in bell pepper fruit between the final application and the nominal PHI, from levels of 0.069-0.32 mg/kg on day 0 after the final treatment to 0.05-0.25 mg/kg on day 3. The respective median values were 0.12 and 0.13 mg/kg.

- analytical results revealed that total residue levels often had not yet reached their highest levels at the nominal PHI.
- peak residue levels at any relevant sampling interval (≥3 days post-application) ranged from 505-0.25 mg/kg (median 0.17 mg/kg).

 despite the delayed attainment 507
- angolis, a consider the first of the first o Signature of the state of the s The state of the s despite the delayed attainment of the maximum residue levels, the trials reported hereafter considered to yield suitable results for MRL evaluation and the trials ampling integral.



Table 6.3.1.6-3a: Application scenario in residue trials conducted in/on peppers after spraying with BYI 02960 SL 200 in the field (southern EU residue region)

| | 02900 SL 200 | I III UIO IIOIG | 1 20000001 | | | T | 0 | ~ |
|--|--------------------------|-----------------|-----------------------------------|------------------|------------------|----------------|-------------|----------------|
| Study No. | | | | Application | I | | | |
| (Trial No.) | | | | | kg/hk (a.s.) | | | D. T. |
| Country Location | Crop | FL | | 1/1 | | GS 4 | © PHI | |
| Location | Variety | FL | No. | kg/ha | kg/h4 | GS 4 | (days) | |
| Region | | | | (a.s.) | (a.s.) | Ş | | Ĉn |
| Year | | | | . | | `~\ | PHIO (days) | 7 |
| 10-2187 | pepper, | 200 SL | 2 | 0.125-0.133 | 2 0.0250- | Č/82 | | _e © |
| (10-2187-01) | sweet | | | | 0.0250 | | | Ô |
| France | Albi | | , Š | | | ~ ~ | | , |
| | | | | Q. | | \$ | | |
| | | | | | | | | |
| EU-S | | & | , Q° | | | | | |
| 2010 10-2187 | | 0° | W . | 0 120 | 0 0 0 0 | · | 4 | |
| (10-2187-02) | pepper, sweet | 200 SL | \$\frac{1}{2} \times \$\left(\) | kg/ha (a.s.) | 0.0179 | 0,2 | 3 5 | |
| (10-2187-02) Italy | Ividor | | | D J | D' , | | | |
| Tury | | | | | | | O | |
| | e ⁽ | | ~ \$ \(\frac{1}{2} \) | 9 | | | b | |
| EU-S | | 1 . "0" , | | | | | | |
| 2010 | | 200 SL | | | 1 8° ~ | | | |
| 10-2187 | pepper sweet | >200 SL | O ' | 0.12 | 0.0156 | Ö ³ | 3 | |
| (10-2187-03) | Sweet | | L O | 4 7 | ¥ . Q | i i | | |
| Spain | Tipo Italiano | | | | | Ų. | | |
| | | | | | | | | |
| EU-S 2010 10-2187 (10-2187-04) Portugal | Carboni - Carbo Italiano | 200 SL | | | | | | |
| 2010 | | | | . W |) 'Y | | | |
| 10-2187 | pepper () | 200 SL | 2 | 0.12 | 179 | 79 | 3 | |
| (10-2187-04) | sweet | | | | ₩ | | | |
| Portugal O | Pompeu - | V , | | | y | | | |
| S | Musu y | | | | | | | |
| | | | S ; | 9 2 | | | | |
| EII C | | | | | | | | |
| 2010 | | | | | | | | |
| FI = formulation | | OCS = Securit | th state (BB | MCH-code) at las | et treatment | | | |
| FLI-S = southerne grone & | Secidue Secion's | | O Se (DD | Ti-code) at las | st treatment | | | |
| LO-5 — souther Suropeut | residu 4egion 4 | | | | Com | 4: | | |
| | | | L | | Con | tinued on ne | exi page | |
| | Q Q . | | | | | | | |
| | | `_@\\```` | Ž | | | | | |
| | | Q S | y | | | | | |
| _@\ [\] | . 4 | | | | | | | |
| A . A | | , × | | | | | | |
| EU-S 2010 10-2187 (10-2187-04) Portugal EU-S 2010 FL = formulation EU-S = souther Gurope of | | | | | | | | |
| | | y | | | | | | |
| T D A | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |



Table 6.3.1.6-3a (cont'd.): Application scenario in residue trials conducted in/on **peppers** after spraying with BYI 02960 SL 200 in the field (southern EU residue region)

| | WILLIBITY | J2900 SL 20 | 00 111 tile 1 | , | | e region, | 0 | |
|---|----------------------|-------------|---------------------------------------|--------------------|---|---|------------|------------|
| Study No. | | | | Application | l . | | | |
| (Trial No.) | | | | | | | | 7 × 7 |
| Country | Crop | - | | | * | | © PHIA. | |
| Location | Variety | FL | No. | kg/ha | kg/hk (a.s.) | GS 4 | PHI (dass) | |
| ъ . | • | | | (a.s.) | (a.s.) | Q | | A_ |
| Region | | | | | × 1" | , Oʻ | | <i>Q</i>) |
| Year | 1 | 200 GI | 0 ~ | 0.112 | Ø 0 0100 | \(\sigma\) | | Ø n |
| 11-2083 (11-2083-01) | pepper, sweet | 200 SL | 2 🔻 | | 0.0188 | 81 | | 4 |
| France | Albi | | 4 | | | | | |
| | Hybride | | 4 | Q, | ۰ . ۵ | 1. 1 | © ,@ | V |
| | | | | | 6 KU | | W I | |
| EU-S | | //- | | Ø' ,\^ | | | 29 | |
| 2011 | | ~ | | | | 7 | | |
| 11-2083 | pepper, | 200 SI | | | \$\frac{1}{2}\text{0.0161-0}\text{0.01}\text{8} | \$2 | | |
| (11-2083-02) Spain | sweet | | | | 0.01 | | (| |
| Spain | Lloret | | | | | | | |
| | | | | | | | | |
| | . (| | | | | |) | |
| EU-S | | | | | | | | |
| 2011 | | 200 SL | | 0.110 | 0.0188 0.0188 | | | |
| 11-2083 | pepper sweet | ≈200 SL | \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | $\mathcal{L} 0.11$ | 0.01880 | ð e | 3 | |
| (11-2083-03) Italy | sweet | | \$ 0 | 4 2 | A "Ø | | | |
| Italy | sweet (| | | | | | | |
| EU-S | A A | | | \$ 6 | | | | |
| | | | | | | | | |
| 2011 11-2083 (11-2083-04) Italy | pepper, so eet Cleor | 20 SL | | | 0.0130 | 82 | 3 | |
| (11-2083-04) | so eet | W ~ | , 9 | | | | | |
| Italy | Cleor 🗸 🦿 | | | Z. Z. | | | | |
| | , O C |)" & "O" | | |] 7 <i>0</i> | | | |
| FILS | | .1 ~ | | | 1 | | | |
| 2011 | | | | | | | | |
| FI - for Viction C% | Uraysh Obac (PI | PCH of at | ko Otrootmo | J | | | | |
| FL = IOI Malation Cos | -growth stage (BI | | rist treatme | | | | | |
| EU-S — Southern European | 1 esiduz region | | , O' | ~ | | | | |
| Q | | . T | | Ţ | | | | |
| | | / | , O' . (| 7 | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| 4, 29 | A | ' Ö | | | | | | |
| | | Q S |) | | | | | |
| | | W & | | | | | | |
| 4 4 | | ¥ Q | | | | | | |
| | | <i></i> | | | | | | |
| EU-S 2011 FL = formulation GS EU-S = southern Europy n | | ~ | | | | | | |
| | | | | | | | | |
| | y Jy | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| Ö | | | | | | | | |
| - | | | | | | | | |
| | | | | | | | | |



Table 6.3.1.6-3b: Results of residue trials conducted in/on peppers after spraying with BYI 02960 SL 200 in the field (southern EU residue region)

| Study No. | | | Re | esidues (mg/kg) exp | oressed as BYI 029 | 60 |
|--|----------------------------|---|---|---|---|-----------------------------------|
| (Trial No.) | Portion | DALT | | | BYI 02960- | |
| Country | analyzed | (days) | BYI 02960 | difluoroacetic acid | difluor ethylan no- | total residue of BYI (2960 cas |
| GLP | | | | acid | furanone | |
| 10-2187 | fruit | 0* | 0.05 | 0.03 | .01 | 0.08 |
| (10-2187-01) | | 0 | 0.09 0.06 | 0.63 | <0.01 <0.01 | |
| France | | 3 | 0.08 | 0.03 | Q <0.01 | \$0.12 |
| GLP: yes | | 5 7 | 0.04 0.05 | 0.03 | <0.01 | |
| 10-2187 | fruit | 0* | 0.01 | © <0.02 ~ | (0.0°15) | 04 0 |
| (10-2187-02) Italy | | 0 | 0.05 | <0.02 % | | 3 0.08 3 V |
| Italy | | 3 | 0.02 | Q < 0.05 | ©0.01 ® | (0 <u>.</u> 0 <u>.</u> 0. |
| GLP: yes | | 5 7 | 0.02 | © 002 002 002 | <0.01 | 005 |
| 10-2187 | fruit | 0* | | ©<0.02< | 7 .01 | ₩ 0.02°°° |
| (10-2187-03) Spain | | 0 | 0.25 | | 0.01 0.02 | 0.28 |
| Spain | | 3 | 0.21 | 0.03 | \$\langle \cdot \cd | \$ ₹0.24 |
| GLP: yes | | 4 7 @ | 002 | 0.04 0.04 | 0.01 | 9 0.16 9 0.17 |
| 10-2187 | fruit | G# | 0.04 | <0.02 | <0.01 | 0.07 |
| (10-2187-04) Portugal | | | | (<0.02 (<0.02 | 9 × 1 9 1 9 1 | 0.11 0.11 |
| Tortugar | | 3 4 | 0.08 | \$\langle \langle \cdot \langle \langle \cdot \langle \langle \cdot \langle \cdot \langle \cdot \langle \cdot \cdot \langle \cdot \cd | 40.01 | 0.11 |
| GLP: yes | | | 20.08 0.05 3 | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | <0.01 0 <0.01 | 0.12 0.09 |
| 11-2083 | fræ | 0 0 0 | 0 2030 | 0.036 | < 0010 | 0.077 |
| (11-2083-01) France | | $\frac{1}{3}$ | 0.13 | 9 0.038 9 0.045 | 0.010 | 0.20 0.17 |
| 1 | | √ P | 0.1 | 0.065 | © 0.010 | 0.19 |
| GLP: yes | | 10 ≪ 14 ≪ | 0.093 | 0.087 | 0.011 0.015 | 0.19 0.22 |
| 11-2083 | fruit Ø | | 0.003 | 0 000 | < 0.010 | 0.15 |
| (11-2083-02) | II UII | | | \$\text{0.038} \times | <0.010 | 0.069 |
| Spain | | 3 3 | Ž Ž. V. | 0.046 | <0.010 | 0.14 |
| GLP: yes | | | 0.063 | \$ 0.00 \$67 | <0.010 <0.010 | 0.17 0.14 |
| ~ | | | ~ 0.0 ~ | 0.12 | <0.010 | 0.20 |
| 11-2083 | fruit | 00* ~ | 0.07 | 0.12 | <0.010 | 0.074 |
| (11-2083-05) Italy | \$ \$\tilde{\chi}_{\chi}\$ | 0 | 0.22 | <0.020 <0.020 | <0.010 <0.010 | 0.32 0.25 |
| , | | A. | 0.16 | < 0.020 | < 0.010 | 0.17 |
| GLP. yes | | ©14 C | | 0.026 0.020 | <0.010 <0.010 | 0.22 0.14 |
| 11-2083 (11-2083-04) Italy GLP: yes | G fruits | | 0.013 | 0.025 | <0.010 | 0.049 |
| (11-2083-04) Italy | | \(\tilde{\gamma_3}^{\tilde{\gamma}}\) \(\pi\) | 0.004 | 0.021 0.034 | <0.010 <0.010 | 0.075 0.077 |
| | S (| | 0.022 | 0.032 | < 0.010 | 0.065 |
| GLP: yes | Ž A | 10 | 0.030 0.029 | 0.074 0.098 | <0.010 <0.010 | 0.11 0.14 |
| | | | 0.047 | 0.070 | ~0.010 | 0.14 |

DAET = day after last treatment
* prior to Out treatment



Table 6.3.1.6-4: Recovery data for BYI 02960 in **peppers**

| Study No. Trial No. | | D4* | 1 | | Fortifi- | | Reco | very (% | o) | , W |
|--------------------------------|------------------|------------------|---------------------|-------------|----------------------------|---|-----------------|-------------------|-----------------|-------------|
| GLP Year | Crop | Portion analysed | a.s./ metabolite | n | cation level (mg/kg) | Individual recoveries | Min | Max | Mean | RSD |
| 10-2187 | pepper, sweet | fruit | BYI 02960 | 6 | 0.01 | 94;97; 98; 101; 101; 103 | 94 | 103 | | 7 .3 |
| 10-2187-01 to 10-2187-04 | | | | 4 | overall | % 9; 91; 93; 95 | %√89 89 | 95× | 92 | 2.8 |
| GLP: yes 2010 | | | DFA | 6 | 067 | 89; 91; 91; 92; 93; 94 Q | 89 | \$\frac{3}{4} | 2 2 | 01.9 |
| | | | | 4 4 | 0.20 ove a ll | 86; 87, 92; 90 | 86 [~] | 94 ⁰ | 900 ~91 | 3.0 |
| | | | BYI 02960- DFEAF | Q % | 0.01 | (79; 88; %3;93; (794; 94) (88, 671; 93, 793 | © 79 | 94 A | 90 🗳 | 6.6 |
| 11.0000 | | 0. : | | 10 10 | 0.f% | 88(91; 93,198 | √79 √79 | © 94 | * × × × | 5.1 |
| 11-2083 11-2083-01 | pepper, sweet | fruit | BYI 92960 | 2 2 8 | 0.18 | 88,701 | 93 \$ | 102 | 98 0 | |
| to 11-2083-04 | | Z Z | | _ | coverall | (4; 102Q* | 88 | 102 | 98 97 | 6.1 |
| GLP: yes 2011 | | | DIOX S | 2 (V | 0.02 | 94; 101 | 94 287 | 10A \$ 95 | 98 91 | |
| | .fc | | | 2 | 91.0 over | 795; 90 ° | 95 87 | 97 101 | 96 95 | 4.8 |
| | | | EYI 02960- A | 7 | 1 | 96; 182 | \$ 87 | 88 | 88 | 1.0 |
| ٥ | | | DFE | c | 1.65 overall | 96; 102 | 96 99 87 | 102 105 105 | 99 102 96 | 7.7 |
| | | | | | Y 1, | | | | | |

Greenhouse

| Report: | KIIA 6.3.1.6/03, 2012 | | |
|----------------------------|---|-----|--|
| Title: | Determination of the residues of BYI 02960 in/on 02960 SL 200 in the Greenhouse in France, Spain, | | |
| Report No. & Document No.: | 11-2081, dated August 17, 2012 M-436855-01-1 | A A | |
| Guidelines: | Directive 91/414/EEC, residues in or on treated pro EC Guidance working document 7029/V5/95 rev. 5 US EPA OCSPP Guideline No. 860.1500.SUPP | | |
| GLP: | yes (certified laboratory); Deviation@none | | |

Eight residue trials were conducted in the gr

ere onducted to support the use of In 2011, 8 trials (France [2], Spain [2], Ital [2], and Green 2012, KMA 6.51.6/0.99. Two applications were made BYI 02960 SL 200 in sweet pepper (at intervals of 10 days (13 in one trial) at a nominal one of 1.563 (Sha×m), corresponding to 112.5 g/(ha×m) BYI 02960 a.s.; the water ofte was 500-750 L/(ha×m) reflecting local practice in the trial regions. All treatment were made the cheduled rates with the exception one trial (11-2081-01) in which both applications were exercles by \$42\%\O\\ 59 \left(\lambda \text{km}\right)\), which is outside of the . Thus, his trist must be considered carefully in the EU's nominal acceptance criteria (25%) evaluation of the da package

work taken immediately prior and subseque to the final application, and at several intervals thereafter (up to 14 dath) after reatment). The envisaged PHI was 3 days.

ayzed for the parent compound and its marabolites DFA and DFEAF using The samples were and The respective LOQ for the 3 analytes were 0.01 mg/kg, method 01212

Validation of pepper fruit was done within studies 10-2226 (soil drench study; available on request) and within stude 1-2081 (cf. MIA 6 2.1.6/6). Concurrent recoveries of BYI 02960 and its metabolites To A and DFE were obtained during the conduct of all studies in sweet pepper. This sample material is epresonative of all ample materials collected in these trials.

ample for parent and DFEAF were spiked at levels of 0.01 mg/kg and 0.10 mg/kg, as well as 0.20 and 1.0 mg/kg (expressed in BYI 02960 equivalents). Mean recoveries were all within accepta ranges (96-105%, RSDs of the larger validations sets $[n \ge 2]$ 3.1-8.1%, $[n \ge 1]$ 3.1-8.1%, [n

Fortification levels for DFA were or 0.02 mg/kg, 0.20 mg/kg, and 0.40 mg/kg, as well as 2.0 mg/kg (expressed in BYI 02960 equivalents). Mean recoveries were all within acceptable ranges (96-97%, RSDs of the larger validations sets [n > 2] 4.0-13.4%, n=1-7).

Details of recovery data are shown in table 6.3.1.6-6. All trial data are summar ed below in table 6.3.1.6-5a & b and in greater detail in the Tier 1 summary forms. (Residues & parent BYI 02960 are well as its metabolites DFA and DFEAF are expressed in BYI 02960 equivalents. From the individual values, the "total residue of BYI 02960" was calculated as the sum of these three analytes expressed in parent equivalents.)

On day 0, immediately following the 2nd and final freatment, residue levels in pepper vuit were between 0.11 mg/kg and 0.93 mg/kg (median 0.22 mg/kg). On day 3 the envisaged PHC the levels were 0.12-0.56 mg/kg, with a median value of 19 mg/kg.

The analytical results revealed that total residue levels often had not reveaced their highest levels at the nominal PHI (3 days). In these trial, the highest residue levels were seen on any 10 m one or al, and on day 14 in 5 trials.

Maximum residue levels at any Celevant sampling in Frval (2 day post-application) over the complete set of trials ranged from 0.12-0.6 mg/kg (median 0.27 mg/kg).

Evaluation of representativity:

Trial 11-2081-01 was everded by approx, 41% considerable larger deviation than those nominally deemed "acceptable in the EU (-25%). For this reason, results of the trial at various sampling intervals were evaluated in the context of the intire pepper green douse program presented here. Residue level at critical sampling Cents were close to the median over the entire set of trials. On day 0, immediately after the final approaction 0.25 kg/kg was determined in this trial (median of all trials: 0.22 mg/kg). Similarly the varies from e.g. day 3 (0.23 mg/kg) and from the maximum at any relevant interval (0.27 mg/kg) were very smilar to the respective median values over all trials, 0.19 and 0.27 mg/kg. Thus, despite the nominal overdosate, this trial can be considered to be valid and its data representative.

In addition as highest resolue levels was also seen in samples taken after the envisaged PHI of 3 days – on day 90 (trial 11-2001-01) or on day 14 11-2001-02 and -05 through -08) – the entire set of trials was re-evaluated for as representativity.

Either "normal," plateau" psidue schaviour was evident in three of the trials, 11-2081-01, -03, and -04, in which peak residues were measured on day 3 or 10. Similar behaviour was observed in 11-2081-05 and -65 as well, in which peak residues were seen at the final sampling interval (day 14); residue levels is these two tests were erratic from interval to interval, but fairly steady over time, and only running higher at day 14 (by 0.02 mg/kg) than at other earlier but non-consecutive intervals.

In the Paining three trials, residue levels increased steadily from approx. day 5 or 7 on, reaching their peak levels on day 14, the final sampling interval. Peak total residue levels here were 0.20, 0.40, and 0.18 mg/kg, meaning that none of these results is particularly close to the HR (0.63 mg/kg); even

if residues were to continue to increase, there is little indication that they would "arrive" at a level even close to the HR. This would seem to indicate that the values are indeed representative, and can be used in MRL evaluation.

The HR, 0.63 mg/kg, is itself derived from a day-14 sample (trial 11-2081-06), out as stated previously, the trial in question seems to exhibit "plateau" behaviour. As the R is an important "driving factor" of the MRL (see KIIA 6.7.2), this situation must be considered carefully during MRL, setting.

III. Conclusions (sweet peppers, greenhouse)

In order to support the use in the EU of BYI 02960 in weet peppers. European greenhouses in the 2011 season. BYI 02960 was applied twice as an SL 200 formulation of an active substance rate of 112.5 g/(ha×n) per treatment. The application in vals, were 10 13 days. All applications were at the required races with the exception of on Orial, in which the applications were overdosed by approx. 42% (150g/[ha/m]); the trial of question was evaluated based on its residue results and is considered also to be valid. All trials was condicted seconding to GLP.

Samples were taken immediately after the 20rd application and at Several intervals thereafter, including the envisaged PHI of 3 days. The were analyzed for the relevant resolues & BYL 2960, comprising the parent compound and its metabolites DFA and DEEAF. The residues of all thee analytes were summed to yield a calculated Notal cosidue of BYL 2960. The esult of the vials presented above demonstrate that:

- total residue of Bell 02960 remoned willy constant bell supper fruit between the final application and the nominal PMI, from levels of 0.1 20.93 mg/kg on day 0 after the final treatment re median varies were 0.22 and 0.19 mg/kg, to 0.12-9.56 mg/kg respectively.
- often and not yet reached their highest levels at analytical results reveal
- interval (≥3 days post-application) ranged from 0.12peak widue levels any 0.63 mg/kg (median 0.23
- despite the delayed attainment of the maximum residue levels, the trials reported here are considered to yield suitable results for MRL evaluation, though care must be taken to evaluate the effects of peak residuo evels determined at the final sampling interval.



Table 6.3.1.6-5a: Application scenario in residue trials conducted in/on **peppers** after spraying with BYI 02960 SL 200 in the greenhouse

| Study No. | | | | Application | | | , W | Ĉ |
|---|---|---|-----------------|---|-----------------|----------------|---------------|----------|
| (Trial No.) | | | | | | | | Ş |
| Country | Crop | | | | 7 | | O) O) PHIA | <i>.</i> |
| Location | Variety | FL | No. | kg/ha | kg/hC | GS 4 | (dass) | il. |
| Dagion | | | 1100 | (a.s.) | kg/kC (a.s.) | S | | r a |
| Region Year | | | | (a.s.) 0.13 (0.159 kg/[ha×m]) 0.19 (0.19 0.203 (0.14 0.225 (0.113 kg/[lau×m]) 0.214 0.225 (0.113 kg/[lau×m]) | | 081 9 081 9 | PHI (days) | Z)] |
| 11-2081 | pepper, | 200 SL | 2 | 0.1357 | D 0.0150 | 0.81 | 30 | 1 . |
| (11-2081-01) | sweet | | | $(0.159 \text{ kg/[ha\times m]})$ | | , Ø - F | | |
| France | Galileo type | | | | ĺ | Y Q | | , V |
| | Lamayo/ 1/2 | | <i>#</i> | Q' | o S | 4 | | ' |
| | length | | Q)" | | | \O` \& | , W | 1 |
| Greenhouse | | | <i>\(\(\)</i> | | | b ' ~~ | W. | i) |
| 2011 | | | Ö [*] | | | | 4 | 1 |
| 11-2081 | pepper, | 200 SI ₄ | 2 0 | 0.19 7.203 | 0.0150- | 89 | 3 | i) |
| (11-2081-02) | sweet | (V) | | (0.1)3 kg/[ha×m])_ | 0.0550 | | | i) |
| France | Almuden; Pepper | Ŵ | , ">>" | | | | | i) |
| | sweet | Q 4 | | | | | | i) |
| C 1 | 4 | | | | | |) | i) |
| Greenhouse 2011 | Q | | Ò | | | | | 1 |
| 11-2081 | | % CI | @ <u>`</u> | W 214 6 225 Q: | 001500 |) | 2 | 1 |
| (11-2081-03) | pepper sweet 4 | 290 SI | , 2 | (0.113 kg/[bh×m])». | 0.0150 | 0,0 | 3 | 1 |
| Spain | Sweet Araan: | | Ñ | | | Ò | | 1 |
| Spuin | Aran; greenhouse pepper | Q | . S | | | | | i) |
| | pepper | <i>(</i> | D > | | , ~ | | | 1 |
| Greenhouse | | | Ş | | | | | 1 |
| 2011 | 4.8 | | | | <i>@</i> , | | | 1 |
| Greenhouse 2011 11-2081 (11-2081-04) Spain | henner & | | <i>γ</i> γ | 7 214-D225 V | 0150 | 89 | 3 | 1 |
| (11-2081-04) | kepper, Sweet | | | (0.113 kg/[hs/m]) | | | | i) |
| Spain | Elvis | | | | | | | i) |
| | Nepper, Sweet Sweet Elvis California Sype | | | (0.143 kg/[hg/m]) | | | | 1 |
| | Cabe 2 | | | | | | | 1 |
| | | Š | | | | | | 1 |
| Greenhouse \$\times\" | | ~~ | & ' | | | | | 1 |
| Greenhouse 2011 | | & . | | | | | | 1 |
| 11-2081 | Seppen Sweet Cyclear: | \$\frac{1}{2}\frac{1}{2 | 2 6 | 70.135 (0.113 kg/[ha×m]) | 0.0150 | 83 | 3 | 1 |
| (11-2081-05) | swee | | | (0.113 kg/[ha×m]) | | | | 1 |
| Italy | Yellow S | | 6 | , W | | | | i) |
| | | W Z | | 2 | | | | i) |
| Croombouse | | | `,^9' | | | | | i) |
| Greenhouse 2011 | | Ø. | | | | | | i) |
| 11-2081 | penner. | 20 0 SL | $\sqrt[n]{2}$ | 0.135 | 0.0150 | 83 | 3 | ì |
| 11-2081 (11-2081-06) Italy | pepper sweet ~ | | » <u>~</u> | $(0.113 \text{ kg/[ha \times m]})$ | 0.0130 | 03 | 3 | ì |
| Italy S | Corso di | <i>[</i> | | (************************************* | | | | ì |
| Y° | Cores di to rosse | ~9~ | | | | | | il. |
| | | | | | | | | il. |
| Green Kouse 2011 | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ | | | | | | | Ì |
| 2011 200 and a second a second and a second | | | | | | | | Ì |

FL formulation GS = growth stage (BBCH-code) at last treatment

^{*} In the most trial, the applications were overdosed by 40.6-41.8% due to the wrong height of crops used as a basis for the calculations for the application rate.



Table 6.3.1.6-5a (cont'd): Application scenario in residue trials conducted in/on peppers after spraying with BYI 02960 SL 200 in the greenhouse

| | spraying | with BY | (1 02960 | Application kg/ha (a.s.) 0.169-0.175 0.113 kg/[ha×ry]) | eenhouse | GS | L S | \$ |
|--|-----------------|---------------|------------|---|----------------|--------------|------------------|----------|
| Study No. | | | | Application | | 0 | | |
| (Trial No.) | | | | | 8 | | | |
| Country | Cwan | | | | Į Ž | 4 | DIA | |
| Location | Crop Variety | \mathbf{FL} | No. | kg/ha | kg/fil | GS | (C) | |
| | variety | | 110. | (a.s.) | (a.s.) | | (x y s) | |
| Region | | | | Ĉ | L. | | | a, |
| Year | | | | N A | | | | <i>U</i> |
| 11-2081 | pepper, | 200 SL | 2 | 0,169-0.175 | 0.0150- | 862 | | |
| (11-2081-07) Greece | sweet Rico | | | (%).113 kg/[na×kkg/] | 0.0223 | . × | | |
| GR | 100 | | | × × | | | | |
| OIC . | | | 1. | | | | F | |
| | | | ~ | | | | | |
| Greenhouse | | 4 | | | 8° "0" | | L° | |
| 2011 | | Ţ | | | | | | |
| 11-2081 | pepper, | 200 %L | | A A A A A A A A A A A A A A A A A A A | 0.9150 | 840 | 23 | |
| (11-2081-08) | sweet | Q v | | (0.113 kg/[hazm]) | | |) | |
| Netherlands | Yellow | | | | P , S | | | |
| | Q | i En | Ò | | | | | |
| | | | <i>~</i> | TO OF ST | | & | | |
| Greenhouse | | / × | , , | | | 0" | | |
| 2011 | | | Ø) | Ament S | * ~ ~ 1 | © | | |
| EI = formulation GS = | growth state (B | BCH code | lact t | restment (| | | | |
| TE - formulation 05 - | growth state (E | . © | O A | | | | | |
| Ş | y Gy Z | () 7 (1) | Ţ | | | | | |
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| | | | | | | | | |
| III-2081 (11-2081-08) Netherlands Greenhouse 2011 FL = formulation GS = | | | | | | | | |
| | | | | | | | | |
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Table 6.3.1.6-5b: Results of residue trials conducted in/on **peppers** after spraying with BYI 02960 SL 200 in the greenhouse

| Study No. | | | D | osiduos (ma/ka) evi | pressed as BYI 029 |)60 Ø |
|--------------------------------|----------|--------------------|--|---|---------------------------|-----------------|
| (Trial No.) | | | K | - | BYI 02960- | |
| Country | Portion | DALT | | difluoroacetic | difluor | total reduce of |
| Country | analyzed | (days) | BYI 02960 | acid | ethylam no- | BYI 02,960 cas |
| GLP | | | | ucia | furanone | |
| 11-2081 | fruit | 0* | 0.11 | < 0.02 | <0. 01 | 0,16 |
| (11-2081-01) | | 0 | 0.22 | <0.02 | © 0.01 | 0.25 |
| France | | 1 | 0.19 | <2 | @<0.01 | |
| | | 3 5 | 0.19 0.17 | 0.031 | ○ <0.01 <0.01 ✓ | 0.21 |
| GLP: yes | | 7 | 0.17 | 0.040 | <0.01 | |
| | | 10 | 0.20 | 0.063 | \$0.01 ₀ | 0.27 |
| | | 14 | 0.16 | 0.087 | 0.013 | 9.26 |
| 11-2081 | fruit | 0* | 0.053 | Ø 0.020 | | °> 0.083 |
| (11-2081-02) | | 0 | 0.15 | 0.05 | 6 0.01 | 0.10 |
| France | | 3 | 0.13 | 026 _× | (| |
| CI D | | 5 | | 0.035 | | 0.15 |
| GLP: yes | | 7 | \$088 Q | 0.056 | 20.01 | 0.10 |
| | | 10 | \$.066¢ | 0.084 | 0.01 | 0.14 |
| 11 2001 | 0 : | 14 | 0.08% | y 640 y | \$\int \(\text{\cong} \) | ¥.20 |
| 11-2081 | fruit | 0* | 004 | \$\int 0.02 \\ \forall < 0.02 \\ \forall \cdot \text{\tin}\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\text{\tex{\tex | | № 0.17 |
| (11-2081-03) | | 1.0 | 25. 8. | 0.00 P | 0.01 | 0.26 0.28 |
| Spain | | 3 | (0.24°) | √ √02 √√ | ~ 0.01 ~ 0.01 | 0.28 |
| GLP: yes | | <i>\@</i> 5 | 0 0 20 Q | <0.02 | QQY1 \? | 0.23 |
| GEI . yes | | 7 3 | 0.95 | 0.020 | 0.010 | 0.18 0.19 |
| | | 10 | <i>y y</i> 0.14 () <i>y</i> 0.13 <i>y</i> | 0.000 % | 0.0130) | 0.19 |
| 11-2081 | fru | ₹0* | | 20.02 Ø | <0.01 | 0.051 |
| (11-2081-04) | | | 9 0.084 ~ | <0.02 | 2 01 | 0.11 |
| Spain | | 1 💝 | & 0.076 Y | <0.02 | ₹ 0.01 | 0.11 |
| • | | | 0'0.0880 | | <0.01 | 0.12 |
| GLP: yes | (Q, | 7 . | 0.054 | 0.02 | <0.01 <0.01 | 0.084 0.087 |
| | Į į | 10^{\prime} | Ø:029 | | <0.01 | 0.062 |
| | | 140 | ≈0.051 \ . | Ö ^y % 938 , O' | < 0.01 | 0.099 |
| 11-2081 | fruin | ₹ 0** | 0,10 | \$0.02 Å | < 0.01 | 0.18 |
| (11-2081-05) | | 0 (| | 0<0.02 | < 0.01 | 0.32 |
| Italy | | | ().25 ° () | 0.150 | <0.01 | 0.28 0.34 |
| CI D. — — | | | 0.20 | 0.042 | <0.01 <0.01 | 0.34 |
| GLP: yes | | 8 ³ 7 ~ | | 0.053 | < 0.01 | 0.24 |
| | Ö | 10 | | 1 % 1 U.U90 | <0.01 | 0.33 |
| <u> </u> | 2 | 142 | 0.25 C | 0.14 | 0.012 | 0.40 |
| 11-2081 | fruit | A* . | 0.30 | 0.024 | <0.01 | 0.43 |
| (11- 20 81-06) Italy | | 1 C | | 0.029 0.022 | <0.01 <0.01 | 0.93 0.81 |
| italy | @ | 3 | 0.53 | < 0.022 | < 0.01 | 0.56 |
| GLP: yes | # _A \ | | ₩ 0.57 ¥ | 0.022 | 0.011 | 0.61 |
| CLI . yes | | | | 0.032 | 0.014 | 0.51 |
| | | | 0.55 0.55 | 0.030 0.054 | 0.012 0.022 | 0.40 0.63 |
| ~~~ | L | 1+0 | 0.55 | 0.034 | 0.022 | 0.03 |



Table 6.3.1.6-5b (cont'd): Results of residue trials conducted in/on **peppers** after spraying with BYI 02960 SL 200 in the greenhouse

| Study No. | | | Re | esidues (mg/kg) exp | oressed as BYI 029 | |
|--|------------------|---|---|---|--|--|
| (Trial No.) Country GLP | Portion analyzed | DALT (days) | BYI 02960 | difluoroacetic acid | BYI 02960- difluor ethylangno- furanone | total residue of BYI 62960 cas |
| 11-2081 (11-2081-07) Greece | fruit | 0* 0 1 3 | 0.041 0.26 0.15 0.15 | 0.032 0.033 \$733 0.062 | \$0.01 \$0.01 \$0.01 \$0.01 \$0.01 | 0.00 |
| GLP: yes | | 5 7 10 14 | 0.099 0.090 0.10 0.089 | 0.053 0.086 0.13 0.16 | <0.01 <0.01 <0.01 <0.01 <0.01 | 0.22 0.16 0.00 0.24 0.24 0.24 |
| 11-2081 (11-2081-08) Netherlands GLP: yes | fruit | 0* 0 1 3 5 7 10 14 | 0.061 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12 0.12 | \$\left(\) \ | (0.01) (0.01) (0.01) (0.01) (0.01) (0.01) (0.01) | 0.09 0.45 0.15 0.15 0.15 0.15 0.15 |

| | | 14 | Q 0.140 | | | 033 🐧 💍 | <u> </u> | | √√, 1 | 0 |
|------------------------------------|-----------------------------|-------------|---------------------|--------|------------------|---|--------------|---------|----------|------|
| DALT = days at * prior to last tro | fter last treatn eatment | nent | | W W | | | | | | |
| * prior to last tro Table 6.3.1.6 | -6: Recove | ery Pata fo | oPBYI (2960 | | peppers | | - 59 - 59 | | | |
| Study No. Trial No. | | Portion | | | ortifi- | | - (| Pery (% | o) | |
| GLP Year | Cross | Sysed (| metakolite A | n Y | le QI (mg/kg) | Individual recoveries | Min | Max | Mea n | RSD |
| 11-2081 | pepper sweet | fretut | BYI 02960 | | 0.02 | 94; © 8; 88; © ; 98: 109: 27 | 88 | 109 | 98 | 6.4 |
| (11-2081-01) to | ~\P | | BY102960 | | Ø:10 € | \$08; 107; 101° 100: 94 | 94 | 110 | 103 | 6.1 |
| (11-2081-08) | | 4 | | 12 | 0.20 | 98 | 98 | 98 | | |
| CI D. | | A S | | 4 | 0.20 | 2 3 | 103 | 103 | | |
| GLP: yes 2011 | | | | 14 | Överall® | 7 | 88 | 110 | 100 | 6.2 |
| | | | DFA O | 700° | 0.00 | 91; 89; 90;93; 90; 102; 125 | 89 | 125 | 97 | 13.4 |
| | | ? Q [| | 5 2 | 0.20 | 89; 98; 97; 96; 98 | 89 | 98 | 96 | 4.0 |
| Z, | * | | * | | 0.40 | 95 | 95 | 95 | | |
| | @ \ | a y | ′ <i>0</i> , | 1 | 2.0 | 94 | 94 | 94 | | |
| | | | | 14 | overall | | 89 | 125 | 96 | 9.5 |
| | | | SYI 02960- DFEAF | 7 | 0.01 | 90; 97;85; 106; 102;102; 105 | 85 | 106 | 98 | 8.1 |
| | | | | 5 | 0.10 | 107; 100; 105; 103; 108 | 100 | 108 | 105 | 3.1 |
| | | | | 1 | 0.20 | 96 | 96 | 96 | | |
| \cup | | | | 1 | 1.0 | 106 | 106 | 106 | | |
| | | | | 14 | overall | | 85 | 108 | 101 | 6.7 |



IIA 6.3.1.7 Fruiting vegetables – cucumber, incl. zucchini and gherkin (cucurbits – edible peel)

BYI 02960 is to be registered in Europe for use in cucumber and related crops (zucchini, gherking) European residue data in cucumber crops are therefore presented below to support the intended use Use pattern (GAP) information, including the European "agricultural use" as Well as the garden use" to be supported, is summarized in Table 6.3.1.7-1.

Table 6.3.1.7-1: Use patterns (GAPs) for the spray application of BY 2960-containing to in/on cucumber and related crops in European fields (southern related crops in European fields) greenhouses

| Description | F/G | No. of appls. | per treatment are season (L/ks) (days) (da@) |
|---------------------|----------------|---------------|--|
| "agricultural" use* | G | 2 | 2 1 1 2 7 50 0 3 g/(ha×m)† 5 112 7 500 50 5 n/a 3 |
| "home & garden"** | F [†] | 1 2 | 112.5 112 500 050 5 n/a 3 2 112 05 500 750 14 3 |

agricultural use based on an SL 200 (mulation)

In order to support the use of YI 0060, sets of 62P trials wer oconderted in Youthern European fields and in green wises to 2010 and 2001. In souther European field-grown cucumber and gherkin, BYI 02960 was applied wice as an SL formulation (BYI 02960 SQ 200, Ontaining 200 g/L BYI 02960 a. Q at 1 day in ervals For the use by greenouse BYI 02960 was applied as in the field but at 10-day intervals. In both cases, the envisaged PHI was 2 days, reflecting the planned agricultura use in the greenhouse, as well as the intended worst-case field use.

Residue levels of BI 02960 and its metabolites DFA and DFEAF were analyzed individually and summed to yield the carvulates total residue of BYL 02960. The final residue levels of BYI 02960 in all cucumber fait samples taken are after the expisaged PHI for this crop of 3 days after the final application were 0.09-0.70 mg/kg in the Southern field trials (median 0.21 mg/kg) and 0.18-0.52 mg/g in the green ouse median 0.31 mg/kg

The number of trials conficted for each use described above (incl. information on geographical region and vegetation period) is sumparized below in table 6.3.1.7-2.

[&]quot;home & garden" uses with an SL Wiormylation (available to the general public vice etail saluses in southern residue region (EU-S)

uses in southern residue region (EU-S) core rate per meter plant foliage reight. Testing in reenhouse based on a max, height of m, equipment to max.

Table 6.3.1.7-2: Overview of European residue trials conducted in cucumber per geographical "residue region" and vegetation period, including key results

| Use description (cf. table 6.3.1.7-1) | Region | | o. of tria | als Σ | Residue (mg/ | /kg) | Report No. | Dossie ref.: |
|---------------------------------------|--------|------|------------|----------|-----------------|------|------------------|-----------------|
| | | 2010 | 2011 | 1 | HR | STMR | Z. | 46.3.1.7 |
| trials in EU | ROPE | | | | | | 4 6 | 7 29 0 |
| "agricultural" use | G | 4 | 4 | 8 | 0. 5 2 | 0.31 | 10-2189, 11-2067 | ×93, 04 |
| "home & garden" | EU-S | 4 | 4 | 8 | 674 | 0.21 | 10-2184, 1,2066 | 01,0 |

Southern European residue region (field)

| 48110411441 450 | _ | | | Ů | () | 0.01 | , 10 - 10 2 , 11 8 | |
|-------------------------|----------------|-------------|------------|----------------|---------------------|--------------|---------------------------|------------|
| "home & garden" | EU-S | 4 | 4 | 8 | 6 74 | 0.21 | 10-2184, 1 | 2066 01,02 |
| EU-S = southern EU fiel | d residue regi | on, G = gro | eenhouse | | a.Y | | | |
| | | | | e e | 4 | Q" | | |
| Southern Europea | ın residue | region (| (field) | Q) | | | , ,& 1c | |
| | | 9 | <u> </u> | & | | | | |
| Report: | KIIA 6.3 | R 1 7/01 | | | | 0120 | | |
| Report. | | | | ₹. | | | | |
| Title: | Determin | ation of | the regid | ues of B | YI 029 60 in | On cucumbe | er at@r spræyin | |
| | BYI 0296 | 60 SL 20 | 0 in We 1 | field in F | rance (sout | Y), Span and | Ataly of | |
| Report No. & | 10-2184, | dated Se | pomber | 6 /2012 | \$ 15° | | | |
| Document No.: | M-43818 | 8-01-1 | " " | צ" יצ | , ~ ~ ~ . | | | |

| Report: | KIIA 6.3,1,7/02, 201,20 ; 201,20 © |
|---------------|--|
| Title: | Determination of the residues of YI 02000 in/on ghertan after spray application of |
| | BYI 02960 SI, 200 in the field in southern France, Spann and Valy |
| Report No. & | 11-2066, dated September 10, 201 |
| Document No.: | M\$38326401-1 |

| | Directive 9 1/2/EFO, residues in ∞ on treated products, food and feed |
|-------------------------------|--|
| | ES Guidance working document \$\frac{1}{29}/\text{V1/95 rev. 5} |
| | OS EPA OCSPR Guideine No. 60.1500.SUPP |
| GLP (applies to both sylles): | yes (certified Oboratory); Deviations: none |

soutkern European residue region, as follows:

In 2010, 4 trials (southern France Italy and Spain [2]) were conducted to support the use of , 2012, KIIA 6.3.1.7/01). Two applications were made at intervals of A day at a numinal rate of 0.625 L/ha, corresponding to 125 g/ha BYI 02960 a.s.; the water rate was 500-800 wha, rejecting local practice in the trial regions. All treatments were made at the schouled rates. The higher application rate used in 2010 was 11% higher than the rate to be regardered on us with the EU's acceptance criteria for use pattern comparability.)

Four furder trials were carried out in 2011, in France, Spain (2), and Italy, to complete the data , 2012, KIIA 6.3.1.7/02). All 2011 trials were conducted with gherkin varieties, in order to properly represent a typical array of sizes of this crop over the two-year span of

the trials. The basic application parameters were similar to those in 2010, except that applications were made at a nominal rate of 0.563 L/ha, corresponding to 112.5 g/ha BYI 02960 a.s.; the water rate was 500-600 L/ha, reflecting local practice in the trial regions. All treatments were made at the scheduled rates.

Samples of cucumber fruit were taken immediately prior and subsequent to the final application, and at several intervals thereafter (up to 7 or 14 days after treatment in the 2010 and 2011 trios, respectively). The envisaged PHI was 3 days.

The samples were analyzed for the parent compound and its metabolites DFA and DFEAR using method 01304 (for method details, cf. KIIA 4.3/03). The respective LOOs for one 3 analytes were 0.01, 0.02, and 0.01 mg/kg (all in parent equivalents).

Validation of cucumber fruit was done within and 12 1907 of 1200 of 2007 for the 2007 for th

Validation of cucumber fruit was done Within Rudy 19-21827 conduct of the complete set of cucupper states in 2010.2011 concurrent recoveries of BY \$2960 and its metabolites DFA and DFEQF were obtained from samples of oucum er fruit. This sample material is representative of all cample materials collected in these or als.

The recovery samples for parent and DEPAF we spiked at levels of 0.01 mg/kg, 0.02 mg/kg, 0.10 mg/kg, and 1.0 mg/kg (exercessed in BYF0296(Cequivo ents). Mean recoveres were all within acceptable ranges (90¢)02%, $\Re SD_S = 1$ the larger varidations sets $\Re n > 2$ 0.6-7, $\Re n = 1$ -6).

Fortification level for NFA were 0.02 mg/kg, and 0.02 mg/kg, as well as 0.20 and 1.0 mg/kg (expessed in BYO)2960Qquivaents) Mean occoveres were all within acceptable ranges (87-100%, BSDs of the larger valadations sets) 2] 66-11.99

All trial trial trial are summarised below in table Details of recovery daya are shown in table 3.3.1% 6.3.1.7-3a & b and a greater detail in the Tier summary forms. (Residues of parent BYI 02960 as well as its metabolites DFA and DFF of are expressed in SYI 02960 equivalents. From these was calculated as the sum of these three analytes, individual values, the total residue of BX 02960 expressed in parent equivoents

On day 0, immediately following the 2nd and first treatment, residue levels in cucumbers/gherkins were between 0.12 and lowing/kg/(median 0.6 mg/kg). On day 3 — the envisaged PHI — the levels were 0.07-0.67 @g/kg, again with a wedian alue of 0.15 mg/kg.

The analytical results revealed that total residue levels often had not yet reached their highest levels at the nominal PH (3 days). The was already evident in the 2010 trials, in which peak residue values were seen on may 4.5 (2 trials), or on day 7 (2 trials), the final day of sampling. In order to capture the maximum Clevant resident levels, additional sampling was conducted 9-10 and 14 days after treatment in the 201 program; in those trials, the highest residue levels were seen on day 3 (1 trial), 9 (2 trials), or day 14 (1 trial).

Maximum residue levels at any relevant sampling interval (≥3 days post-application) over the complete set of trials ranged from 0.09-0.74 mg/kg (median 0.21 mg/kg).

There was no evidence of a difference in residue behaviour between gherkin and "normal" cucumber varieties.

Evaluation of representativity:

As highest residue levels were seen on the final sampling oterval of three trials (10-2484-03 and -046 day 7; and 11-2066-01, day 14), the entire set of trials was re-evaluated for its representation. In the 2010 package, trials 10-2184-01 to 03 essentially showed "plateau kenaviour", with residues remaining fairly constant from the PHI to the final ampling date (day 300 day 3). Only in trial 10-2184-04 was there an apparent "jump" in the residues on the final day, with the day-7 while of 0.22 mg/kg representing approx. twice the residue levels seen on days 2-4.

In 2011, "normal" decline behaviour was evident in trial 11-166-02. In the demaixing trials, a placeau was again seen in the samples taken from day, yonwards. Total 11-2066-60, which showed highest residues on day 14, showed a very policy increase in residues on time from \$12\$ make or olay 3 to 0.16 mg/kg on day 14. These "inecesses" are very small, with the difference per sample interval of only 0.01-0.02 mg/kg; they are also within the copy of various type and analytical error. Thus, taken in the context of all of the trials, this trial cantalso be seen as yielding representative results.

Trial 10-2184-04 (cf. poove) an also be viewed in the larger context. All of the general evidence from the remaining trials indicated that residue levels and to Matter" in the phase between days 3 and 14. Even given the "jump" to 622 nag/kg on the final sampling day of the trial, there is reason to believe that residues would be concluded the limb appreadoly. In addition, even if they were to reach double their day-7 levels, they would still not a higher than the highest residue seen in the rest of the studies (6.74 mg/kg), and thus yould have no particular effect on the critical data used to evaluate and establish MRLs.

Thus the trials are consolered to be yand and representative of the use described.

III. Concluçons (cucumber, southern European residue region)

In order to support the use in the EU of BYI 05/60 in cucumber, 8 valid trials were conducted in the southern European residue region in the year 2010-2011. BYI 02960 was applied twice as an SL 200 formulation to an active substance rate of 125 g/ha and 112.5 g/ha per treatment in 2010 and 2011, respectively, both of which support the intended use rate (112.5 g/ha). The application intervals were approxed days All applications were at the required rates, and all trials were conducted according to GLP.

Samples were taken immediately after the 2nd application and at several intervals thereafter, including the envisaged PHI of 3 days. They were analyzed for the relevant residues of BYI 02960, comprising the parent compound and its metabolites DFA and DFEAF. The residues of all three analytes were

summed to yield a calculated "total residue of BYI 02960". The results of the trials presented above demonstrate that:

- total residues of BYI 02960 remained fairly constant in cucumber/gherkin fruit between the mal application and the nominal PHI, from levels of 0 12-1 0 mg/kg are decomposed. 0.09-0.67 mg/kg on day 3. The respective median values were 0.15 mg/kg at both dates
- yet revelhed their husbestuk/yets are

 set any relevant sampling interval (≥3 days post-agalication) rauged from 0.094

 mg/kg (median 0.21 mg/kg)

 despite the delayed attainment of the maximum assidue flevelogine triffs reported by early considered to yield representative resities sustable for MRL2 valuation.

 the residue behaviour in gherkin Add "n/maximal" secumbar variffies is similar.



Table 6.3.1.7-3a: Application scenario in residue trials conducted in/on **cucumber/gherkin** after spraying with BYI 02960 SL 200 in the field (southern EU residue region)

| Study No. | | | | Application | <u></u> 1 | | |
|--|---------------------|------------|----------------|----------------|---------------------|--|---------------|
| (Trial No.) Country | | | | | | | |
| Location | Crop | FL | | kg/ha | l _z g/hJ | GS A | © PHI |
| Location | Variety | FL | No. | (a.s.) | kg/h (a.s.) | | PHI (days) |
| Region | | | | | _ ~// ~ // | | |
| Year | | | | | | \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | |
| (10-2184 | cucumber | 200 SL | 2 | 0.125 | 0.0250 | | |
| (10-2184-01) southern France | Marinda; Gherkin | | 4 | _s O | | | |
| southern France | GHCIKIII | | | Ö, | | | |
| EU-S | | | 00° y | ~ * | | 088 088 0 | |
| 2010 | | , | | | . O | | , Ç |
| 10-2184 | cucumber | 200 SIO | - | × 0 125 | ©0156 | 73 | |
| (10-2184-02) | Llanoverde | 200 310 | W . | 0.12 | 00130 M | | |
| Spain | Ziano , crac | | | | | | |
| | | | | JO J | | | |
| | | | | | | | 0~ |
| EU-S | | | | | | | |
| 2010 | | 1 "0" | | | P Ö | | |
| 10-2184 | cucumber | 200 SL | | © 1.125 d | \$156, | \$2 \$2 \$2 | 3 |
| (10-2184-03) | Mezzo | | \\ \@'\ | | | | |
| Italy | lung (di | Ď | \$ m | \$ _2 | ¥ . Q | | |
| | Polignano | | | \$ | | | |
| ELL C | Y A | | | | | | |
| EU-S | | | | | |) | |
| 2010 | | | | Chias. | | 70 | 2 |
| (10-2184 | cucumber() | 250 SL | | Ø.125 | 0 0227 | 79 | 3 |
| (10-2184-04) | Paris | | | | | | |
| Trance | | | | | 700 | | |
| . Co | b' 🐃 🔊 | .4 % | | | | | |
| | | | | | | | |
| EU-S | . F . Š | | |) . o' | | | |
| 2010 | | | Y & | 5 | | | |
| I = formulation | | 10 Z - 00 | th stage (DD | (Carada) et le | at traatment | | |
| ELL C = a seedle erre Ferrere er | | OS - gyoyn | in stage (BB | | st treatment | | |
| 20-S = southern Furopea | an swidue region | | |) | | | |
| | | | | | | | |
| | | | | | | Continued | n nort nac |
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| 41 | S'A | | | | | | |
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| F Z | | | | | | | |
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| | y "Y | | | | | | |
| | 20 | | | | | | |
| Ĉ. | | | | | | | |
| | | | | | | | |
| EU-S 2010 10-2184-04) France EU-S 2010 EU-S 2010 EU-S 2010 EU-S 3010 EU-S = southern Europea | | | | | | | |



Table 6.3.1.7-3a (cont.): Application scenario in residue trials conducted in/on cucumber/gherkin after spraying with BYI 02960 SL 200 in field (southern EU residue region)

| Study No. | | | | Application | 1 | | , w |
|---|----------------|--|---------------------------------------|---------------|----------------|----------|--------|
| (Trial No.) | | | | | | | |
| Country | C | | | | | , | |
| Location | Crop | \mathbf{FL} | *** | kg/ha | kg/h | GS & | PHIO |
| | Variety | | No. | (a.s.) | (a.s.) | | (days) |
| Region | | | | | kg/h | | (dass) |
| Year | | | | Pa | | | |
| 11-2066 | gherkin | 200 SL | 2 | 0.113 | 0.0188 | 085 Q | 30 |
| (11-2066-01) | Raider F1; | | | Îô | ₩ . | , | |
| southern France | Cucumber | | "Č ^y | | e C | | |
| | | | | . ~ | | \$ | |
| | | | Q) | | | | |
| | | & | ϰ | | | | W. |
| EU-S | | 0 | \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | | | ř L | 4 . |
| 2011 | | | | Ž Q | | 73 | |
| 11-2066 | gherkin | 200SL ~ | \mathcal{I} 2 | 3 113 | 0.008 | √ 73 | |
| (11-2066-02) | Potomac; | | , Q' | | | | |
| Spain | short cucumber | 200 SL _ | | | | | |
| EU-S | - Cucumber | ~ ~~ | . ** | | | | 1 |
| 2011 | - 4 | l 🗞 🧯 | | | | | |
| 11-2066 | gherkî | 7 0 SI 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 | | 0.100 | 0.0088 | | 3 |
| (11-2066-03) | Suso; field | 7200 | L 2 | | \$0.0188 | (G) | 3 |
| Spain | gherkin O | | | | | Į Į | |
| | | Q Z | A | | | 7 | |
| | | | \ \(\frac{1}{2} \) | | \$ 0.0188 - | | |
| EU-S | | w . | \$ \$ | |) | | |
| 2011 | 4 . O | 200 SL | | W A | Q) | | |
| 11-2066 | gherkin | 200 SL | | \$ 0.11 | 3. 0226 | 87 | 3 |
| (11-2066-04) | Cetriclino di | Y 40 | | | | | |
| Italy | fruit Small | 4 % | | | | | |
| | | | | 50.110 | | | |
| FILS & | 1 . Š | | | | | | |
| 2011 | | | Y 4. | | | | |
| EL = formulation | | 10 - or 0 | th stage (DD | Canada) et le | at traatment | | |
| ELL C = confluencion | | O'S - growi | in stage (BB | | st treatment | | |
| 20-3 – southern European | Saldie Assion | | , O' (| <i>D</i> * | | | |
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| | | Q 3 | Ÿ | | | | |
| Ø1 [\] | | Q A | | | | | |
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| | | ♥ | | | | | |
| | | ⋄ | | | | | |
| EU-S 2011 11-2066 (11-2066-04) Italy EU-S 2011 FL = formulation EU-S = southern Furopean | | • | | | | | |



Table 6.3.1.7-3b: Results of residue trials conducted in/on **cucumber/gherkin** after spraying with BYI 02960 SL 200 in the field *(southern EU residue region)*

| Study No. | | | Re | esidues (mg/kg) exp | oressed as BYI 029 | 60 |
|---|------------------|--|--|--|---|--|
| (Trial No.) Country GLP | Portion analyzed | DALT (days) | BYI 02960 | DFA | BYI 02960- DFEAC | total resource of BYI 02000 car |
| 10-2184 (10-2184-01) southern France GLP: yes | fruit | 0* 0 1 3 5 7 | <0.01 0.05 0.05 0.06 0.05 0.03 | 0.07 0.09 0.06 0.05 0.12 0.14 | <0.01 0.01 0.01 0.01 0.01 0.01 0.01 | 0.09 0.15 0.17 0.17 0.17 |
| 10-2184 (10-2184-02) Spain GLP: yes | fruit | 0* 0 1 3 4 7 | 0.05 0.04 0.05 0.04 0.06 0.03 | 0.20 0.18 0.17 0.17 0.17 0.17 0.20 0.20 | \$\frac{0.01}{0.01}\$ \$\frac{0.01}{0.01}\$ \$\frac{0.01}{0.01}\$ \$\frac{0.01}{0.01}\$ | 0.25 0.23 0.24 0.24 0.21 0.24 0.21 |
| 10-2184 (10-2184-03) Italy GLP: yes | fruit | 0* 0 1 3 5 7 | 0.01 0.04 0.02 0.02 0.02 0.02 | 0.03 0.03 0.03 0.04 0.04 0.07 | (0)1 (0,01 (| 0.05 0.15 0.08 0.08 0.07 0.07 0.09 |
| 10-2184 (10-2184-04) southern France GLP: yes | fruit | 0*\(\sigma_1\) \(\sigma_1\) \(\ | 0.07 0.00 0.00 0.00 0.00 0.00 0.01 | 0.67 | <0.010 <0.01 <0.01 0.010 <0.016 | 0.09 0.13 0.15 0.10 0.12 0.22 |
| 11-2066 (11-2066-01) southern France | fixe | 0* 0 0 0 10 14 4 | 0.055 0.047 0.047 0.031 0.031 | 0.054 0.054 0.064 0.085 0.11 0.10 | <001 00.01 0.01 <0.01 <0.01 <0.01 | 0.074 0.12 0.12 0.13 0.15 0.16 |
| (11-2066-02) Spain GLP: yes | | 3 7 10 10 | 0.064 0.26 0.27 0.77 0.064 0.064 | 0.096 0.0988 0.20 0.19 | <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 | 0.17 0.31 0.37 0.31 0.27 0.24 |
| (11-2066-65) Spain GLP. yes | fruit | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 0.31 0.031 0.056 0.015 | 0.31 0.36 0.35 0.56 0.67 0.66 | <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 | 0.40 1.0 0.67 0.64 0.74 0.69 |
| 11-2066 (11-2066-04) (Italy | Piruit . | | 0.01 0.10 0.46 0.028 <0.01 <0.01 | 0.036 0.026 0.045 0.066 0.10 0.090 | <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 | 0.056 0.14 0.10 0.10 0.12 0.11 |

DALD days Her last@eatmonv*



Table 6.3.1.7-4: Recovery data for BYI 02960 in cucumber/gherkin

| Study No. Trial No. | | Portion | a.s./ | | Fortifi- cation | | Recov | very (% |) | |
|--|------------|----------|---------------|--------------|------------------------|--|-------------------|------------|------------|------------------|
| GLP | Crop | analysed | meta- | n | level | Individual | Min | Max | Mean | RSD |
| Year | | J | bolite | | (mg/kg) | recoveries | Ô | 1,144 | 0 (2) |) |
| 10-2184 | cucumber | fruit | BYI 029 60 | 6 | 0.01 | 98; 103; 102; 97; 97; 88 | 8 | 103 | 98 | |
| (10-2184-01), | | | | 1 | 0.02 | 96 | 96 | 96% | 96 | |
| (10-2184-04) | | | | 4 | 0.1 | 105; 91; 1 0 ; | 90 | 163 | | |
| GLP: yes 2010 | | | | 2 | overall | 92; 90 | 90 | 92 | 96 2180 | \$ \(\lambda \) |
| 2010 | | | DEA | 13 | V | 01/1109 192 | 86 ⁵ / | 1039 | 96 | |
| | | | DFA § | 6¥ | 0.02 | 91, 110, 03; 03; 134, 88 4 | 0,88 | 10% | A 2 | S 3.5 |
| | | | | 1 | 0.04 | 92 % % % 98 ; 9 7; 98 | 920 9 7 | 925 | | Ø.6 |
| | | | | ď | 2 0 | 95 × × | 95 , | 95 5 | | |
| | | (| | 2 13 | V1.0 V | 86: 34 | 86 | 9 6 150 | 89 297 | 7.3 |
| | | Q, | | ĈK | OX1 | 500 80e 96: A | 84 | 900 | ×97 | 6.1 |
| | | | | | \$\frac{1}{2}\text{01} | 00; 89; 96; 100; 01; 84 | 64 | D-100 | 92 | 0.1 |
| | | | DFE AGE | | 0.62 | 97 | ×97 | , ©97 | | |
| | \ \ | | | 4 .". | Ø.10 S | 97; 87; 92; \$\int 106\tag{6} | | × 100 | 94 | 6.1 |
| | Ş | | , | 25 | 1.6 | 95; 103 | \$\frac{1}{95} | 103 | 99 | |
| | | | | 13 | grall & | | 84 | 103 | 94 | 6.0 |
| 11-2066 | cherkin | first (| BYI 029/ | 5 | Ç0.01 | 97; 04; 110, 98,98 | 97 | 112 | 102 | 6.2 |
| (11-2066-01) | | | 4 8 | À | 6 70 | 93; 93, 94; 94 | 93 | 94 | 94 | 0.6 |
| 11-2066-64 | | | | 2 | ≈1.0 ≈ | 89; | 89 | 90 | 90 | |
| | , Ű | | | 110 | overall | | 89 | 112 | 97 | 6.8 |
| 3LP: yes 2011 | | | DEA | 3 | \$\text{0.26} | 77; 101; 106; 95; 102 | 77 | 106 | 96 | 11.9 |
| | a, | | | 46 | 0.20 | 81; 91; 95; 89 | 81 | 95 | 89 | 6.6 |
| | | | | | o.240 Overall | 87; 86 | 86 | 87 | 87 | |
| A | <i>৯</i> ₋ | | | 11 | oyerall | | 77 | 106 | 92 | 9.8 |
| (11-2066-01) to (11-2066-04) GLP: yes 2011 | | | BYI (S) | 20 20 | ¥ 0.01 | 95; 99; 101; 94; 96 | 94 | 101 | 97 | 3.0 |
| | | | | 4 | 0.10 | 90; 94; 97; 97 | 90 | 97 | 95 | 3.5 |
| , | Y A | | ¥ Q' | 2 | 1.0 | 90; 101 | 90 | 101 | 100 | |
| | | | ~@ | 11 | overall | | 90 | 101 | 96 | 3.9 |

<u>Greenhouse</u>

| Report: | KIIA 6.3.1.7/03, ; 2012 | | |
|---------------|--|---------------------|-----------------|
| Title: | Determination of the residues of BYI 02960 in/on cucu BYI 02960 SL 200 in the greenhouse in France (South | | |
| Report No. & | 10-2189, dated July 23, 2012 |), the Netherlands, | Germanyand 1637 |
| Document No.: | M-435235-01-1 | 4 | \$ \$. Q |

| Report: | KIIA 6.3.1.7/04, 2012 2012 |
|----------------------------|--|
| Title: | Determination of the residues of BYI 2960 in/on curymber after spring application BYI 02960 SL 200 in the greenhouse in Greece, ItaQ, Spain and Partugal |
| Report No. & Document No.: | 11-2067, dated September 24, 200 M-439079-01-1 |

| | | | W. W |
|--|-----------------------------------|---------------------|---------------------|
| Guidelines (applies to both studies): | Directive 91/414/ETC, resQues | in or treated produ | acts, food and feed |
| (11) | Guidance working descumen | 2/02954/95 ron 5 | |
| | OUS EPA OCSAP Guid ine No | 860 1500 SLE | |
| .0 | , SOB LITA OCOTA GUAGOMIC TVO. | 000,000.5001 | , O |
| GLP (applies to both studies): | yeş (certified laboxatory); Divia | tions: none | |

Materials and Methods

Eight residue trials were conducted in the greenhouse as follows:

In 2010, 4 trials (Frace, the Neth Yands Germany and Italy) were conducted to support the use of BYI 02960 SL 200 in cuclimber (2012, 2012, 2014, 67.1.7/25). Two applications were made at interval of 1 (2) days (11 days in on original) of a naminal rate of 0.625 L/(ha×m), corresponding to 125 g/(ha×m) BY0 02960 a.s.; the water rate was 750 L/(ha×m), reflecting local practice in the trial regions. All treatments were made at the scheduled rates. The higher application rate used in 2010 was 11 higher than the rate of the registered, thus well within the EU's acceptance criteria for use pattern comparability.

Four further trols were carried out in 2011 loin Groce, Italy, and Portugal (2), to complete the data package (& 2012 MIA (2).1.7/44). The basic application parameters were similar to those in 2010, except that application were made at nominal rate of 0.563 L/(ha×m), corresponding to 112.5 g/(ha×m) BX 02960 a.s.. All treatments were made at the scheduled rates, except in one trial, where the first application was overlosed by 10% (corresponding to 124 g/[ha×m] BYI 02960 a.s.; water rate 788 L/[ha×m]) thowever, deviations were less than 25% and, therefore, well within the EUs standard receptance criteria.

Samples of cucomber that were taken immediately prior and subsequent to the final application, and at several intervals thereafter (up to 7 or 14 days after treatment in the 2010 and 2011 trials, respectively). The enviscoed PHI was 3 days.

The samples were analyzed for the parent compound and its metabolites DFA and DFEAF using method 01304 (for method details, cf. KIIA 4.3/03). The respective LOQs for the 3 analytes were 0.01, 0.02, and 0.01 mg/kg (all in parent equivalents).

variuation of cucumber fruit was done within study 10-2 (cf. KIIA (S.1.7/03)). During the conduct of the complete set of cucumber studies in 2010-2011, concurrent recovering of B 2029 and its metabolites DFA and DFEAF were obtained from samples of cucumber front. The sample material is representative of all sample materials callected in these trials.

0.10 mg/kg, and 1.0 mg/kg (expressed in BYI 029) equivalents for 2000 samples, and at 0.01 mg/kg, 0.10 mg/kg, and 1.0 mg/kg in 2011. Mean recoveries were (90-102%, RSDs of the larger validations sets in > 21 0.6

Fortification levels for DFA were 202 mg/kg, 204 mg/kg, and 0.10 og 1.0 mg/kg (expressed in BYI 02060 egt Ivalents) for 3010 stemples and at Pevel 3010 cmg/kg, 0.20 mg/kg, and 1.0 mg/kg it 2011. Mean accoveries were all within acceptable ranges (87-100%, RSDs of the larger validations set $\mathbb{Q}[n > 2]0.6$

All trial da are summer sed below in table Details of recovery data are sown whalle 6.3.1 Zo. 6.3.1.7-5a & b and a greater detain in the Tier 1 sumpary for us. (Residues, of parent BYI 02960 as well as its metabolites DFA and DFEAF are xpressed in BYI 02960 equivalents. From these individual valos, the total Osidue of BY 19296 was Olculated as the sum of these three analytes, expressed in parent equivalent

following the 2nd and firm treatment, revidue levels in cucumbers were On day 0, immediated between 0.15 and 5.36 mg/kg (na dian 5.26 mg/kg). On day 3 — the envisaged PHI — the levels were 0.17-0.47 mg/kg of that rediant alue of 0.29 ong/kgs

The analytical results revealed that total esides level often had not yet reached their highest levels at the nomical PHI (3 days). The was already vide in the 2010 trials for various crops, including cucumber, in which sak residue values were seen on day 7 in one trial, the final day of sampling. In order to ensure that the maximum relevant resolve levels are captured, additional sampling was conducted 10 and 14 days after treatment in the 2011 program; in those trials, the highest residue son on day 3 (Strials), or day 10 (2 trials).

side levels at any relevant sampling interval (≥ 3 days post-application) over the trial range from 0.18-0.52 mg/kg (median 0.31 mg/kg).

Evaluation of representativity:

As highest residue levels were seen on the final sampling interval of one of the trials (10-2189-03, day

7) and at intervals later than the PHI in others, the entire set of trials was re-evaluated for its representativity.

In the 2010 package, trials 10-2189-01, -02, and -04 essentially showed "plateau behaviour", with residues remaining fairly constant from the PHI to the final sampling date (day to day 7). Only in trial 10-2189-03 was there an apparent "jump" in the residues on the final day with the day-7 value of 0.52 mg/kg. However, this value represents only a small increase over the sidue levels seen of days, 1-5 (0.41-0.47 mg/kg).

In 2011, a plateau was again seen in three trials (11-267-01, -02, -03) in the samples taken from day onwards. Trial 11-2067-04, which showed highest esidues on day 10, showed in increase in residues over time, from 0.25 mg/kg on day 3 to a peak value of 0.43 mg/kg on day 10; the was followed by a decrease, at least to the previous "plateau" level of residues on day 14 (0.50 mg/g).

Trial 10-2189-03 (cf. above) can also be seen in this context. As residues peaked at day 10, and essentially reached a "plateau" earlier where is little reason to expect that the residues in this trial would continue to climb appreciably.

Thus the trials are considered to evalled and representative of the ose described

LA Conclusions (cucomber greenhouse)

In order to support the use on the ODJ of BYI 02960 in orderm of the value of the part of

Samples were taken immediately after the 2nd application and at several intervals thereafter, including the envisaged PHI of 3 days. They were analyzed for the relevant residues of BYI 02960, comprising the parent compound and its roctabolites DEX and DEEAF. The residues of all three analytes were summed to yield a calculated "total residue of BXI 02960". The results of the trials presented above demonstrate that:

- total residues of \$\frac{1}{3}\text{VI 02}\text{80} remained fairly constant, or even increased slightly, in cucumber fruit between the first application and the nominal PHI, from levels of 0.15-0.36 mg/kg on day 0 after the fool treatment to 0.17 9.47 mg/kg on day 3. The median values were 0.26 mg/kg and 0.29 mg/kg on day 0 and 3, respectively.
- analysical results revealed that total residue levels often had not yet reached their highest levels at the nominal PHI.



- peak residue levels at any relevant sampling interval (≥3 days post-application) ranged from 0.18-
- despite the delayed attainment of the maximum residue levels, the trials representative results suitable for MRL evaluation.

Table 6.3.1.7-5a: Application scenario in residue trials conducted in/op **Eucumber** aff BYI 02960 SL 200 in the greenhouse

| | | | | (D)" | | () |) \{ | |
|------------------------|-----------------------------|--|-------------------|--|--|------------------------|-------|--|
| Study No. | | | - | ************************************** | Application | | | WHI |
| (Trial No.) | | | Q) | ľ | ~ | u" 💝 | GS GS | , Ø' |
| Country | Crop | | & | l & | | | | ************************************** |
| Location | Variety | \mathbf{FL} | | | kg/ha (a.s.) | g/hl 🍣 | y GS | △(days) 。 |
| | variety | .4 | | ¥ (| 7 (a.s.) | ©(a.s.) | 8 | |
| Region | | | | | , A | | | |
| Year | | \$ | , Y | 1 % | - 10° - 25° | 7 | | adays). |
| 10-2189 | cucumber | 200 SI | y 2 | 0 .213 | kg/[ki/m]). | 7:0167 7:0167 | | \bigcirc 3 |
| (10-2189-01) | Columbia | | | (0.12) | 5 kg/[ha@m]) | | |) |
| southern France | Columbia | , I | Po | 2 | | | | |
| | $\mathcal{O}_{\mathcal{I}}$ | *Lj* | ® ® | Z | | | | |
| Greenhouse | | | | O' | 4 64 | o O | | |
| 2010 | | | 4 | l m | *(231 *) **Kg/[ki/m])** **Kg/[ki/m])** | Š O | | |
| 10-2189 | Roxann | 2065 SL | | 0.250 | 5 6 ½ [hax m]) | 60 167 | S 81 | 3 |
| (10-2189-02) | Roxanna. | 9,7 | | ab.12 | 5/[haxml) | | 7 | |
| Netherlands | 4 5 4 | | | 7 % | | | | |
| | Roxanne | | | | , o' 6 | 99167 5 5 5 7 | | |
| | | | * . | | | S. | | |
| Greenhouse | | | 1 1 | ' | | 7 | | |
| | | V 40 | ĺÝ | * > | | | | |
| | | 20 A SL | | | | 0.0165 | 0.0 | 2 |
| 110-2107 (2) | cucumber armen | 200 SL | \(\frac{\pi}{2}\) | (0.12 | 5 ([ha vi]) | 0.0167 | 89 | 3 |
| (10-2189-02) Germax | armen | | | $\sqrt{0.12}$ | (ha~va]) | | | |
| Germany, | | , Q | % | 1. | | | | |
| | | ~ O | & " | | | | | |
| | 4 | \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | 5 | | | | | |
| Consultance & | | | | | Ş | | | |
| Greenhouse 2010 | | | | | J | | | |
| 2010 | cucumbo Marine F1 | 20A SL 20A SL 200 SL 200 SL 200 SL | | | | | | |
| 10-2189 | cucumber | ₩ SL. | 2 | Ø .250 |) | 0.0167 | 73 | 3 |
| (10-218-04) | Marine F1 | | | (0.12) | 5 kg/[ha×m]) | | | |
| Italy (10-213-04) | Warmey F1 | | | | | | | |
| | | Q | O Y | | | | | |
| | | () | 7 | | | | | |
| Greenhouse 2010 | | Y 2 | | | | | | |
| 2010 | | | | | | | | |
| | <u> </u> | _ ~~ | | | | | | |

FL = formulation GS = growth stage (BBCH-code) at last treatment



Table 6.3.1.7-5a (cont'd.): Application scenario in residue trials conducted in/on **cucumber** after spraying with BYI 02960 SL 200 in the greenhouse

| Study No. | | | | Application | 1 | | |
|---|--|---|---------------------------------------|---|--------------|--------------|----------|
| (Trial No.) | | | | | | | |
| Country | Crop | | | | 8 | | O PHIA |
| Location | Variety | \mathbf{FL} | No. | kg/ha | kg/hl | GS. | (dox(8) |
| | variety | | NO. | (a.s.) | (a.s.) | | (days) |
| Region | | | | .4 | | | |
| Year | | | | L | < | \gg | |
| 11-2067 | | 200 CI | 2 | 0 226 | 0.015 | 75 | 201 |
| | cucumber | 200 SL | 2 | 0.781-0.226 | 0.015 | /20 | |
| (11-2067-01) | Palmera | | | (0.113 kg/[na× | 4 5 | | |
| Greece | long variety | | 40 | V" | | * | |
| | | | | ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ | | ₽ . | |
| | | | Q5 | \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | * 10 | | |
| Greenhouse | | la Ca | \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | |) (m) | ~~~ | |
| 2011 | | | | | Ş | | <i>a</i> |
| 11-2067 | cucumber | 200 SL | * | 0.189-0.226 | 0.0150 | 77 / | 3 |
| (11-2067-02) | Edona | 200 | , O | (%) 13 kg/l (a×md) | © 0.0151 | | y ė |
| Italy | Luona | | , A | | | | |
| 1 tu 1 y | | | | | | | 3 4 |
| | 1 | | | | | | |
| |). | 200 SL | 0/4/N | | | , O | P |
| | Į Ž | 200 SL | į . | | | | |
| Greenhouse | <i>@</i> , | | L | | | d " | |
| 2011 | ~~ | | | 0.184-0.226 (0.113 kg/[ha×m]) 0.184-0.226 (0.113 kg/[ha×m]) 0.223-0.236 (0.113 kg/(ha×m])* | | \mathbb{Y} | |
| 11-2067 | cucumber & | 200 AL | £2 | 0-223-0.256 | ©0.0150- | 83 | 3 |
| (11-2067-03) | Da@overda(O) | | v – | (0.113 kg/(ha×n)- 0.124dyg/[ha×n])* | 0.0150- | | |
| Portugal | Small fraite | | * _4 | 0.124d [ha×m])* | | | |
| | | | | | | | |
| Greenhouse 2011 11-2067 (11-2067-04) Portugal | Small fruits | | | | . Y | | |
| Graanhausa | | |) | | ** | | |
| Oreelillouse | | | _ ∾≪ | | | | |
| 2011 | | y y | | 0.225 (C113 kg/ha×ng) | | | 2 |
| 11-2067 | Cucumber | > 200 & £ | 43° | 0.225 (2113 kg ha×ng) | 0.0150 | 77 | 3 |
| (11-2067-04) O | Kamon; | 1 🔻 | Ø - | (13 kg ha×ng) | | | |
| Portugal 🔊 | Small fruito | 1 4. 2 | / 4 | | | | |
| | Ariety | | | | | | |
| | | | | . O' | | | |
| Greenhouse | | | | () () () () () () () () () () | | | |
| 2011 | | | Y (| | | | |
| 2011 | | | | | | Į. | |
| FL = formulation | Q' ,S ' | ${}^{\circ}_{0}$ GS = ${}^{\circ}_{S}$ Sowt | th stoge | (BBSH-code) at last treatm | ent | | |
| The first application was | overdo d by 189 | ~ ~ · | `~\ | - <u>U</u> | | | |
| <i>n</i> | | Q, ,Q | | | | | |
| | | | & 1 | | | | |
| | , Q, , , , , , , , , , , , , , , , , , | | | | | | |
| | y , * ~ | , "Š., | Q, | | | | |
| | ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ | | A A | | | | |
| | | ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ | ′ | | | | |
| Q) \ | , \$\int_{\circ}\$ | @ | | | | | |
| \$ 1 | | y" ~~ | | | | | |
| | | w . | | | | | |
| | ~O % | ~Q) | | | | | |
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| . 11 // | | | | | | | |
| | | | | | | | |
| | | | | | | | |
| 2011 11-2067 (11-2067-04) Portugal Greenhouse 2011 FL = formulation The first application was | | | | | | | |



Table 6.3.1.7-5b: Results of residue trials conducted in/on **cucumber** after spraying with BYI 02960 SL 200 in the greenhouse

| Study No. | | | Re | esidues (mg/kg) ext | oressed as BYI 029 | 060 ° 7 |
|---|------------------|--|--|---|---|---|
| (Trial No.) Country GLP | Portion analyzed | DALT (days) | BYI 02960 | DFA | BYI 02960- DFEAC | total resolue of BYI 02060 car |
| 10-2189 (10-2189-01) southern France GLP: yes | fruit | 0* 0 1 3 5 7 | 0.03 0.21 0.17 0.12 0.11 0.06 | 0.05 0.05 0.05 0.05 0.12 0.15 | <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 | 0.09 |
| 10-2189 (10-2189-02) Netherlands GLP: yes | fruit | 0* 0 1 3 5 7 | 0.05 0.12 0.13 0.10 0.15 0.10 | 0.08 0.10 0.09 0.21 0.00 0.21 | 0.01 0<0.01 0.001 0.01 0.01 | 0.14 0.22 0.23 0.32 0.32 0.32 |
| 10-2189 (10-2189-03) Germany GLP: yes | fruit | 0* 0 1 3 5 7 | 0.03 0.20 0.22 0.16 0.10 0.304 | 0.15 0.15 0.15 0.30 0.30 0.47 | 001 001 0001 0001 000 000 000 | 0.19 0.36 0.44 0.47 0.41 0.52 |
| 10-2189 (10-2189-04) Italy GLP: yes | fruit | 0*7 0*7 0*3 5 7 7 7 | 0.04 0.26 0.19 0.14 0.08 | 0.05 0.06 0.08 0.08 0.08 0.08 | <0.01 <0.00 <0.00 <0.00 <0.01 <0.01 <0.01 | 0.10 0.34 0.26 0.28 0.22 0.19 |
| 11-2067 (11-2067-01) Greece GLP: yes | fru | 0* 0 3 4 14 | 0.10 0.060 0.078 0.0016 | 0.057 0.036 0.603 0.088 0.098 0.15 | <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 | 0.089 0.21 0.17 0.17 0.18 0.18 |
| 11-2067 (11-2067,02) Italy GLP: yes | fruit | 0*0 7 10 14 | 0.01 0.091 0.67 0.075 9.049 0.026 | 0.14 0.14 0.19 0.20 0.20 | <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 | 0.071 0.15 0.33 0.28 0.32 0.29 |
| 11-2067 (11-2067-03) Portugal GLP; ses | | 0 3 7 Q 10 0 8 0 0 0 8 0 0 0 8 0 | 0.04 0.04 0.04 | 0.11 0.12 0.15 0.22 0.20 | <0.01 <0.01 <0.01 <0.01 <0.01 | 0.15 0.28 0.29 0.28 0.25 |
| 11-2067 (11-2067-04) Portugal GLP: yes | fruit | 0 * 0 * 0 * 0 * 0 * 0 * 0 * 0 * 0 * 0 * | 0.184 0.19 0.16 0.058 0.13 | 0.062 0.057 0.078 0.12 0.37 0.16 | <0.01 <0.01 <0.01 <0.01 <0.01 <0.01 | 0.16 0.25 0.25 0.32 0.43 0.30 |

DALT ways after last treatment



Table 6.3.1.7-6: Recovery data for BYI 02960 in **cucumber**

| Study No. | | | , | | Fortifi- | R | Recove | ery (%) |) | n° | |
|---|----------------------|------------------|---------------------|------------------|-----------------|-------------------------------|-----------------|--------------|---------------|----------------------|----------|
| Trial No. GLP | Crop | Portion analysed | a.s./ metabolite | n | cation level | Individual | Min | Max | Moore | RSD | Ş |
| Year | | anarysea | metabonte | | (mg/kg) | | 8 | IVIAX | | KSDI |); |
| 10-2189 | cucumber | fruit | BYI 02960 | 6 | 0.01 | 98; 103; 102; 97; 97; 88 | 88 | 103 | 98 | \$3.5 \$7.5 | |
| (10-2189-01), | | | | 1 | 0.02 | 96 | 96 | 96 | | | Þ |
| to (10-2189-04) | | | | 4 | 0.02 | 105; 91; 167, 90 | 90 | 193 1992 | | | Q L |
| GLP: yes 2010 | | | | 2 13 | &verall | 92; 90 | 90 ₄ | 105 | 2°91 2°96° | 5. % | ₽ |
| 2010 | | | DFA | \$ \o | 0.02 | 91: 110; 163; 103; 104: 88 | Q 8 | 108 | 100 | () () () () | |
| | | | | 1 | 0.04 | 98; 97; 98 | 92C 97 | 92 | × × |)" ° | |
| | | | | % 71 | 0.20 | 98,0%; 98 | 97 | 95 | | QG° | |
| | | | | 2 19 | Over 31 | 86; 910 | 865 | 91 | 890° 87 | 7.3 | |
| | | Ž, | BYI 02960- DFQAF | 6 | 0.02 0.02 | 98, 89; 98, 100: C | 84 | 200 | Ø √92 | 6.1 | |
| | | | | 1@ | 0.02 | 97 | 90 | 8 | | | |
| | | | | \$ 4 | 020 | 97,487; 92,100, | 287 | 100 | 94 | 6.1 | |
| | % | | | 2 | (1.0 | 95; 10 % | 95 | <i>2</i> 103 | 99 | 6.0 | |
| 11-2067 | 4 | | DVI 62000 | (S) | overa 0.010 | 97; 112; 004; | | 103 | 94 | 6.0 | |
| (11 2067 01) | cucur yer/ ghecin | Fruit & | BYI @2960 |) ⁵⁰ | 910 | 08; 98 08; 98 | 9 97 | 112 | 102 | | |
| (11-2007-01), to | | 4 | | 4° | 128 | 94; 90, 93; 94 | 93 89 | 94 90 | 94 90 | 0.6 | |
| (11-2067-04) | | | | | erall | 0 41 | 89 | 112 | 97 | 6.8 | |
| GLP: yes 2011 | | | TOTA D | 50 | 0.026 | 101, 06; 95; 1,0©77 | 77 | 106 | 96 | 11.9 | |
| ₹ | | | | 7 4 | % 20 | 4 5; 91; 89; 81 | 81 | 95 | 89 | 6.6 | |
| | \$ A | | | 2 | 1.0 | 87; 86 | 86 | 87 | 87 | | |
| | | | | ₽, | overall | | 77 | 106 | 92 | 9.8 | |
| | | | DEXAF & | ₹ 5 \$ | 3 .010 | 95; 101; 99; 94; 96 | 94 | 101 | 97 | 3.0 | |
| | | . Q ~ | | | 0.10 | 97; 90; 94; 97 | 90 | 97 | 95 | 3.5 | |
| | | | | y ² 2 | 1.0 | 90; 101 | 90 | 101 | 96 | 2.0 | |
| , y | | | | 11 | overall | | 90 | 101 | 96 | 3.9 |] |
| 11-2067 (11-2067-01), to (11-2067-04) © GLP: yes 2011 | | | | | | | | | | | |



IIA 6.3.1.8 Fruiting vegetables – watermelon (cucurbits – inedible peel)

BYI 02960 is to be registered in Europe for use in watermelons. European residue data in melon ops are therefore presented below to support the intended use. Use pattern (GAP) information, including the European "agricultural use" as well as the "home & garden use" to be supposed, is summarize Table 6.3.1.8-1.

Table 6.3.1.8-1: Use patterns (GAPs) for the spray application of BYI 0.2 60-containing in/on watermelon in European fields (southern residu Pregions) and gre

| Description | F/G | No. of appls. | Application rate per treatment per season (g a.s.ha) \$\infty\$ (g a.s.ha) \$\infty\$ (Ling) \$\infty\$ (days) \$\infty\$ |
|---------------------|-----|---------------|---|
| "agricultural" use* | G | 2 | 112.5 2 225 0 550 |
| "home & garden"** | E† | 1 | 112.5 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ |
| nome & garden | 1 | 2 | 205 0 500-750 Q 14 W |

agricultural use based on an SL 200 formulation

European fields and in greenhouses in 2010 and 2011. To southern European field-grown melons or watermelons, BYI 02960 as applied twice as an SL formulation (BYI 02,00 SL 200, containing 200 g/L BYI 02960 a.s.), at 14 day intervals. Oin the green buse thats, BYI 02960 was applied twice as an SL formulation (1971 02960 SI 2000), 2010-definiter als. In both cases, the envisaged PHI was 3 days, reflecting the planned agricultural use in the greenhouse, as well as the intended worst-case field use.

Residue levels of BYI 02960 and its manaboli of DFA and INFEAF were analyzed individually and summer to yield the coculated "total residue of Bol 02940". The most critical residue levels were observed in the graphous trials of which a highest total residue value (HR) of 0.30 mg/kg was trials was also the highest or any set, at 0.17 mg/kg.

each se despribed bove (incl. information on geographical region is summarized clowing table 6.3.1.7-2.

view FEur Fean Fiduralials conducted in melons/watermelons per geographand vegetation period, including key results

| Use description (cf. table @3.1.8-5) | Region | V & et. 2010 | o. of toja period 2011 | ils Σ | Residue (mg/ | | Report No. | Dossier ref.: IIA 6.3.1.8/ |
|--------------------------------------|--------|-----------------|------------------------------|----------|-----------------|------|------------------|----------------------------|
| Ly trial n Eu | POPE N | 7 | 2011 | | | | | |
| "home & garden" | EU-\$ | 4 | 5 | 18 | 0.25 | 0.13 | 10-2185, 11-2074 | 01, 02 |
| "agricultural" use | G | 3 | 6 | 18 | 0.30 | 0.17 | 10-2188, 11-2075 | 03, 04 |

EU-S = southern EU field residue region, G = greenhouse

[&]quot;home & garden" uses with an SL 50 formulation (available to the general public xi

uses in the southern residue region (EU-S)



Southern European residue region (field)

| Report: | KIIA 6.3.1.8/01, | , 2012 | |
|----------------------------|--|--------|--|
| Title: | Determination of the residues of BYI BYI 02960 SL 200 in the field in Spa | | |
| Report No. & Document No.: | 10-2185, dated October 1, 2012 M-439328-01-1 | | |

| Report: | KIIA 6.3.1.8/02, 2013 | ZO* | |
|----------------------------|--|--------------------------------|----------------------------|
| Title: | Determination of the residues of BY 02960 in/BYI 02960 SL 200 in the field in ortugal, Italy | /on weter melôn a y∧yd Spa@ | after spray(application of |
| Report No. & Document No.: | 11-2074, dated September 10,2012 | | |

| Directive 9/414/FSC, resource in Co | or on treated products, food and feed |
|-------------------------------------|---|
| FC Guidance working documen 00 |)29/XV/95 rg 75 & O |
| OS EFA OCSA Guid Sine No. 860 | So.Si. P |
| | |
| | Directive 4414/NC, resources in a FC Guidance working socumen 00 0/S E14 OCSP Guidanne No 860 yes (certified laboratory); Deviation |

I. Naterial and Method

Nine field residue trial were Sinducted in the soutern European residue region, as follows:

In 2010, 4 trials (Spain, Jolly, southern France and Fortugal were conducted in melons to support the use of BYI 02960 SL 200 (Legisland & Legisland & Lorenza & Loren

Five further trows were carried out on waternelon in 20 °C, in Portugal, Italy (2) and Spain (2), to complete the data package (2), 202, KLA 6.3, 8/02). The basic application parameters were similar to nose in 2010 but applications were made at a nominal rate of 0.563 L/ha, corresponding to 112.5 g/ha BYI 0290 a.s.; the water rate was 500 750 L/ha. Again, all treatments were made at the scheduled rates.

In 2010, samples of melon buit were taken immediately prior and subsequent to the final application, and at several intervals thereafted (up to 7 days after treatment). In addition, samples of peel and pulp were taken on day 3. In 2011, samples of watermelon fruit were taken subsequent to the final application, and at several intervals thereafter (up to 14 days after treatment), and samples of peel and pulp were taken up to 10 days after the treatment. The envisaged PHI was 3 days.

The samples were analyzed for the parent compound and its metabolites DFA and DFEAF using methods 01304 (2010 trials; for method details, cf. KIIA 4.3/03) or 01212 (2011 trials; cf. KIIA

4.3/05). The respective LOQs for the 3 analytes were 0.01, 0.02, and 0.01 mg/kg (all in parent equivalents).

II. Findings

Validation of melon fruit was done within study 10-2185 (cf. KIIA 6.3.1.8/01) using method 01302 and within study 10-2074 (cf. KIIA 6.3.1.8/02) using method 01212. During the conductor the complete set of melon studies, concurrent recoveries of B&I 02960 and its metabolites DFA and DFEAF were obtained from samples of melon fruit, melon peel and not on pulp for complete originating from 2011. Samples of melon pulp are covered by the sample materials of fruit in the 2010 study. The chosen sample materials are representative of all sample materials of lected in these trials.

The recovery samples for parent and DFEAF is melos fruit were stiked as levels of 0.01 mg/kg and 0.50 mg/kg (expressed in BYI 02960 equivalents) for 2016 trials and at levels of 0.01 mg/kg in mg/kg and 2.0 mg/kg (expressed in BYI 02960 equivalents) for 2011 trials. Dean co-coveries were all within acceptable ranges (93-104% ASD) of the larger validations sets in >212.4-8.1%, n=07).

The recovery samples for parent and DFFAF in melotypeel were spiked at levels of 0.01 mg/kg and 0.50 mg/kg (expressed in BYI (2960 equivalents) for 2010 (Mals and at levels of 0.01 mg/kg, 0.10 mg/kg and 1.0 mg/kg (expressed in BYI 0.2960 equivalents) for 2011 trials. Mean re-coveries were all within acceptable range (91-106%, 1800s of the larger validation sets [182] 32 7.0%, n=1-5).

The recovery samples for paront and DFFAF in notion pulls were spiked at leachs of 0.01, 0.10, 0.50 and 1.0 mg/kg (expressed in BYIO) 960 Squivalents) for 201 Grials, Mean re-coveries were all within acceptable range (100-12%, RSDs of the larger validation sets [n>2] 3.0-9.3%, n=1-3).

Fortification levels for DFA in motion fruit week or 0.00 mg/kg, and 550 mg/kg (expressed in BYI 02960 equivalents) for 2600 trials, and were or 0.02 pg/kg, 0.20 mg/kg and 4.0 mg/kg (expressed in BYI 02960 equivalents) for 2011 trials. Meaning—coveries were all within acceptable ranges (93-102%, RSDs of the larger validations sets [n>2/2.1-70%, n=1-7).

Fortification by els for DFA in meron per were of 0.02 mg/kg, and 0.50 mg/kg (expressed in BYI 02960 equivalents) for 20 portials and wore or 602 mg/kg, 0.20 mg/kg and 2.0 mg/kg (expressed in BYI 02960 equivalents) for 2011 trials. Wean re-coveries were all within acceptable ranges (92-101%, RSDs of the 19 ger validations sets in 2126-8.0%, n=1-5).

The recovery scorples for DF vin me on purp were spiked at levels of 0.02 mg/kg, 0.20 mg/kg, 1.0 mg/kg and 2 Omg/kg expressed in BYI 02960 equivalents) for 2011 trials. Mean re-coveries were all within acceptable ranges (965-702%, RSDs of the larger validations sets [n>2] 2.6-4.7%, n=1-3).

Details of resolvery that are shown in table 6.3.1.8-4. All trial data are summarised below in table 6.3.1.8-3.2 b and in greater detail in the Tier 1 summary forms. (Residues of parent BYI 02960 as well as a metabolites DFA and DFEAF are expressed in BYI 02960 equivalents. From these individual values, the "total residue of BYI 02960" was calculated as the sum of these three analytes, expressed in parent equivalents.)



On day 0, immediately following the 2nd and final treatment, residue levels in melon/watermelon fruit were between 0.05 and 0.21 mg/kg (median 0.10 mg/kg). On day 3 — the envisaged PHI — the levels were 0.04-0.22 mg/kg, with a median value of 0.09 mg/kg.

The analytical results revealed that total residue levels often had not yet reached their highest levels at the nominal PHI (3 days). This was already indicated by the 2010 trial packages for other crops although peak residue values for melons were seen on day 3-5 in 3 trials as well. In order to ensure that the maximum relevant residue levels are captured, additional sampling was conducted and any days after treatment in the 2011 program; in those trips, the highest residue levels were seen or day 10 (2 trials), or day 14 (3 trials).

Maximum residue levels at any relevant sampling interval (2) day (post-application) over the complete set of trials ranged from 0.05-0.25 mg/kg/median 0.120ng/kg).

Residues were also determined in the whole pation of the fault. In 2010 residues in pure were either the same or slightly lower than those in the whole patit; in pulp, they ranged from 0.04.0.12 mg/kg (median 0.06 mg/kg, mean peeling factor 0.89, a=4), as opposed to 604-0.15 mg/kg (median 0.07 mg/kg) in the corresponding fruit samples. Again in 2011, residues in the pulp was somewhat lower than in the fruit. Appropriate samples were analysed on days 3.7 and 10; the mean peeling factors in the range of 0.7 kg).74 abeach interval in =5 per interval). Across all samples measured, the mean peeling factor was determined to be 0.75.

Evaluation of representativity:

As highest resource levels were seen at the tinal sampling interval of three trials (11-2074-02, -03, and -04, day 14), the entire set of rials was revaluated for its representativity.

In the 2010 package the residue maximum (at least a "plateau least a "plat

In 2011, a plan au level of peridues was again seen in the samples taken from at least day 10 onwards in trials 11,2074-01 and -95. The same pend is evided in the other three trials: Trials 11-2074-03 and -04. Thich yielded beak residues on day 14, showed minor increases in residues over time, 0.13 and 0.12 mg/kg on (kg, 10 to 0.16 mg/kg, and 0.14 mg/kg on day 14, respectively, the difference per sample interval being only 0.03 0.04 mg/kg. They are also within the scope of variability caused by sampling, biological, and/or analytical aspects. The peak residue value in trial 11-2074-02, 0.25 mg/kg, as also determined on day 14, the final day of sampling; this sample also reflects the highest relation to any trial. However, from day 7 on, this trial also seems to exhibit plateau behavious, evident in residue of 0.24, 0.24, and 0.25 mg/kg on days 7, 10, and 14, respectively. The residue of the plateau behaviour, there is little reason to believe that the residues in this trial would increase appreciably at any further interval.

When re-examining the previously mentioned trial nos. 11-2074-03 and -04 within a larger context, even if residues were to continue to increase after day 14, there is little indication that they would likely reach levels higher than the current HR value, and thus they will have little effect on the critical data used to evaluate and establish MRLs. Therefore, taken in the context of all of the trials, the trials can also be seen as yielding representative results.

Thus the trials as presented are considered to be valid and representative of the use described.

III. Conclusions (watermelon, southern European residue region)

In order to support the use in the EU of BYI 02960 in watermoon, 9 which trisls were conducted to the southern European residue region in the years 2010-2011 (40n meton and 5 on yearermelon). BYI 02960 was applied twice as an SL 200 formulation at an active substance rate of 25 g/km per treatment in 2010 and at an a.s. rate of 112.5 g/km n 2017, both of which support two intended use rate (112.5 g/km). The application intervals were 12 days. All applications were at the required rate, and all trials were conducted according 10 GLP.

Samples were taken immediate after the 2nd application and at several intervals thereafter, including the envisaged PHI of 3 days. They were applying for the relevant residues of BYI 02960, comprising the parent compound and its metabolites DFA and DFEAF. The residues of all three analytes were summed to yield a calculated "that a residue of BYI 02960". The results of the trans presented above demonstrate that:

- total residues of BY N2960 remained fairly constant in Sielon Vaterril on fruit between the final application and the nomical PHIO rom (evels of 0.05 o.21 new kg on day 0 after the final treatment to 0.04-0.22 mg/kg on day 3. The respective medical values were \$0.10 mg/kg and 0.09 mg/kg.
- analytical results evealed that total resource levels often had not yet reached their highest levels at the nominal PHR
- peak reside level at an relevant sampling interval (≥3 days post-application) ranged from 0.05 0.25 mg/kg (median 0.93 mg/g).
- despite the delay of attainment of the maximum residue levels, the trials reported here are considered to yield representative results so table for MRL evaluation.
- residue le@is in the edible portion of this commodity (pulp) were slightly lower than those in the whole wiit; over 19 pevant amples, an average "peeling factor" of 0.76 was elucidated.



Table 6.3.1.8-3a: Application scenario in residue trials conducted in/on **melon/watermelon**, after spraying with BYI 02960 SL 200 in the field (southern EU residue region)

| | ayıng witii biri | 1 | 1 | · | | 1 | · | ^ . |
|--|----------------------------|-----------|-----------------|----------------|-----------------|----------------|----------------|------------|
| Study No. (Trial No.) | | | | Application | l | | | |
| Country | | | | | | | | D' |
| Location | Crop | FL | | kg/ha | kg/b | GS 4 | O PHI | |
| Location | Variety | 112 | No. | (a.s.) | kg/hk (a.s.) | | PHIO (days) | |
| Region | | | | | 4 | S S | | ð |
| Year | | | , | ₽ _A | 0.0139 | | | 7 |
| 10-2185 | melon, | 200 SL | 2 🔻 | 0.125 | © 0.0139 | Ö87 | 30 | . C |
| (10-2185-01) | Seda | | | اً م | ₩ . | , y | | , O |
| Spain | | | "Č ^y | 5 | | ~~ | | 1 |
| | | | | ~~ | | | | |
| EU-S | | | | | | | | |
| 2010 | | \$ | | | | \$ ** | w' | |
| 10-2185 | melon, | 200 SL | V | 0.10 | 07,0200 | * | 3 4 | |
| (10-2185-02) | Mambo | 200 SL | | | 90.0208 | 000 | | |
| Italy | | | | | | | | |
| | | | | | | | 0 | |
| | ~ (° | D* %' | Z (| | | |) | |
| EU-S | Q, | 200 SL | | 0.125 | 0.0208 | | | |
| 2010 | <i>On</i> | | | | | | | |
| 10-2185 | melon Felin | ~√200 SL | <i>'O'</i> | 0.12 | 0.0208 | 8 | 3 | |
| (10-2185-03) France | Feling (typical of region) | | \$ 0 | , 4 % | Y . Q | Ò | | |
| Trance | region) | | | | | Ų [*] | | |
| EU-S | | | Q" . | | | ľ | | |
| 2010 10-2185 (10-2185-04) Portugal | ragion) | | | Ø.125 | 0.0208 | | | |
| 10-2185 | mellon. | 280 SL | 200 | Ø.125 e | 0,0208 | 85 | 3 | |
| (10-2185-04) | Lusitano | | | | | | | |
| Portugal | white | | | | ₩ ' | | | |
| 4(())* | melow) | , × | | | | | | |
| | | A 8 | | l w . ~ | | | | |
| ELL C | | | S ; | | | | | |
| 2010 | | | | | | | | |
| EL Company | | | | W.125 | | | | |
| FL = formulation | | | in stage (BB | code) at las | st treatment | | | |
| EU-S = southern European | of idue region | | | 7 | | | | |
| Q C | | | | | Con | tinued on no | ext page | |
| | | | , « | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | Q S | * | | | | | |
| | | O S | | | | | | |
| | | , Y | | | | | | |
| EU-S 2010 10-2185 (10-2185-04) Portugal EU-S 2010 FL = formulation EU-S = southern European | | ~O | | | | | | |
| | | A | | | | | | |
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Table 6.3.1.8-3a (cont'd.): Application scenario in residue trials conducted in/on melon/watermelon after spraying with BYI 02960 SL 200 in field (southern EU residue region)

| Study No. | | | | Application | ı | | |
|---|--|---|--|----------------------|----------------------|------------|----------------|
| (Trial No.) | | | | | | | |
| Country Location | Crop | FL | No. | kg/ha | lra/h | GS 4 | © PHI |
| Location | Variety | FL | NO. | (a.s.) | (2 S | US & | (days) |
| Region | | | | (a.s.) | kg/hk (a.s.) | | PHI (dass) |
| Year | | | | > _A | | i N | |
| 11-2074 | watermelon | 200 SL | 2 | 0.113 | 0.0225 | Cn25 | |
| (11-2074-01) | | | | | ₩ | | Q (|
| Portugal | Crinson- | | 4 W | 4 | (0 | | |
| | sweet; | | | , *\forall \tag{\pi} | | | |
| EU-S | Striped | | \bar{\bar{\bar{\bar{\bar{\bar{\bar{ | ~ ~ | | | |
| 2011 | | <u> </u> | ِ <u>۾</u> | | | | & ' |
| 11-2074 | watermelon | 200 SI | <u> </u> | 0 140 | 00000 | -\$6 | 3 4 |
| (11-2074-02) | watermeron | 200 SL | | | 90.0223 | | |
| Italy | Caravan; | 200 SL | | | , O' | | |
|) | Typical | O' L'Y | (| | | | O |
| , | | 24 1 | | | 0.0161-0 0.0161-0 | |) D |
| EU-S | Region | 109 | | | | | 1 |
| 2011 | | ∑ | | | L 20 . (| | |
| 11-2074 | watermion | ~200 SL | Ø, | C 0.11 | 0.0161-0 | 7 2 | 3 |
| (11-2074-03) | &" & | | 4 ° | · 4 % | 0.0188 | | |
| Spain | Azabache O | 7200 SL | | | | | |
| | hybrid, dark | | ~ Ø | | | 7 | |
| EU-S | bark with | | | | | | |
| 2011 | seeds0 | | | @u112 | 0.0188 | 0.1 | 3 |
| (11-20/4 | wavermeloo | ZWO SL | ,20 | Ø.113 | 0,0150 | 81 | 3 |
| (11-20/4-04) | Vanity: Red | | | | Z" | | |
| | | (%) | | | No. | | |
| | , Q | \$ \(\text{\(\text{\) \exiting \ | | | 1 | | |
| | | | | | | | |
| EU-S 😂 👡 👢 | | | , O _A , * | J" | | | |
| 2011 | | , O, × | 7 & | Š | | | |
| 11-2074 | watermeton | 200 SL, O | 20 | >0.113 | 0.0150 | 85 | 3 |
| (11-2074-05) | | | \$ | Ş | | | |
| Spain | Huelva | | | J. | | | |
| 4 | | | | | | | |
| FILS O | | | `% | | | | |
| 2011 | | | | | | | |
| I - formulation | The state of the s | CIOnda) SE | Yout treatme | at . | | | |
| II S = southern Europeen re | | oc rescoure) and | sast irealine | iit | | | |
| | sidue region | | | | | | |
| | | 7 Y | | | | | |
| | | Ą į | | | | | |
| EU-S 2011 11-2074 (11-2074-04) Italy EU-S 2011 11-2074 (11-2074-05) Spain EU-S 2011 L = Cormulation GS = g CU-S = southern European ro | | • | | | | | |
| J Z A | <i>J</i> Ţ | | | | | | |
| | | | | | | | |
| | Ž. | | | | | | |
| | | | | | | | |
| | | | | | | | |



Table 6.3.1.8-3b: Results of residue trials conducted in/on melon/watermelon after spraying with BYI 02960 SL 200 in the field (southern EU residue region)

| Study No. | | | Re | esidues (mg/kg) exp | pressed as BYI 029 | 60 |
|--|-----------------------|--|---|------------------------------------|--|---|
| (Trial No.) | Portion | DALT | | | BYI 02960- | |
| Country | analyzed | (days) | BYI 02960 | difluoroacetic | difluor | total residue of BYI (C960 case) |
| GLP | | • • | | acid | ethylamino- furanone | BY1 02960 cat |
| 10-2185 | fruit | 0* | < 0.01 | 0.02 | .01 | , 0 0,0 |
| (10-2185-01) | | 0 | 0.02 | 2 02 | €0.01 | \$\times \times |
| Spain | | 1 | < 0.01 | 3.02 | ©" <0.01 | 0.04 Ø' |
| | | 3 4 | 0.01 <0.01 | <0.02 0.03 | <0.01 <0.01 | 0.04 |
| GLP: yes | | 7 | 0.01 | 0.03 | <0.01 ₂ | 1. * 0005 01 |
| | peel | 3 | 0.02 | <0.02 | <0.00 | 0.05 |
| | pulp | 3 | 0.01 | 0 0 0 0 0 | 70.01 | 0.04 |
| 10-2185 | fruit | 0* | 0.04 | 0 × 4 06 Q | 4 <0.Q* | 0.08 |
| (10-2185-02) | nuit | 0 | 0.07 | 0.050 | | 0.12 |
| Italy | | 1 | Ø.07 (~~) | 0.04 (| Ø.01 S | |
| | | 3 | Q.0.05 | | Ö<0.01 | 0.15 |
| GLP: yes | | 5 7 | 0.05 | 9.13 | <0.05 | ©0.18 |
| , | | | Q* 0.02 | 0.13 | | 0.17 |
| | peel | 3 | y 3.07 6 | | Ø .01 O | 0.15 |
| | pulp | 3 | \$\langle \langle 0.00 \text{\$\infty} | ⊘ 0.10 ♦ | | 0.12 |
| 10-2185 | fruit | ************************************** | 0.02 0.05 0.06 | | Ø.01 | 0.07 |
| (10-2185-03) | * | | © 0.050 © 0.06 | ~ .0 ⁹ / ₅ & | <0.010) | 0.11 |
| France | S | 100 | 0.06 | 7.05 O' | | 0.12 |
| | | \$\frac{3}{5}\$ | | 0.06 | <0.01 L | 0.09 0.12 |
| GLP: yes | | 0°7 4 | 0.02 | | ×0.01 | 0.12 |
| | peel | | 0.06 | 9.06 | <0.01 | 0.13 |
| | pulp | 3 4 | 0.01 | | < 0.01 | 0.07 |
| 10-2185 | fruit | 2 | <0.00 | 0.02 | < 0.01 | 0.04 |
| (10-2185-04) | fruit | ₹Õ, | ,0 <u>9</u> 2 & | 0.02 | < 0.01 | 0.06 |
| Portugal | | | y.02 0° | | <0.01 <0.01 | 0.05 0.05 |
| | | | | S | <0.01 | 0.05 |
| GLP: yes 🛛 🚜 | | | ~ <0.9/1 · ~ | 0.03 | < 0.01 | 0.05 |
| | peel | 3 3 | 2.03 | 0.02 | <0.01 | 0.06 |
| | pulp | 3~ | <0.0 | 0.03 | <0.01 | 0.05 |
| DALT = days aff * prior to last tre | ter last treatmationt | | | | Continued o | n next page |



Table 6.3.1.8-3b (cont'd): Results of residue trials conducted in/on **melon/watermelon** after spraying with BYI 02960 SL 200 in the field (southern EU residue region)

| Study No. | | | Re | esidues (mg/kg) exp | oressed as BYI 029 | 60 0 |
|---|------------------|-------------------------|---|---|--|--|
| (Trial No.) Country GLP | Portion analyzed | DALT (days) | BYI 02960 | difluoroacetic acid | BYI 02960- difluor ethylargno- furanone | total residue of BYI (2960 case) |
| 11-2074 (11-2074-01) Portugal GLP: yes | fruit | 0 3 7 10 14 | 0.030 0.022 0.010 0.010 0.011 | 0.057 0.068 0.073 0.10 0.11 | 0.01 0.01 0.01 0.01 0.01 0.01 | 0 0 0 7 0 0 0 0 0 0 0 0 0 0 0 0 0 0 1 3 0 |
| | peel | 3 7 10 | 0.040 0.017 0.027 | 0.095 0.096 0.120 | 0.01% 0 <0.01% <0.01 | 0.15 0.12 0.16 0.16 |
| | pulp | 3 7 10 | <0.01 <0.01 <0.01 | 0,450 0,050 0,069 | 0.01 <0.01 <0.00 | 0.070 0.070 0.0890 |
| 11-2074 (11-2074-02) Italy GLP: yes | fruit | 0 3 7 10 14 | 0.067 0.069 0.044 0.066 0.039 | 0.13 0.18 0.18 0.21 | 01 01 00 00 00 00 00 00 00 00 00 00 00 0 | 0.25 0.24 0.24 0.25 |
| GLF. yes | peel | 3 7 10 | \$\frac{16}{7} 0.16 \\ \frac{9}{0} 0.006 \\ \frac{4}{0} \\ \frac{1}{0} 0.006 \\ \frac{1}{0} | 0.00 0.22 00.21 | ©0.01 © <0.01 >0.01 | 0.34 0.33 0.29 |
| | pulp | 7 7 10 9 | 0.016 0.016 0.019 | 0.10 | ©.01 ©.01 © <0.04 | 0.13 0.16 0.18 |
| 11-2074 (11-2074-03) Spain GLP: yes | fru | 0 3 6 10 | 0.027 0.027 0.027 0.084 | 0.039 0.0589 0.10 0.14 | <0.01 | 0.076 0.090 0.13 0.13 0.16 |
| GET: yes | peel | 3 6 100 | 0.049 0.053 0.021 | 0.069 | <0.01 <0.01 <0.01 | 0.13 0.18 0.14 |
| v | pulo | 6 10 | 0010 J | 0.04 | <0.01 <0.01 <0.01 | 0.063 0.081 0.11 |
| DALT = days aft * prior to last tre | Plast tream | nent O | | | Continued o | n next page |



Table 6.3.1.8-3b (cont'd): Results of residue trials conducted in/on **melon/watermelon** after spraying with BYI 02960 SL 200 in the field (southern EU residue region)

| Study No. | | | R | esidues (mg/kg) exp | oressed as BYI 029 | 60 |
|--|------------------|-------------------------|---|----------------------------------|---|---|
| (Trial No.) Country GLP | Portion analyzed | DALT (days) | BYI 02960 | difluoroacetic acid | BYI 02960- difluor ethylargno- furanone | total residue of BYI 02960 cm |
| 11-2074 (11-2074-04) Italy | fruit | 0 3 7 10 14 | 0.031 0.021 0.011 0.010 <0.01 | 0.062 0.871 0.86 0.096 | (0.01 (0.01 (0.01 (0.01 (0.01 | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 |
| GLP: yes | peel | 3 7 10 | 0.042 0.015 0.022 | 0.080 0.092 0.11 | 0.01 0.01 0 < 0.01 | 0.12 |
| | pulp | 3 7 10 | <0.01 <0.01 <0.01 | 0.049 0.005 0.005 0.005 | 01 0.01 <0.01 | 0.069 0.085 0.077 |
| 11-2074 (11-2074-05) Spain GLP: yes | fruit | 0 3 7 10 14 | 0.01 1 -(0.01) -(0.01) -(0.01) -(0.01) | 0.058 0.059 0.079 0.074 | \$\begin{align*} \begin{align*} \begi | 0.08 0.066 0.079 0.11 0.094 |
| GLI. yes | peel | 3 7 10 | \$\frac{\\$01}{\\$0.01}\$ \$\langle \\$<0.01\$ \$\langle \\$<0.01\$ | 0.083 0.083 0.099 | <0.01 <0.01 <0.00 <0.00 <0.00 | 0.075 0.10 0.12 |
| | pulp | 3 3 7 7 100 | <0.01 <0.01 <0.01 <0.00 <0.00 | 0.037 | <0.01 <0.01 <0.0X | 0.057 0.069 0.083 |

DALT = days after last reatment
* prior to last treatment

The prior treatment



Table 6.3.1.8-4: Recovery data for BYI 02960 in melon/watermelon

| Study No. Trial No. | | Portion | a.s./ | | Fortifi- cation | | Recov | ery (% | o) | o ° | |
|--------------------------------|----------|----------|---------------------|----------------|--------------------|---|-----------------|----------------|----------|------------|---|
| GLP Year | Crop | analysed | metabolite | n | level (mg/kg) | Individual recoveries | Min | Max | Mean | RSD | Ĉ |
| 10-2185 | melon | fruit* | BYI 02960 | 6 | 0.01 | 93; 94; 95; 95; 98; 99 | 93 | 99 | 96 | 274 274 | Ö |
| 10-2185-01 to 10-2185-04 | | | | 4 | W. | 92; 92; 96; 102 | 92 | 102 🗶 | 96 | 4.95 | , |
| GLP: yes | | | | 10 | overall | O | 92 | 40 2 | | §3.4 ⟨⟨ | |
| 2010 | | | DFA | 6 | 20.02 0 | 94; 96; Q 7; 98; 1 08; 114 | ° 94 🍕 | | 101 | 7.9,0 | y |
| | | | | 4 10 | 0,50 oærall | 89@1; 92; \$8 | % 789 | 3 14 | 93 98 | 7.9 | |
| | | | BYI 02960- DFEAR | 6 | 0.01 | 86; 80, 92; 92, 96; 102 | 86 | 102© | 93 | 6.5 | |
| | | | | A 10 | Øveral) | 97;97;1 © ;107 | 93 86 8 | 907 107 - Ø | 96 & | 6.0 6.7 | |
| | melon | peel | SYI 02960 | 5 | 0.01 | 87.50; 93.0° | 80 | 25 | 925 | 3.6 | _ |
| | | Z, | 1 10 10 | 3 | Ø.50 A | 94; 97 900 | 94 | 100 0 | 97 | 3.1 | |
| | | , Q | DFA & | 8 Å | overall 0002 | 00002:05 | \$7Q ~@n | 100 | 94 98 | 4.3 8.0 | _ |
| | | | | N. C. | | 02; 109 | | S S | | | |
| | | | | 3 (8) | 0.50 v ovædl | 89; 9 0; 94 | 89 | 94 109 | 92 95 | 2.7 7.1 | |
| | | | BYI 02960 DEAF | ¥5 «/ | 7 .01 | \$7; 89 3 9; \$92; 92; 92; | 87 | 97 | 91 | 4.3 | _ |
| Ö | | | | .300 | 0.50 | 93,05; 10,0 | 93 | 101 | 96 | 4.3 | |
| *also cover melo | on pulp | | | P8 (| overall | | 87 | 101 | 93 | 5.0 | |
| *also cover melo | | | BYI 02960 DEVAF | | | | | | Contii | nued on i | n |
| | Ç Û , | | | | | | | | | | |
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Table 6.3.1.8-4 (cont'd.): Recovery data for BYI 02960 in melon/watermelon

| Study No. | | | | | Fortifi- | | Reco | very (% | o) | Qı° > |
|------------------------|-----------------|----------------|---|-----|---------------|--|--------------------|-------------|----------|--------------|
| Trial No. GLP | Crop | Portion | a.s./ | n | cation | Individual | Min | Max | Mean | RS |
| GLI | СТОР | analysed | metabolite | | level (mg/kg) | recoveries | ð | WIAX | | A |
| Year | | | | | | | | | 4 | |
| 11-2074 | water- melon | fruit | BYI 02960 | 3 | 0.01 | 91; 99; 107 | 91 | 107 | 99 | 7 8.1 7 V |
| 11-2074-01- to | meion | | | 7 | 0.10 | 105; 94; 105, 108; 102; 56; 117 | ^y 94 | | 104 | |
| 11-2074-05 GLP: yes | | | | 1 | 2 .0 | 105 | 105 | √105 ¢ | | |
| 2011 | | | | 11= | overall | Y S | 914 | 117 | 103 | 3.7 - 4.6 |
| | | | DFA | | 0.02 | 97, 102, 404 | 97 V 7 | 104 | | 3.0 |
| | | | | 7 | © .20 | 0104; 193; 4 101, 004; 0 | j 98 Š | 104 ^ | 102 ≈ | 2.1 |
| | | | | | 48 | 100, 98; 104 | \(\tilde{\O}_3 \) | 0" (103 | | % |
| | | | | 11 | Sverall. | | 97 | 104~ | 102 | 2.3 |
| | | | BY002960 | 35 | 0.05 | 91091; 995 | | | 96 | 4.9 |
| | | <i>@</i> | | 7 | 0,10 | 004; 105, 93; 113; 101; | \$3 \$93 | \$13 % & | 503 | 5.7 |
| | | Z ^Q | | l r | 2.0 | 160 | 1230 | 100 | | |
| | | , Ø | | | everall | | × 1 / |) 13 | 100 | 6.5 |
| | water- | peel | BYL02960 | 3 | 0.010 | 100; 101; 109 | 100 | 109 | 103 | 4.8 |
| | melon | | | F | 0/18 | 100; 101; 109 94, 106; 77; 108; 94 | , Q4 | 108 | 102 | 7.0 |
| | Ĵ | | | 1 3 | 91.0 S | 103 | 103 | 103 | | |
| | | | | | ovesall | | 94 | 109 | 102 | 5.5 |
| <i>*</i> | Ů (| | DFA S | 3 | 02 | P02; 124, 98 | 98 | 104 | 101 | 3.0 |
| | Į | | DFA A BY 02960 A DIFEAR | 5 | 0.20 | 96; 1 9 0; 101; 98 9 5 | 95 | 101 | 98 | 2.6 |
| | | | £ . 69 . 4 | Y | Q,0 | \$2 | 92 | 92 | | |
| | J. | | | 9 | Queral (| , | 92 | 104 | 98 | 3.8 |
| | <i>a</i> , | | BY 02960 | 35 | 0.0 | 100; 102; 93 | 93 | 102 | 98 | 4.8 |
| 4 | ~ (| | INTEAR OF THE PROPERTY OF THE | 8 | 0,10 | 101; 106; 105; 111; 109 | 101 | 111 | 106 | 3.6 |
| | , | | | 100 | 1.0 | 95 | 95 | 95 | | |
| | ~ | | | Į į | overall | | 93 | 111 | 102 | 5.9 |
| | | | BY 02960 DIFEAR | 7 | | | | (| Continue | ed on next |



Table 6.3.1.8-4 (cont'd.): Recovery data for BYI 02960 in melon/watermelon

| Trial No. GLP | | | | | Fortifi- cation | | Reco | very (% | o) | <u>"</u> |
|------------------|----------|------------------|-----------------------|---------------|--------------------|--|-----------------------------|---------------------------------|------|-----------------------------|
| GLI | Crop | Portion analysed | a.s./ metabolite | n | level (mg/kg | Individual recoveries | Min | Max | Mean | |
| Year | | | | |) | recoveries | Ş | | 4 | |
| 11-2074 | water- | pulp | BYI 02960 | 3 | 0.01 | 96; 111; 94 | 24 | 111 | | |
| 11-2074-01- | melon | | | 3 | 0.10 | 101; 104; 98 | 1 9 8 | 104 | 01 | 3.0 |
| to 11-2074-05 | | | | 1 | 0.50 | 99 | 99 | 99 8 | | 3.0 |
| GLP: yes | | | | 1 8 | 1.0c oxCrall | 95 | 95 。94 | P11 | 100 | |
| 2011 | | | DFA | | | 91:400:96 | 2T | N/ AI | ١. | 5.6 2 4 3 7.6 |
| | | | 2111 | <i>i3</i> | 0.20° | 91;400; 96 10, 100, 101 44 93 | 150 150 994 93. | 105 | 96 Ø | 27.6 |
| | | | | OI | 0.20° | 34 S | ©94 1 | 105 94 | | 13 |
| | | | 4 | 1 | ©2.0 | 93 & | 93 | 93 🔘 | | |
| | | | | 8 | overali | | ~ <u>Q</u> | 216 216 1112 105 97 | 28 | .9 |
| | | | BYI 6960- 9 DFIOXF | 3 | 2 001 | 716; 108; 111 | \$\frac{108}{104} | Ø16 | 107 | © 3.6 |
| | | | | 3 7 | 0.10 | 111, 106; 10 | 1043 | 1115 | 107 | 3.4 |
| | | | | O' | | | \$ 7 % | 97 9 | | |
| | | S | | 8 4 | overall | | 978 | 116 C | 107 | 5.3 |
| | ı | , Ö | | | 6 105 | | | <u> </u> | | ı |
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| | | | | | | 91; A00; 96 (1) 100; 101 109 100; 100 101 100; 100 101 100; 100 100; 100 100 | | | | |

Greenhouse

| Report: | KIIA 6.3.1.8/03, 2012 | |
|----------------------------|--|--------------|
| Title: | Determination of the residues of BYI 02960 in/on melon after spray application of BYI 02960 SL 200 in the greenhouse in the Netherlands, Italy and Chain | Ô |
| Report No. & Document No.: | 10-2188, dated February 23, 2012 M-425792-01-1 | Ž, |
| Guidelines: | Directive 91/414/EEC, residues in or on treated products, food and feed EC Guidance working document 7029/VI rev. 5 | Ŋ, |
| GLP: | yes (certified laboratory); Deviations: none | <i>[</i> , (|

| Report: | KIIA 6.3.1.8/04, 2012 ° 5° 5° 5° 5° 5° 5° 5° 5° 5° 5° 5° 5° 5 |
|--------------------|--|
| Title: | Determination of the residues of BY1 2960 from wher melon after praying application of o |
| | BYI 02960 SL 200 in the gacenhouse in Span and Qaly |
| Report No. & | 11-2075, dated September 4, 2013 |
| Document No.: | M-437681-01-1 Q V V V V V V V V V V V V V V V V V V |
| Guidelines: | Directive 91/414/EIO, residues in Con treated products, food and Seed EC Guidance working document 7029/VI/95 rev |
| | TEC Guidance working document 7029/ v 1/93 leves |
| | US EPA OCSPP Guide the No. 360.15 9. SUPO applies only 9 11-24 5) |
| GLP: | yes (certified boratozy); Deviations on one & |

3. Ma@rials and M@hods

Nine residue trials were conducted in the greenhouse of follows:

In 2010, 3 trials were conducted in melons in the green class (in the Northerlands, Italy, Spain) to support the use of BYI 02960 SL 200 (2012, Kill A 63.1.8/03). Two applications were made at interval of 10 days at chomical rates 0.625 L/(ha/m), corresponding to 125 g/(ha/m) BYI 02960 a.s.; the water rate way 750 L/(ha/m), refecting local gractice of the trial regions. All treatments were made at the scheduled rates with the exception of the second application in one trial, which was underdosed by 7.7% (cominal rate: 1.95 L/(b/m) (0.55 L/(ha/m)), corresponding to 115 g/[ha/m] BYI 02960 a.g.), but well wothin the EUS randar acceptance criteria allowing a deviation of 25%.. In addition the higher application are used in 2000 was \$1\% higher than the rate to be registered, thus well within the EU's acceptance criteria for see pattern comparability.

Six further trials were carried on in 2017 in the greenhouse in watermelons (in Italy [4] and Spain [2]), to complete the data partiage (2012, KIIA 6.3.1.8/04). The basic application parameters were similar to hose, in 2010 two applications were made at intervals of 13-14 days at a nominal rate of (363 L0a, corresponding to 112.5 g/ha BYI 02960 a.s. (watermelon plants are not commonly cultivated into high plants in greenhouses, thus height adjustment was not considered to be necessary); we want rate was 500-900 L/ha, reflecting local practice in the trial regions. All treatment were made at the scheduled rates.

Samples of melon/watermelon fruit were taken immediately prior and subsequent to the second application, and at several intervals thereafter (up to 7 days after treatment in 2010 and up to 14 days

in 2011 trials). In addition, samples of pulp and peel were taken 3 days after the second application in 2010, and up to 9-10 days after the second application in 2011.

The envisaged PHI was 3 days.

The samples were analyzed for the parent compound and its metabolites DF Adind DFEAF using methods 01212 (cf. KIIA 4.3/05). The respective LOQs for the 3 analytes were 0.01 mg/gg, 0.02 mg/kg, and 0.01 mg/kg (all in parent equivalents).

II. Findings

Validation of melon fruit was done within study 10-2/85 (cf. KIIA 6.3.1 2011) using moth 10-10-10 and within study 10-2074 (cf. KIII 10-2074).

and within study 10-2074 (cf. KIIA 6.3.1.8/02) using method 01.0.2. During the condect of dec complete set of melon studies, concurrent recoveries of BYI (2960 and its motabolites DFA and C DFEAF were obtained from samples of melon fruit weel and pulp. The chosen winple waterial are representative of all sample material Ocollected in these trials

The recovery samples for parent and DEAF in melor fruit were so ked affevel of 0.00, mg/kg, 0.1 mg/kg and 1 mg/kg (expressed in BYI 0296) equivalents). Mean re-coveries were all within acceptable ranges (85-100%, RSIO of the larger Validations sets [n > 10.3 8.1%, n=1-5).

The recovery samples for pagent and DFEAF in polon per wer spike that levers of 0.01 mg/kg, 0.1 mg/kg and 1 mg/kg expressed in YI (\$\sqrt{9}60\) equivalents) for 2010 trials and at levels of 0.01 mg/kg, 0.1 mg/kg and 2 mg/kg (expressed in BYI 02960 equivalents) for 2011 tiplis. Overall mean re-coveries we all within acceptable ranges (87 403% overal RSDs 4.9-8.7%, n=3-2).

The recovery samples for parcox and FEAF in meton purpowere spiked at levels of 0.01 mg/kg, 0.10 mg/kg, 1.0 mg/kg (expressed in BYJ 02960 equivalents). Overall mean re-coveries were all within

vere 0.02 mg/kg, and 0.20 mg/kg and 2.0 mg/kg DFA h melon fruit (expressed in BYI 02960 Quiva Onts). Eweral mean re-coveries were all within acceptable ranges (89-94% Everall RSDs 7.9-12)

Fortilication levels for Doll in pelon pelo wer or 0.02 mg/kg, 0.20 mg/kg and 2.0 mg/kg (2010 trial), and were or 0.00 mg/kg, 0.2 mg/kg, and 4 mg/kg (expressed in BYI 02960 equivalents) for 2011 trials. coveries were all within acceptable ranges (89-95%, overall RSDs 8.9-10.0%, n=3-Overall mear O'é 5).

amples for DYA in melon pulp were spiked at levels of 0.02 mg/kg, 0.20 mg/kg, and 2. Comg/kg expressed in YI 02960 equivalents). Overall mean re-coveries were all within accepta Per ranges (90-97%, overall RSDs 7.1-15.5%, n=4-6).

Details of recovery data are shown in table 6.3.1.8-6. All trial data are summarised below in table 6.3.1.8-5a & b and in greater detail in the Tier 1 summary forms. (Residues of parent BYI 02960 as well as its metabolites DFA and DFEAF are expressed in BYI 02960 equivalents. From these individual values, the "total residue of BYI 02960" was calculated as the sum of these three analyses, expressed in parent equivalents.)

On day 0, immediately following the 2nd and final treatment, residue levels in melon/wa@rmelov fruit were between 0.085 and 0.23 mg/kg (median 0.10 mg/kg) On day 3—The envisaged HI—The levels were 0.069-0.21 mg/kg, with a median value of 0.16 mg/kg.

The analytical results revealed that total residue levels often had not yet cached their cak levels at the nominal PHI (3 days). This was already evident in the 2010 trials, in which peak residue values were seen on the final day of sampling, day 7 in 2 tries. In order to capture the paximum relevant residue levels, additional sampling was conducted 10 and 14 days after treatment in the 2010 program; in those trials, the highest residue levels were seen to day 14 in all 0 ix of the trials.

Maximum residue levels at any relevent sampling interval >3 days possapplication wer the complete set of trials ranged from 210-0.30 mg/kg (mg/lian).7 mg/gg).

Residues were also determined in the edible portion of the fruit. In 2019, residues in pulp were somewhat lower than those in the whole buit; it pulp, they ranged from 0.050.15 org/kg (median 0.11 mg/kg, mean peeling factor) 0.64, n=3). Sopposed to 16-0.17 mg/kg (median 0.17 mg/kg) in the corresponding fruit samples. Again in 2011, residues in the pulp were lower than in the fruit. Appropriate samples were analysed on flays 3, 7, and 39, the dean peeling factors ranged from 0.75-0.82 at each interval (n=6 per interval). Across all camples measured, the mean peeling factor was determined to 6.77.

Evaluation of representativity.

As highest residue evels were son at the final amplog interval of eight trials (10-2188-02 and -03, day 7; and 11-2075, allorals, by 14 othe entire second trials was re-evaluated for its representativity.

In the 2010 package, peak residues were determined to the scheduled PHI (3 days) in trial 10-2188-01. In trials 10-2188-02 and 03, residue levels increased slowly from the PHI to the final sampling event (day 7). In 2011, the strend was also evident, with fairly "flat" yet slowly increasing levels up to the final sampling interval (day 14), in all trials.

Given these conditions, the highest measured residues – generally the final sampling interval – will be chosen from each trial for MRL calculation. Further evaluation of the effects of the increasing residues on the calculations will be made in the appropriate chapter (KIIA 6.7.2).



III. Conclusions (watermelon, greenhouses)

In order to support the use in the EU of BYI 02960 in watermelon/melon, 9 trials were conducted as the greenhouse in the years 2010-2011. BYI 02960 was applied twice as an SL 200 formulation at an analysis of the greenhouse in the years 2010-2011. active substance rate of 125 g/(ha×m) and 112.5 g/ha per treatment in 2010 and 2011, respect vely both of which support the intended use rate (112.5 g/ha). The application intervals were 2010 and 13-14 days in 2011. All applications were at the required rates, and all trials were according to GLP.

Samples were taken immediately after the 2nd application and at several interval other earlier, in Our the envisaged PHI of 3 days. They were analyzed the relevant residues of by I 0250, comprise the parent compound and its metabolites DFA and DFEAF. The residues of all three analytics summed to yield a calculated "total residue of YI 02/60" The results of the tries presented above demonstrate that:

- total residues of BYI 02960 remain a quite constant, even incre Sing stightly of watermelor melon fruit between the final application and the nominal Phil from eve after the final treatment to 0.06\(\mathbb{Q}' 0.21\) mg/kg on da 3. modian values were 0.10 and 0.16 mg/kg, respectivel
- analytical results revealed that that the first due levels generally had not yet reached their highest levels at the nominal PHI. In most trials, total residues contine to increase over the sampling period, with the final samping in rival selding the highest residues.
- residue levels in the dible fortion of this commodity (wilp) were slightly lower than those in the whole fruit; over a relevant samples, as average "peeling factor" of 0.77 was elucidated. peak residue lovels at any relevant samphing -apprication) ranged from 0.10-



Table 6.3.1.8-5a: Application scenario in residue trials conducted in/on **melon/watermelon**, after spraying with BYI 02960 SL 200 in the greenhouse

| spr | aying with B | YI 02960 S | SL 200 in | the greenhouse | | | | |
|-------------------------|-------------------|--------------------------------|------------|--|----------|--------------|----------|----|
| Study No. (Trial No.) | | | | Application | | | | |
| Country Location | Crop Variety | FL | No. | kg/ha (a.s.) | kg/G/ | GS & | PHIO | O' |
| Region Year | | | | ۵. | | © 81 g | | Q |
| 10-2188 (10-2188-01) | melon, Haon | 200 SL | 2 | 0.00 (0.125 kg/[ha×xxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxxx | 0.0167 | 81 | | |
| Netherlands | | | | | | 4 | | ¥ |
| | | | Q | | | | | |
| Greenhouse 2010 | | Ē. | | | | | | |
| 10-2188 (10-2188-02) | melon, Talento | 200 \$ | | 0.250 g/[ha h]) 0.1250 g/[ha h]) 0.251-0.250 (0.115 - 0.125 kg/[ha×m]) | 0.0067 | 81 | | |
| Italy | (Clause) | | | | | | | |
| Greenhouse 2010 | A Q1 | ¥ Ø | | | | | | |
| 10-2188 (10-2188-03) | melon. Jucar | 200 SI | | 0.23\(\frac{1}{2}\)-0.25\(\frac{1}{2}\) | 0.0167 | Ŏ <u></u> 89 | 3 | |
| Spain | y a | | | 0.125 kg/[ha×fh] | | | | |
| Greenhouse | | | <i>J</i> | | | | | |
| FL = formulation | | $\langle GS = \hat{g} \rangle$ | Wwth stage | (BBCH-code at last) | reatment | | | |
| | | 0' 4'0) 4 | | | Conti | nued on ne | ryt naoe | |
| | | | | (BBCH-code at last | Conti | | puso | |

GS = grwwth stage (BBCH-code) at 1



Table 6.3.1.8-5a (cont'd.): Application scenario in residue trials conducted in/on **melon/watermelon** after spraying with BYI 02960 SL 200 in the greenhouse

| Study No. | | | | Application | | | O) | 1 ৯ |
|--|---|--|--|---|------------------------------|--|--------|---------|
| (Trial No.) | | | | Application | | | ., 🖓 | 2 |
| Country | | | | | | | | D' |
| Location | Crop | FL | | kg/ha | lra/bl | GS & | © PHI | |
| Location | Variety | FL | No. | (a.s.) | kg/hk (a.s.) | ds 4 | (days) | |
| Region | | | | | (a.s.) | Ş | | r Ta |
| Year | | | | | | | PHIO | 1 |
| 11-2075 | watermelon | 200 SL | 2 | 0.113 | © 0.0125 | \$ \$88 \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ | | Q. |
| (11-2075-01) | watermeron | | | 0.113 | 0.0123 | ©88 \$ | | 4 |
| Spain | Fashion; | | \$ | | | | | |
| Spain | Black | | 4 | \mathbb{Q}^{r} | ~ ~ | | (| ľ |
| | | | 00° | ~ · | W Z | NO ^y & | | |
| Greenhouse | | | | \ \@'\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | . O | | 19 | |
| 2011 | | | | | | | , W | |
| 11-2075 | watermelon | 200.81 | 3 | 0.103 | 0 0141 | Å o | 3 4 | |
| (11-2075-02) | | 200 SL | | 0.10 | 0.0141 0.0141 7.0.0141 | | 3 4 | |
| Italy | Melania; | | y" | | | | | |
| | Typical of | | | | | | Õ | |
| | 41 | | | 9 . 0 . | | | 0 | |
| | the region | 1 "0" . | \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | | | [\$. V | | |
| Greenhouse | ~ | | | | ~ | | | |
| 2011 | | | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ | | | | | |
| 11-2075 | watermelor | 2000 SL | £, 2 @ | 0.113 | 0.012 | ». 81 | 3 | |
| (11-2075-03) | b O | | | 0.173 | 0.0125 | | 3 | |
| Spain | Motril; | | * | | | 7 | | |
| | White | | | 0, % | | | | |
| | | ¥ @; | \$ 1 | | | | | |
| Greenhouse | | | | | | | | |
| 2011 | | | | \$. T | | | | |
| Greenhouse 2011 11-2075 (11-2075-04) Italy | watermelon | 200 SL | «J ² 2 » | 0.133 | 0.0141 | 72 | 3 | |
| (11-2075-04) | | * | | | | | | |
| Italy 💸 | Sentinel; | | * | | | | | |
| | Typica Cof | | | | | | | |
| • | the region | | 0' * | Y .~ | | | | |
| | | \ \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | | A " | | | | |
| Greenhouse | 1 Q | | | 8 | | | | |
| 2011 | Sentinel; ypical of the region watermelon | | \$ | 0.113 | | | | |
| 11-2075 | watermelon | 260 SL | 2 ~ | 0.113 | 0.0226 | 87 | 3 | |
| (11-2075-05) | | | | | | | | |
| Italy | top gun Fate variety | | , V | | | | | |
| I | variety | | | | | | | |
| | | | Ž | | | | | |
| Greenhouse | | Q = 5 | ľ | | | | | |
| 2011 | | 200 SL | | | | | | |
| 11-2075 | waternelon | 200°SL | 2 | 0.113 | 0.0161 | 83 | 3 | |
| (11-2075-06) | Omson Sweet Red | . O | | | | | | |
| Italy & | ©imson 🗸 | ~Q | | | | | | |
| I | Sweet Red | | | | | | | |
| Green House = | | | | | | | | |
| 2011 | | | | | | | | |
| | | | | | | | | |

FL formulation GS = growth stage (BBCH-code) at last treatment



Table 6.3.1.8-5b: Results of residue trials conducted in/on **melon/watermelon** after spraying with BYI 02960 SL 200 in the greenhouse

| Study No. | | | R | esidues (mg/kg) ex | 1 | 260 |
|---|----------------------------|--|-----------------------|---|--|-----------------------------------|
| (Trial No.) Country GLP | Portion analyzed | DALT (days) | BYI 02960 | difluoroacetic acid | BYI 02960- difluor ethylangio- furanone | total residue of BYI 00960 cas |
| 10-2188 | fruit | 0* | 0.07 | 0.02 | 101 01 | 0 10 |
| (10-2188-01) | Hart | Ö | 0.14 | 0.02 | €0.01 | 0.20 |
| Netherlands | | 1 | 0.09 | 4 | © <0.01 | |
| | | 3 5 | 0.09 0.06 | 0.07 0.06 | <0.01 <0.01 | 0.17 |
| GLP: yes | | 7 | 0.06 | 0.08 | <0.01.2 | 0.6 |
| | peel | 3 | 0.27 | 0.08 | <0.01 | 0.12 |
| | | | 4 . | | | |
| | pulp | 3 | 0.03 | \$ 0.05° | ©0.01 | 0.11 |
| 10-2188 | fruit | 0* | 0.03 | 06 | 4 <0.40° | 0.10 |
| (10-2188-02) | | 0 | 0.66 | 0.04 O | | 0.10 |
| Italy | | 3 | Q.10 (V | | 0.01 | 0.18 |
| GLP: yes | | 5 | 00.13 | y w3 ~0 | \$\sqrt{0.0} | N 2//2() |
| GET: yes | | 7 | \mathbb{Q}^{y} 0.12 | 0.17 | | 0.30 |
| | peel | 3 | | 0.155.03** | (00) (00) (00) (00) (00) (00) | 0.58/0.05** |
| | pulp | 3 | 0.020 | \$\frac{1}{2}\frac{1}{2 | | 0.15 |
| 10-2188 | fruit | × 0* .4 | 0.06 | 0.02 | Ø.01 | 0.09 |
| (10-2188-03) | ≪ | 0 \$ | ©0.10 O | | <0.010) <0.010) | 0.13 |
| Spain | Ş | | | 0,02 | 0 <0 0 1 v | 0.14 0.16 |
| CLD | | \$\frac{1}{5}\$ | | 0.05 | @ 01 | 0.16 |
| GLP: yes | | 7 4 | 0.12 | 0.05 0.05 | 20.01 | 0.19 |
| | peel \$ | <i>2</i> 0 | 0.2 | | <0.01 | 0.27 |
| . Q | nuln | ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ | | 0.04 | <0.01 | 0.06 |
| DALT = days af | ter last træstr | nent \ | | | \(\sigma_0.01\) | 0.00 |
| * prior to last tre ** residue in con | atment trol | 1 × | | | | |
| | | \bar{\bar{\sigma}} \sigma \bar{\sigma} | | | | |
| ~ | | , O | | / % | Continued o | on next page |
| کے | v | | 9 49 8 | , Ø | | rem p 4.8e |
| Q [*] | . (| | | * | | |
| 2 | | . × | | , | | |
| | $\mathscr{O}_{\mathtt{A}}$ | | | , | | |
| 4 | | "O" (C | | | | |
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| | | | | | | |
| DALT = days aff * prior to last tre ** residue in con | | | | | | |



Table 6.3.1.8-5b (cont'd): Results of residue trials conducted in/on **melon/watermelon** after spraying with BYI 02960 SL 200 in the greenhouse

| Study No. | | | Re | esidues (mg/kg) exi | pressed as BYI 029 | 060 Ø 8 |
|-------------------------|----------|----------|----------------------------------|---------------------------------|---|--|
| (Trial No.) | Portion | DALT | | | BYI 02960- | |
| Country | analyzed | (days) | BYI 02960 | difluoroacetic | difluor | total residue of BYI © 960 cm |
| GLP | | | | acid | ethylantino- furanone | BYI 02960 c |
| 11-2075 | fruit | 0* | <0.01 | 0.044 | <# style="background-color: blue;">1017anone | |
| (11-2075-01) | Hult | 0 | 0.052 | 0.044 | £0.01 | |
| Spain | | 3 | 0.012 | 47 | 0.01 | 3069 0 |
| | | 5 7 | 0.014 0.012 | 0.047 \$0.087 | <0.01 <0.01 | 0.11 |
| GLP: yes | | 9 | < 0.01 | 0.082 | <0.01 °C | 0.10 |
| | | 14 | <0.01 | 0.11 | 20.01 Q | 0.13 |
| | peel | 3 | 0.033 | 0.072 | <0.0 | \$\int_0.12 \ |
| | | 7 9 | 0.028 4 0.020 0 | 0.13 | <0.01 <0.01 0.01 | 0.25 |
| | pulp | 3 | <0.01 | 0 ×0\(\text{\$Q\$}\) | <0.01 | 9046 ay |
| | Pulp | 7 | <0.01 | ~0.058 ₀ | <0.00 | 0.078 |
| | | 9 | <0001 | @°0.068\/ | y <0,71 °C | 0.085 |
| 11-2075 (11-2075-02) | fruit | 0* 0 | 0.028 | 0,049 | 0.01 | © 0.087 |
| (11-2073-02) Italy | | 3 | 0.040 | 20.051 20.051 | 0.00 <0.00 0.00 0.00 0.00 0.00 0.00 0.0 | ×0.094 |
| | | 5 7.~ | , 0.529 ° | 0.0500 0.000 | | 0.097 0.11 |
| GLP: yes | | 10/ | 2.025 0.02 \$ \$ | 0.081 | \$\langle 0.01 \\ \&\langle 0.01 \\ \\ \&\langle 0.01 \\ \\ \&\langle 0.01 \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ | 0.11 |
| | | 14 | 0.02 | © :11 | (0.01°) (Q | 0.14 |
| | peel | ×3 4 | 0.087 | 0.050 | | 0.15 |
| | L | 7 5 | > ≥0.049 0° ≪20.061 4 | 0.00 | <0.01 0) | 0.15 0.18 |
| | | e 2 | | \$0.040@r | 0 < 0.01 | 0.060 |
| | Poles . | 0 7 % | <0.40 <0.40 <0.41 <0.41 | 0.07 | V 20 1 | 0.091 |
| | | 10 প | ©0.01 × | 0.056 | ×30.01 | 0.076 |
| 11-2075 | fruit | | 0<0.01 | 0024 | <0.01 | 0.044 |
| (11-2075-03) Spain | | √ 3 × | \$\frac{0.050}{27}\$ | 0.030 | <0.01 <0.01 | 0.089 0.071 |
| Spani | | 55 | 3.014 | \$ 0,004 | < 0.01 | 0.068 |
| GLP: yes | | | 0.016 | 0.057 \$0.045 \(\text{D} \) | <0.01 <0.01 | 0.078 0.065 |
| | | 14 (| \$\frac{1}{2}\text{.01} | 0 0.081 | <0.01 | 0.10 |
| | peel | 3.\$ | ∑00.061×√ | Q 0. Q 0 | < 0.01 | 0.12 |
| all | peel | | 0.020 | D* 0.0074 | < 0.01 | 0.11 |
| 4 | | | | 30.065 | <0.01 | 0.10 |
| | pulp | 3 S | | 0.035 | <0.01 <0.01 | 0.055 0.069 |
| | | | <0.01 | 0.054 | <0.01 | 0.074 |
| DATA 1 | | | | 1 | 1 | |

DAIA = days after last treatment
* prior to last treatment



Table 6.3.1.8-5b (cont'd.): Results of residue trials conducted in/on **melon/watermelon** after spraying with BYI 02960 SL 200 in the greenhouse

| Study No. | | | R4 | | pressed as BYI 029 | 60 ° > |
|----------------------------------|------------------|------------------------|----------------------------------|--------------------------------------|---|--|
| (Trial No.) Country | Portion analyzed | DALT (days) | BYI 02960 | difluoroacetic acid | BYI 02960- difluor ethylaryno- | total residue of BYI 62960 cas |
| | 2 | 0.1 | 0.010 | 0.10 | furanone | |
| 11-2075 (11-2075-04) Italy | fruit | 0* 0 3 5 7 | 0.019 0.073 0.044 0.049 | 0.12 0 & 1 0 & 2 0.11 | (0.01 (0.01 (0.01 (0.01) (0.01) | 0.15 7 0.17 3.17 9.17 |
| GLP: yes | | 10 14 | 0.034 0.024 0.022 | 0.16 0.21 0.24 | <0.01 <0.01 0.01 0.01 0.01 | Q 0.20 0.20 0.27 0.27 |
| | peel | 3 7 10 | 0.076 0.066 0.042 | 0.13 0.22 0.28 | \$\frac{0.0}{\$0.01}\$ | \$\int 0.22 \\ \gamma 0.29 \\ \gamma 0.34 \\ \gamma |
| | pulp | 3 7 10 | 0.014 0.014 0.012 | 0 0 2 0 14 0 0 0.15 4 | <0.01 <0.00 <0.00 | 0.16 0.17 |
| 11-2075 (11-2075-05) Italy | fruit | 0* 0 3 5 | 0.04@ 0.033 0.033 0.033 | 9 0.16 9 0.16 9 0.19 9 0.21 | \$0.01 \$\frac{1}{2}\$ <0.0\$ \$\frac{1}{2}\$ \$\fr | 0.18 0.23 0.21 0.23 |
| GLP: yes | peel | 7 16 14 | 0.024 0.026 0.015 0.078 | 0.24 0.24 0.28 0.18 | <0.01 O <0.01 <0.01 | 0.23 0.24 0.26 0.30 0.27 |
| | peer 4 | 100 | 9.044 9.044 90.029 | 0.10 | <0.01 <0.01 <0.01 <0.01 | 0.30 0.33 0.19 |
| 11 2075 | | 077 | 0.012 0.012 | 0.192 | 0.01 0.01 | 0.21 0.22 |
| 11-2075 (11-2075-06) Italy | fruit | 3 4 5 \$ | 0.01% 0.041 0.021 0.037 | 0.060 0.060 0.067 | <0.01 <0.01 <0.01 <0.01 | 0.059 0.085 0.098 0.12 |
| GLP: yes | peel 2 | 10 14 14 | 0.025 0.00 0.025 | 0.71 | <0.01 <0.01 <0.01 | 0.15 0.14 0.16 |
| ~ ~ <u>~</u> | pulp | | 0.0350 | 0.456 0.093 0.11 0.055 | <0.01 <0.01 <0.01 <0.01 | 0.095 0.14 0.16 0.075 |
| | Purh | 7.0 | 0.01 | 0.093 0.084 | <0.01 <0.01 <0.01 | 0.073 0.11 0.10 |

DAIN = days after last treatment
* prior to last treatment



Table 6.3.1.8-6: Recovery data for BYI 02960 in melon/watermelon

| Study No. | | | | | Fortifi- | | Reco | very (% |) | Ø, |
|---------------------------|-------------|----------|---|---------------|----------------------|---------------------------|---------------|------------------|------|------|
| Trial No. | Crop | Portion | a.s./ | n | cation | | | | | |
| GLP Year | Стор | analysed | metabolite | | level (mg/kg) | Individual recoveries | - Q | Max | Mean | RSD |
| 10-2188 | Melon | fruit | BYI 02960 | 1 | 0.01 | 81 | 387 | 81 | S | |
| (10-2188- | | | | 1 | 0.1 | 110 | √J¹10 | 110 % | } | |
| 01- to 10-2188- 03) | | | | 1 3 | overall | 982 | 82 81 | 825 190 | | 8.1 |
| GLP: yes | | | DFA | 1 | 2.02 | 78 | 。 78 | .○ 78 % | | |
| 2010 | | | | | 0.20 | | 1010 | 1010 | Z, | |
| | | | (| \$\frac{1}{3} | 2.0 o@rall | 890" | ₹ 78 ° | 39 301 | 89 | 12.9 |
| | | | BYI 02960-ADFEAF | | 0.01@ | 72 Q 100 A | 72 | 72© \$02 | | |
| | | | | 3 % | VI.0 Sverak | | 9 82 72 \$ | 82 | 85Q | 17.9 |
| | | peel | BYQ.02960 | ø Vi | 001 5.1 | 94° 0 ©04 Q | 94 9104 7 | 904 | | |
| | | , Q | | | l overall | 103 | 103 | 103 ^C | 100 | 5.5 |
| | | | | 1 4 | 0.20 | 100 0 | 1000 | 84 | | |
| | | | | √3 У3 | overall. | | 101 © 84 | 101 101 | 95 | 10.0 |
| | | | BYI 2960 DFEAF | 1 8 | 0.0% | 102 | 102 | 102 | | |
| | | 0' W | Drear | | 0,50 | 102 S | 108 98 | 108 98 | | |
| Ş | 7 | | | 3 | Overall | | 98 | 108 | 103 | 4.9 |
| • " | Ž, | pulp | DFA BOT 02900 DFA WYI 0290- DFEAF | * | 004 | 10 4 , 98; 99; | 98 | 104 | 101 | 2.6 |
| | Q An | | | 1 | 5 ⁶ 0.1 € | ÿ96 | 96 | 96 | | |
| | 4 | | | | | 97 | 97 | 97 | | |
| 2 | > | | 3 4 % | | ov Fall | | 96 | 104 | 99 | 3 |
| 4. | 4 | | DFA | 4 | 0.02 | 76; 89; 119; 90 | 76 | 119 | 94 | 19.4 |
| Ÿ | * | | | \$ | 0.20 | 105 | 105 | 105 | | |
| | (C) | | | 1 | 2.0 | 101 | 101 | 101 | | |
| | | | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ | 6 | overall | | 76 | 119 | 97 | 15.5 |
| A O n | | | ₩YI 02% ØFEAF | 4 | 0.01 | 88; 96; 90; 74 | 74 | 96 | 87 | 10.7 |
| | | A | | 1 | 0.10 | 92 | 92 | 92 | | |
| | | | | 1 | 1.0 | 91 | 91 74 | 91 96 | 89 | 8.6 |



Table 6.3.1.8-6 (cont'd.): Recovery data for BYI 02960 in melon/watermelon

| Study No. | | | | | Fortifi- | | Reco | very (% |) | On° . |
|---------------------|--------------------|--|---------------------|------------------|------------------|------------------------------|-------------------|--------------|-------------------------|------------|
| Trial No. GLP | Crop | Portion | a.s./ | n | cation | Individual | Min | Max | Mean | S SD |
| | | analysed | metabolite | | level (mg/kg) | recoveries | (|)* | | |
| Year | | C:4 | DVI 02060 | 2 | | 104.02 | 02 | 104 | 000 | |
| 11-2075 | water- melon | fruit | BYI 02960 | 2 5 | 0.01 | 104; 93 101; 105; | 23 4 177 | 104 109 % | 90 | |
| (11-2075- 01- to | | | | | | 101, 103, 109; 106; 77 | 1 | | | |
| 11-2075- 06) | | | | 1 8 | l oværall | 98 | 98 77 | 9 © | | Q0.3 (V |
| GLP: yes 2011 | | | DFA | 2 | 6 0.02 | 104: 94 | 94 🇳 | 104 | 199 | Ŵ |
| 2011 | | | | 5 ~ (%) () | 0.2 | 95@5; 93; 95,78 96 @ ~ | 78° | | 99 9 % 9 | |
| | | | | 1 8% | overally | | 789° | 0°96 0 | 94 | 7. S |
| | | | BYI 02967- | 2 | 001 | 90, 105 | | 104 | % 01 | |
| | | | DFEAR | 7 5 | 3 .1 | 108; 104; 96; | 78 | 113 | \$\frac{\psi_01}{100}\$ | 13.7 |
| | | | | B | 1 0 | | 10 | | | |
| | | N | | ® | o rall | | 9 ₇₈ 6 | | ₹100 | 10.6 |
| | water- melon | peel | BY 02960 | 2 | 0.01 | 94; 🔊 | 800 | 94 | 87 | |
| | meron | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ | | | | 80;91 | | \$0 \$0 | 86 | |
| | | | | 5 & | overall) | | 800 | 94 | 87 | 7.4 |
| | | | DOX 3 | 2 | | 7.094 | 26 | 94 | 85 | |
| | | | | ×2 | 0.2 | 3 5; 86€″ | 86 | 95 | 91 | |
| | | | | | 4 0 | 92 | 92 76 | 92 95 | 89 | 8.9 |
| °× | Ĉ | | ₩VI 020%0- | | over 11 | \$01.95 | 97 | 101 | 99 | 8.9 |
| ĘĢ [†] | | | DFEAT | 2 % | 0.1 | 109,92 | 92 | 109 | 101 | |
| | Ŝ |)' \%' | | K) | 20 | 114 | 114 | 114 | | |
| | Ŕ | | |) 15 | everall | | 92 | 114 | 103 | 8.7 |
| | ~© ↑ | | YYI 02960- DFEAR | | | | | | Contii | nued on ne |
| | | | | | Ş | | | | | |
| 4 | * | | | | , | | | | | |
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Table 6.3.1.8-6 (cont'd.): Recovery data for BYI 02960 in melon/watermelon

| Study No. Trial No. | | | | | Fortifi- | | Recov | very (% | o) | ÄSD Å |
|---------------------|----------|------------------|---------------------|----------------|-----------------|---|-------------|-------------|-------|--------------------|
| GLP | Crop | Portion analysed | a.s./ metabolite | n | cation level | Individual | Min | Max | Mean | RSD & |
| Year | | anaryscu | metabolite | | (mg/kg) | recoveries | | > | Mean | |
| 11-2075 | water- | pulp | BYI 02960 | 1 | 0.01 | 90 | 90 | 90 | | |
| | melon | PwiP | B11 0 2) 00 | 2 | 0.1 | | 90 092 | 95 | 94 | |
| (11-2075- 01- to | | | | 1 | 1 | 103 | 103 | 103 | | |
| 11-2075- 06) | | | | 4 | overall | 64 | 90 | 103 | 95 | \$.0 \$\times\$ |
| | | | DFA | 1 | 49. 02 | 95; 92 103 80 | .80 | 95 | * 6 | |
| 2011 | | | | 2 2 | 00.2 | 93;02 | 92 😽 | 930 | 93 | |
| | | | | Ø4 Ø4 | overall | | &) O80 1 | \$93 | 90 4 | 7.1 |
| | | | BYI 02960-ADFEAF | 1 🔩 | 00.01 C | 80 Q 93; 92; 93; 92; 93; 93; 94; 95; 91; 91; 91; 91; 91; 91; 91; 91; 91; 91 | 91 | 91 0 | 90 3 | |
| | | | DFEAF | 2 | | 92096 | 20° | | 24 | Š |
| | | | | | | * 03 | ¥03 | Ø/03 | |) |
| | | | | 4 | overal V | | 913 | 103 | 96 | 5.7 |
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IIA 6.3.2 Residue trials from the Global Joint Review partner countries Australia, Brazil, Canada, and the USA to support import tolerances

BYI 02960 is to be registered in USA and Canada for use as a soil or forar treatment in/on curus. The use pattern in North America is summarized in Table 6.3.2.1-1.

A total of thirty-four trials were conducted in citus orange, 6 trials in grapefruit trials in oranges (with foliar spray) were conducted to support the import folerance trials in Brazil The use patterns - corresponding to the intended GAPs are described below.

Table 6.3.2.1-1: Target Use Patterns for the Application of BY 102960 on Entrus

| | | | | arget R | te/Application | on (±5% | | D D | | | Spray V | Volume |
|---|----------------------|--------|------------|---------------|----------------|-----------------|-------------|-----------------|------------|-----------------|---------------|-----------------|
| | | | | rulate@ | Active | | | Target | | ** | | |
| | | | Produ | ict (fp) | Active | ibstanee | (a.s.Q," | App. | Target | Adjuvant | | |
| Application | Test | No. of | | | Name of | lb ^v | | Materval | PHI | ⊮Additive | | |
| Type | Substance | Apps | mL/A | fl oz/A | 305 | æs./A | g a.s./ha | y (Days) | (Days) | (% v/v) | GPA | LPHA |
| Foliar, Dilute | BYI 02960 200 SL | 2 | 4174.8 | 4 4.0 | | 0,10 | 205 | | 3 1 | 0.25 | 200– 300 | 1870– 2805 |
| Spray | 200 SL | | 414.8 | kl n° | ~ | | 0" | | 7 | | 300 | 2803 |
| Foliar, Ultra-Low Volume Spray | BYI 02950 200 STL | | 414.8 0 | 14.0 (14.0 | BY1 02968 | 0.1 8 | 20 3 | | 1 | 0.25 + 33.33 | 2.5–3 | 23–28 |
| Soil | BYI 02960 200 SL | | 829.6 | 28-1, | B 1 02960 | 0.366 | 410 | NA ¹ | 30 | 0.25 | 1 qt/ tree | 0.95 L/ tree |

NA = Not applicable.

| Report: | KRA 6.3.2.1/01; Egind La ; 2012 |
|-------------|---|
| Title: | BYI 02960 200 SL Magnitude of the Residue in/on Citrus (Crop Group 10) |
| Report No | RARVY012 rated June 27, 2012 |
| Document No | M_33259401-1 |
| Guidelines: | S: EPA Residue Chemistry Test Guidelines OPPTS 860.1500, Crop Field Trials |
| | Canada: PMRA DACO 7.4 Supervised Residue Trial Study |
| | PMRA DACO 7.4.2, Residue Decline |
| | GECD: Guidelines for the Testing of Chemicals, 509, Crop Field Trial, |
| (a) | PMRA DACO 7-2, Residue Decline QECD: Guidelines for the Testing of Chemicals, 509, Crop Field Trial, adopted Sep 7, 2009. |
| GLP S | Yes S |

Twenty-six field tries were conducted to measure the magnitude of BYI 02960 residues in/on grapefruit (six trials), lemon (eight trials), and orange (12 trials) (representative test systems for NAFTA Frop Group 10; Citrus Fruits) following either two airblast applications (diluted or concentrated spray) or one soil drench application of BYI 02960 200 SL. BYI 02960 200 SL is a



soluble concentrate formulation containing 200 g BYI 02960/L. The number and location of field trials conform to the guidance given by the EPA (Table 6.3.2.1-2).

Table 6.3.2.1-2: Trial Numbers and Geographical Locations for BYI 02960 in/on Citrus Fruits

| | | ^ | (0) |
|----------------------|------------------------|--------------|-----|
| NAFTA Growing Region | Submitted ^a | Requested 12 | |
| 1 | | | |
| 1A | Ö | | |
| 2 | | Q Q | |
| 3 | 403 203 | 12 | |
| 4 | | Q* . 12 | |
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| 5B | | | |
| 6 | | | |
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| To (a) | 26 | 23 | |

Ten of the 26 trials were decline trials tive in Region and five in Region 10). The additional decline trials were performed to meet 2U import tolerance requirements.

Material and Methods

Three use patterns/application forms were tested: either 2 dilute or 2 concentrated foliar airblast applications, or single soil dench. Endividual application rates ranged from 0.179 to 0.193 lb BYI 02960/A application (0.200 to 0.216 kg BYI 02960/ha/application) for plots with dilute airblast applications. For plots with ultra-low volume (concentrated) applications, individual application rates ranged from 0.157 to 0.200 lb BYI 02960/A/application (0.175 to 0.224 kg BYI 02960/A/application). The application rate ranged from 0.355 to 0.381 lb BYI 02960/A/application (0.398 to 0.327 kg BYI 02960/ha/application) for plots with a soil drench application. Seasonal application rates for all plots ranged from 0.344 to 0.381 lb BYI 02960/A (0.386 to 0.427 kg BYI 02960/ha).

All applications were made at growth stages ranging from BBCH 79 to 89 (BBCH 79: fruits about 90% of final size; BBCH 89: fruit ripe for consumption; fruit has typical taste and firmness; beginning of senescence and fruit abscission). The interval between the airblast applications was 700 12 days. For plots with dilute airblast applications, spray volumes ranged from 199 to 301 GPA (1867) to 2821 L/ha). For plots with ultra-low volume applications, spray volumes ranged from 2.2 (203.1) GPA (21 to 29 L/ha). For plots with soil drench applications, the applications were made in a volume of 1 qt (950 mL) per tree or in spray volumes ranging from 29 to 38 GPA (273 to 354 L/ha).

All applications were made using ground-based equipment. The adjugant Dyne-Amec, a typical non-ionic surfactant, was used in all of the applications. Applications to the "TRTDU" plots (New your applications) also included the adjuvant 435 Citrus Oil.

Trial Site conditions, including soil characteristics are summarized in Table 6.3.2 7-3. Study use patterns are summarized in Table 6.3.2.1-4

Table 6.3.2.1-3: Trial Site Conditions for BYk 02960 on Citrus

| | T | | | | | , Š U | |
|----------------------------------|--|----------------|--------------------------|-------------|---------------------|---------------------------|---------------------|
| T*-1 | Trial Location | K & Soil | | téristic | | Meteorolo | giçal Datab |
| Trial Identification; Crop | (City, Country/State Year) | Type O | QM Q%) | SH A | CEC Omeq/100g soil) | Total Bainfall (in) | Temp. Range (°F) |
| RV152-10DA Orange | , FL (2010) | Pavares | Q W | 4,7 | \$1.8 J | \$2.26 | 27–91 |
| RV153-10DA Orange | 2011 | Candler Sand | 1.5 | 7.9 ** | 6 3 | 10.36 | 30–90 |
| RV154-10DA Orange | , FL , V , V , V , V , V , V , V , V , V , | & Sand | Ž1.1 Č | \$7.4 | 4.45 | 2.74 | 40–78 |
| RV155-10HA Orange | , FL & | Sand S | 196 | 6 ,9 | 6.7 | 2.62 | 40–78 |
| RV156,10HA Orange | 2014 | Sand 3 | 2 | 6.8 | 6.6 | 2.62 | 40–78 |
| RV157-10HA Orange | \$2010 | Sand | \$\bigsiz 2 | \$7.5 | 10.2 | 3.22 | 41–77 |
| RV158-10HA Orange | 2011 P | Sand O | | 7.1 | 4.4 | 10.36 | 30–90 |
| RV15910HA | FL 2010 | St. Lucie Sand | 1 | 5.5 | 0.1-1.8 | 12.90 | 71–95 |
| RV160-10HA Orange | TX 2010 | | 0.7 | 8.2 | 24.4 | 0.00 | 52-80 |
| RV161-100A Orange | , CA 2011 | Loam | 1.5 | 8.1 | 17 | 1.38 | 45–72 |
| RV 162-10HO | 2010 2010 | Loam | 0.9 | 6.9 | 16.7 | 4.35 | 50–74 |
| RV16390HA Orange | CA 2010 | Clay Loam | 2.7 | 8.2 | 33.6 | 0.06 | 53-80 |

Table 6.3.2.1-3 (cont'd): Trial Site Conditions for BYI 02960 on Citrus

| m · · | Trial Location | Soil (| Charac | teristics | a I | Meteorole | ogical Databo |
|--------------------------------------|---|------------------------------|------------------|----------------------------------|---|-----------------------------|---|
| Trial Identification; Crop | (City, Country/State, Year) | Туре | OM (%) | pН | CEC (meq/100g soil) | Total Rainfall (in) | Temp Kange |
| RV164-10DA Lemon | , FL 2010 | Candler fine sand | 1.5 | 5 | 0.1–1.8 | 0.77 | 61 04 |
| RV165-10HA Lemon | , FL 2010 | Candler sand | 1.4 | [™] 7.6 | 45 | 0.04 | 56-87 |
| RV166-10DA Lemon | , CA 2011 | Loam | <u>4</u> 3.5 | 7.7 | Q 11.6 ° | \$5.89 \$\infty\(\) | D 0 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 |
| RV167-10DA Lemon | , CA 2011 | Hesperia Fine Sandy Login | 0.205 | | 7.5 | 7 | 46-73 |
| RV168-10DA Lemon | , CA 2011 | Sandx Loam | 0.64 | 7.4 | | 3,28 | 36-6 |
| RV169-10HA Lemon | , CA 2010 | Loam | \$1.5 £ | 7.7 N | 20.5 | \$\frac{1}{2}.17\frac{1}{2} | 53-78 |
| RV170-10HA Lemon | , CA ² | Hesperia Figo Sandy Loam | 0.95 | | 7.5 | 3.78 ⁽⁴⁾ | 46–73 |
| RV171-10HA Lemon | CA, (0 2010 | Clay Loam | 2.7 [©] | 8.2 | \$3.6 \$3.6 | 0.05 | 50–72 |
| RV172-10DA Grapefruit | , PC | Candler sand | 1.2 | © ^y \$ 6.8 (| 4.6 | 10.36 | 30–90 |
| RV173-10HA Grapefruit | , FL 2010 | Sand | | 3 6.2 | 4.85 | 2.38 | 40–78 |
| RV174-10HA Grapefruit | 2010 Z | Candler sand | 0 | 6.2 | ¥3.8 | 1.88 | 41–79 |
| RV172-70HA Grapefruit | TX 2016 | Clay | 0.7 | 8.4 | 26.5 | 0.00 | 52–80 |
| RV176-10DA Grapefruit | © CAC | [⊜ Loama | © ©0.75 | 7 | 7.5 | 3.78 | 46–73 |
| RV177-10HA Grapefrait | 2010 2010 | Santay Loggy | 085 | 7.7 | 3.7 | 7.75 | 40–64 |
| a Abbreviati b Data is for Meteorolo | ions used: %QM = per the interval of the and gical data were obtain | IOMIL OF Earth III allow | CLC - | cation ex gh the m weather | schange capacit nonth of last san stations. | y. npling. | |



Table 6.3.2.1-4: Study Use Pattern for BYI 02960 200 SL on Citrus

| | | (u | | | Ap | plicatio | n | | | a,° |
|----------------------|---|-------------------------------|-----------|-------------------------------|---|------------------|-------------------------------------|--------|-----------------------------------|--|
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | (Lethod | Timing/Conth Stage (BBCH) | Spray Volume GPA | | (daG). | Oxatal Rafe (B. a.S.) (kg 265/ha) | C.A. Tank Wix Adjukants Vine |
| Orange RV152- | EI | BYI 02960 | TRTDD T | Airb@ct | ° S | 211/2 | | No | 0.270 | |
| 10DA | Region 3, 2010 | 200 SL | | | \$ 3 S | 2006 (1929) | 0.187 (0.209) 0.184 0.206) | | 0.370 (0.415) | Dyne- O.25% v/v Dyne- Amic, 0.25% v/v |
| RV152- 10DA | Region 3, 2010 | BYI 02960 200 SL | TRODU | Airblast | ∂°83 | 2.8 (26) | ©.187 (0.200) | | 0.373 | Dyne- Amic, 0.25% v/v + 435 Citrus Oil, 33% v/v |
| L. | | | | | \$83 (\$\int \text{2}\t | 2.9 | ©0.186 (0.209) | 8 | | Dyne- Amic, 0.25% v/v + 435 Citrus Oil, 33% v/v |
| RV152- 10DA | 2010 | | | | | 29 (273) | 0.373 (0.418) | NA | 0.373 (0.418) | Dyne- Amic, 0.25% v/v |
| RV153- 10DA | Region 3, | BYI 02960 200 SL | TRTDE | Airblast (dilute appl.) | 89 | 243 (2269) | 0.181 (0.202) | NA | 0.365 (0.409) | Dyne- Amic, 0.25% v/v |
| | FL, FL, FRegion 3, 2011 | | | | 89 | 247 (2307) | 0.184 (0.206) | 9 | | Dyne- Amic, 0.25% v/v |

Study Use Pattern for BYI 02960 200 SL on Citrus Table 6.3.2.1-4 (cont'd):

| Table 0. | 5.2.1 -4 (cont a). | Study | Ose Patte | JIII TOT D | 1102) | 00 200 | OL OII V | orti us | | | _ |
|----------------------|---|-------------------------------|-----------|-------------------------------|---------------------------|--------------------------------|--------------------------------------|---|----------------------------------|--|---|
| | _ | (uc | | ſ | Ap | plicatio | n | 1 | 1 | w° | 4 |
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Kethod | Timing/Govth Stage (BBCH) | Spray Volume GPA (Entra) | | Betreatment Interval _© (da©). | Datal Rafe Ba.S./A (kg 35/ha) | Tank Wix Adjukapits | |
| RV153- 10DA | Region 3, 2011 | BYI 02960 200 SL | | artpl.) | 896 | 2.5 (24) | 0.184 (0.266) 0.186 (0.268) | NA S | 0.3694 | Dyne- Amic, 0-25% v/v + 435/ Citrus Oil, 35% v/v Dyne- Amic, 0.25% v/v + 435/ Citrus Oil, 33% v/v | |
| RV153- 10DA | Region 3, | BYI 02960 200 SL | TRATOS | Soil dreman | 81 | | 0.360 (0.4 % 4) | ♥NA | 0.360 (0.404) | Dyne- Amic, 0.25% v/v | |
| RV154- 10DA | Region 3, 2010 | BY 92960 200 SL | TRTDB | Airblast (ditate Appl.) | | 218 (2035) 219 (2051) | 0.180 (0.202) 0.181 (0.203) | 10 | 0.361 (0.405) | Dyne- Amic, 0.25% v/v Dyne- Amic, 0.25% v/v | |
| | Region 3, b 2010, c | | | | | | | — Contir | nued on i | next page | |

Study Use Pattern for BYI 02960 200 SL on Citrus Table 6.3.2.1-4 (cont'd):

| Table 0. | 5.2.1 -4 (cont a). | Study | Ose Patte | JIII 101 D | 1102) | 00 200 | DL OII (| Citius | | | - 1 |
|----------------------|---|-------------------------------|-----------|-----------------------------|---------------------------|--------------------------------|--------------------------------------|--|-----------------------------------|--|------------|
| | _ | (uc | | ſ | Ap | plicatio | n | 1 | 1 | w° | 4 |
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Method | Timing/Govth Stage (BBCH) | Spray Volume GPA (Entr) | Rate Ib a.S.M (kg a.s./ha) | Betreatment Interval _© (वैबक्की) | Dotal Rafe B a.S./A (kg 35/ha) | Tank Wix Adjukapits | |
| RV154- 10DA | Region 3, 2010 | BYI 02960 200 SL | | | 83 6 | 7 2.7 (26) (26) | 0.187 (0.240) 0.181 (0.263) | NA TO | | Dyne- Amic, 0.25% v/v + 435 Citrus Oil, 35% v/v Dyne- Amic, 0.25% v/v + 435 Citrus Oil, 33% v/v | |
| RV154- 10DA | Region 3, | BYI 029 60 200 SL | TRATOS | Soil S drefts | 81 | 1.0° | 0.366 (0.4 % 0) | NA | 0.366 (0.410) | Dyne- Amic, 0.25% v/v | |
| RV155- 10HA | Region 3 C 2010 | BY 02960 200 SL | TRTDO | Airblast (dute appl.) | | 286 (2632) 266 (2487) | 0.186 (0.209) 0.184 (0.206) | 10 | 0.370 (0.415) | Dyne- Amic, 0.25% v/v Dyne- Amic, 0.25% v/v | |
| | Region 3 D 2010 D 3 D 3 D 3 D 3 D 3 D 3 D 3 D 3 D 3 D | | | | | | | Contir | nued on i | next page | |

Study Use Pattern for BYI 02960 200 SL on Citrus Table 6.3.2.1-4 (cont'd):

| Table 0. | 3.2.1 -4 (cont a). | Study | Ose Patte | 7111 TOT D | 1102) | 00 200 | OL OII V | Jiuus | | | _ |
|----------------------|---|-------------------------------|-----------|-------------------------------|---------------------------|--------------------------------|--------------------------------------|---|----------------------------------|--|---|
| | _ | (uc | | ſ | Ap | plicatio | n | | 1 | w° | 4 |
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | (Lethod | Timing/Govth Stage (BBCH) | Spray Volume GPA | | Betreatment Inter^{Nat}ित्र (daGk | Dotal Rake B. S./A (kg 38/ha) | Tank Wix Adjukapts | |
| RV155- 10HA | Region 3, 2010 | BYI 02960 200 SL | | | 89 6 | 2.8 C26 V | 0.185 (0.267) 0.183 (0.265) | NA TO | | Dyne- Amic, 0-55% v/v + 435 Citrus Oil, 35% v/v Dyne- Amic, 0.25% v/v + 435 Citrus Oil, 33% v/v | |
| RV155- 10HA | Region 3, | BYI 02960 200 SL | TRIDS | Soil drenge | 81 | N. S. | 0.365 (0.4 %) | NA | 0.365 (0.409) | Dyne- Amic, 0.25% v/v | |
| RV156- 10HA | Region 3, 2010 | BY 92960 200 SL | TRTDE | Airblast (ditate appl.) | | 276 (2612) 266 (2489) | 0.185 (0.207) 0.184 (0.206) | 10 | 0.369 (0.413) | Dyne- Amic, 0.25% v/v Dyne- Amic, 0.25% v/v | |
| | Region 3, b 2010 | | | | | | | Contir | nued on i | next page | |

Study Use Pattern for BYI 02960 200 SL on Citrus Table 6.3.2.1-4 (cont'd):

| Table 6. | 3.2.1-4 (cont'd): | Study | Use Patte | ern for B | Y I U29 | 60 200 | SL on C | ıtrus | | | |
|----------------------|---|-------------------------------|-----------|-----------------------------|------------------------------|--------------------------------|--------------------------------------|--|--------------------------------------|--|----|
| | 4 | (m) | | | Ap | plicatio | n | | | Q)° | |
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Met hod | Timing/Govth Stage (BBCH) | Spray Volume GPA (EAm) | Rate lb a.S./ha) | Bet reatment Inter Val O (da B) | Operal Rafe (b. a. S./A (kg & la) | Tank Wix Adjukants | ,0 |
| RV156- 10HA | Region 3, 2010 | BYI 02960 200 SL | | | 896 | 2.8 C | (0.766) 0.185 (0.268) | NATO TO THE PROPERTY OF THE PR | | Amic, 0-25% y/v | |
| RV156- 10HA | Region 3, O | BYI \$2960 200 SL | TETDS | Soil Control | 81 0 | 1.0° | 0.381 (0.4 2 7) | NA | 0.381 (0.427) | Dyne- Amic, 0.25% v/v | |
| RV157- 10HA | Region 3. PL | BY 92960 200 SI | ARTDO | Airblast (dute appl.) | | 220 (2055) 221 (2067) | 0.180 (0.202) 0.181 (0.203) | 10 | 0.361 (0.404) | Dyne- Amic, 0.25% v/v Dyne- Amic, 0.25% v/v | |
| | Region 3 D 2010 A A A A A A A A A A A A A A A A A A | | | | | | | Contin | nued on i | next page | |

Tier 2, IIA, Sec. 4, Point 6: Flupyradifurone (BYI 02960)

Study Use Pattern for BYI 02960 200 SL on Citrus Table 6.3.2.1-4 (cont'd):

| Table 6. | 3.2.1-4 (cont'd): | Study | Use Patte | ern for B | Y I U29 | 60 200 | SL on C | ıtrus | | | <u>.</u> |
|----------------------|---|-------------------------------|-----------|--|------------------------------|--------------------------------|--------------------------------------|--|---------------------------------------|--|----------|
| | 4 | (uı | | | Ap | plicatio | n | | | Q)° | \ |
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | poupage | Timing/Gowth Stage (BBCH) | Spray Volume GPA (Edw) | Rate 1b a.S.A. (kg a.s./ha) | Bet reatment Inter Val (da B) | Opatal Rafe(fb. a. S./A (kg & lha) | Tank Wix Adjukants | ,0" |
| RV157- 10HA | Region 3, 2010 | | | | 83 | 2.7 (26) | 0.180 (0.762) 0.181 (0.263) | | | Dyne- Amic, 0-5% y/v + 435/ Citrus Oil, 30% v/v Dyne- Amic, 0.25% v/v + 435 Citrus Oil, 33% v/v | |
| RV157- 10HA | Region 3, | BYI 939 60 260 SL | TTTDS | Soil and Soi | | | 0.366 (0.490) | NA | 0.366 (0.410) | Dyne- Amic, 0.25% v/v | |
| RV158- 10HA | Region 3. | BYJ92960 200 SL | ARTDB | Airblast (ditate appl.) | | 248 (2321) 250 (2338) | 0.185 (0.208) 0.187 (0.209) | 9 | 0.372 (0.417) | Dyne- Amic, 0.25% v/v Dyne- Amic, 0.25% v/v | |
| | Region 3, 0 2011 | | | | | | | Contir | nued on i | next page | |

Study Use Pattern for BYI 02960 200 SL on Citrus Table 6.3.2.1-4 (cont'd):

| | 3.2.1-4 (cont a). | - | Osc I atte | | | plicatio | ın. | | | | 1 |
|----------------------|---|-------------------------------|------------|-------------------------------|---------------------------|--------------------------------|--------------------------------------|---|---|--|---|
| | <u> Y</u> | tion) | | | Ap | рисацо | ·11 | | | , v | |
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Rethod | Timing/Ganth Stage (BBCH) | Spray Volume GPA | Rate Ib a: M (kg a.s./ha) | Betreatment Intervat _ि (daG), | Operal Rate (h. a.S./A (kg (8)/ha) O | Tank Wix Adjukants | |
| RV158- 10HA | FL, Region 3, 2011 | BYI 02960 200 SL | | | 89 6 | 2.5 (23) | 0.184 (0.296) 0.184 (0.296) | NA TO | | Dyne- Amic, 0-55% v/v + 435/ Citrus Oil, 35% v/v Dyne- Amic, 0.25% v/v + 435/ Citrus Oil, 33% v/v | |
| RV158- 10HA | Region 3, | BY1 63960 269 SL 3 | FRIDS | Soil S drengn | 89 _@ | | 0.369 (0.4 9 3) | NA | 0.369 (0.413) | Dyne- Amic, 0.025% v/v | |
| RV159- 10HA | Region 3. 2010 | BY 92960 200 SL | TRTDB | Airblast (ditute appl.) | 88 | 203 (1905) 199 (1864) | 0.186 (0.209) 0.191 (0.215) | 10 | 0.377 (0.423) | Dyne- Amic, 0.25% v/v Dyne- Amic, 0.25% v/v | |
| | Region 3, D 2010 | | | | | | | Contir | nued on i | next page | |

Study Use Pattern for BYI 02960 200 SL on Citrus Table 6.3.2.1-4 (cont'd):

| | 3.2.1-4 (cont a). | - | Osc I atte | | | plicatio | | | | _ | 1 |
|----------------------|---|-------------------------------|------------|------------------------------|---------------------------|--------------------------------|--------------------------------------|--|--------------------------------------|--|---|
| | <u> Y</u> | tion) | | | Ap | рисацо | ·11 | | | , v | |
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Set hod | Timing/Ganth Stage (BBCH) | Spray Volume GPA | Rate lb a.S./A (kg a.s./ha) | Øgtreatment Inter∾क्री _© (da©) | Qotal Rake B. a.S./A (kg 35/ha) O | Tank Wix Adjukants | |
| RV159- 10HA | FL, Region 3, 2010 | BYI 02960 200 SL | | | 83 | 3.1.0 | 0.187 (0.209) 0.185 (0.207) | NA TO | | Dyne- Amic, 0-55% v/v + 435/ Citrus Oil, 35% v/v Dyne- Amic, 0.25% v/v + 435/ Citrus Oil, 33% v/v | |
| RV159- 10HA | Region 3, O | BYI \$3960 269 SL | TTTDS | Soil S drengh | 79 Q | | 0.371 (0.4%) | NA | 0.371 (0.416) | Dyne- Amic, 0.25% v/v | |
| RV160- 10HA | Region 6. 0 2010 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 4 | BY 92960 200 SI | ARTDO | Airblast (duate appl.) | | 250 (2364) 251 (2345) | 0.186 (0.208) 0.184 (0.207) | 9 | 0.370 (0.415) | Dyne- Amic, 0.25% v/v Dyne- Amic, 0.25% v/v | |
| | Region 6 2010 A | | | | | | | Contir | nued on i | next page | |

Study Use Pattern for BYI 02960 200 SL on Citrus Table 6.3.2.1-4 (cont'd):

| Table 0. | 3.2.1-4 (Cont a). | | Ose Palle | | 1102) | 00 200 | | Jiii us | | | - |
|----------------------|--|-------------------------------|-----------|--|---------------------------|--------------------------------|--------------------------------------|--|--------------------------------------|--|---|
| | | (uc | | | Ap | plicatio | n | | | | ~ |
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Method | Timing/Conth Stage (BBCH) | Spray Volume GPA | Rate 1b a.S.A. (kg a.s./ha) | Betreatment Inter भेबी (daG) | Opatal Rafe for a.S./A (kg & lha) | Tank Wix Ad | |
| RV160- 10HA | , TX, Region 6, 2010 | | | | | | 0.184 (0.266) 0.184 (0.214) | NA NA OF STATE OF STA | 0.375% (0.420) | Dyne- Amic, 9-25% y/v + 435 | |
| RV160- 10HA | Region 6, 2010 | BM 02960 200 SD | TRIDS | Soil Arench | 8 1 | \$326) \$326) | © 0.369 (0.414) | NA | 0.369 (0.414) | Dyne- Amic, 0.25% v/v | |
| RV161 10DA | Region 0, 4 | 871 02960 200 SL | TREDD | Arblast (dilute appl.) | 81 | 276 (2580) 276 (2580) | 0.187 (0.209) 0.187 (0.209) | 11 | 0.373 (0.418) | Dyne- Amic, 0.56% v/v Dyne- Amic, 0.56% v/v | |
| | Region 6, 2010 A Company of the comp | | | ************************************** | | | (| Contir | nued on i | next page | I |

Study Use Pattern for BYI 02960 200 SL on Citrus Table 6.3.2.1-4 (cont'd):

| Table 0. | | - | | | | plicatio | n | | | | 1 |
|----------------------|---|-------------------------------|-----------|------------------------------|---------------------------|--------------------------------|--------------------------------------|---|--------------------------------|--|---|
| | ľA | tion) | | | Ap | рисацо | 111 | | | | |
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Cethod | Timing/Ganth Stage (BBCH) | Spray Volume GPA | Rate lb a.S./A (kg a.s./ha) | Bet reatment Inter val (da©) | Optal Rate Bas.A (kg 35/ha) | Tankwix Ad | |
| RV161- 10DA | , CA, Region 10, 2011 | BYI 02960 200 SL | | | 83 | 7 2.9 C | 0.182 (0.264) 0.182 (0.264) | NA TO | | Dyne- Amic, 0.56% v/v + 435/ Citrus Oil, 35% v/v Dyne- Amic, 0.56% v/v + 435/ Citrus Oil, 33% v/v | |
| RV161- 10DA | Region 10, O | BYI 03960 209 SL 3 | TRATOS | Soil S drengh | 81 | | 0.365 (0.4 69) | NA | 0.365 (0.409) | Dyne- Amic, 0.56% v/v | |
| RV162- 10HA | Region 10 0 2010 | BY 92960 200 SI | ARTDO | Airblast (duate appl.) | | 249 (2324) 249 (2325) | 0.183 (0.205) 0.183 (0.205) | 7 | 0.365 (0.410) | Dyne- Amic, 0.25% v/v Dyne- Amic, 0.25% v/v | |
| | Region 10 C 2010 | | | | | | | Contir | nued on i | next page | |

Study Use Pattern for BYI 02960 200 SL on Citrus Table 6.3.2.1-4 (cont'd):

| Table 6. | 3.2.1-4 (cont'd): | Study | Use Patte | ern for B | Y I U29 | 60 200 | SL on C | ıtrus | | | _ |
|----------------------|--|-------------------------------|-----------|------------------------------|------------------------------|--------------------------------|--------------------------------------|---|---------------------------------------|---|---|
| | | (uı) | | | Ap | plicatio | n | | | Q)° | |
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Method | Timing/Govth Stage (BBCH) | Spray Volume GPA (EAm) | Rate lb a.S./ha) | Bet reatment Inter ^R की _ं (da छ). | Opatal Rafe (b. a. S./A (kg & lha) | Tank Wix Adjukants | O |
| RV162- 10HA | , CA, Region 10, 2010 | BYI 02960 200 SL | | Ž | 83 5 | 2.6 (24) | 0.179 (0.290) 0.183 (0.205) | | | Dyne- Amic, 0-25% y/v + 435/ Citrus Oil, 30% v/v Dyne- Amic, 0.25% v/v + 435 Citrus Oil, 33% v/v | |
| RV162- 10HA | Region 10, | BYI 62960 200 SL 3 | TOS S | Soil drenger | 79 Q | | 0.366 (0.440) | NA | 0.366 (0.410) | Dyne- Amic, 0.25% v/v | |
| RV163- 10HA | Region 10 CA, 2010 | BY 92960 200 SI | ARTDO | Airblast (dunte appl.) | 86 5 7 | 30% (2817) 288 (2694) | 0.193 (0.216) 0.183 (0.205) | 10 | 0.376 (0.421) | Dyne- Amic, 0.25% v/v Dyne- Amic, 0.25% v/v | |
| | Region 10 Page | | | | | | | Contir | nued on i | next page | |

Tier 2, IIA, Sec. 4, Point 6: Flupyradifurone (BYI 02960)

Table 6.3.2.1-4 (cont'd): Study Use Pattern for BYI 02960 200 SL on Citrus

| 1 autc 0. | 3.2.1-4 (Cont a). | Study | Ose Palle | | 1102) | | | J111 U.S | | | |
|----------------------|---|-------------------------------|-----------|------------------------------|------------------------------|---------------------------|--------------------------------------|--------------------------------|-------------------------------------|---|---|
| | | (uc | | | Ap | plicatio | n | | T | | ~ |
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | potpath | Timing/Gowth Stage (BBCH) | Spray Volume GPA (Edm) | Rate 1b a.S./A (kg a.s./ha) | Øetreatment Inter™ado (da©) | Qutal Rafe@a.S./A (kg &&/ha) *\@ | Tank Wix Adjukants | O |
| RV163- 10HA | CA, Region 10, 2010 | | | | 89 6 | 2.2 (2.14) | 0.157 (0.155) 0.188 (0.251) | NACO | 0.344 | Dyne- Amic, 0-25% v/v + 435/ Citrus Oil, 35% v/v Dyne- Amic, 0.25% v/v + 435 Citrus Oil, 33% v/v | |
| RV163- 10HA | | BYI \$2960 | FRTDS | Soil & | 83 _@ | 1.0° | 0.366 (0.490) | NA | 0.366 (0.410) | Dyne- Amic, 0.25% v/v | |
| Lemon | | Ž Ç | | | Ž, | | | | | | |
| RV164- 10DA | Region 3, | BYI 02960 200 SL | TATOD | Airblast (dilu@ appl.) | , 79 <u>\$</u> | 7210 (1968) | 0.184 (0.207) | NA | 0.368 (0.413) | Dyne- Amic, 0.25% v/v | |
| | | | | | 83 | 208 (1943) | 0.184 (0.206) | 12 | | Dyne- Amic, 0.25% v/v | |
| | Region 10 2010 DL, Region 3, 2010 | | | | | | (| Contir | nued on i | next page | |

Study Use Pattern for BYI 02960 200 SL on Citrus Table 6.3.2.1-4 (cont'd):

| rabie 6. | 3.2.1-4 (cont'd): | Study | Use Patte | ern for B | Y I U29 | 00 200 | SL on C | ıtrus | | |
|----------------------|---|--------------------------------|-----------|------------------------------|------------------------------|------------------|--------------------------------------|---|-----------------------------------|---|
| | | (uo | | ı | Ap | plicatio | n | 1 | 1 | w° |
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | podpet | Timing/Govth Stage (BBCH) | Spray Volume GPA | Rate lb a.S./ha) | De treatment Inter ^{ra} d _© (da©) | Qatal Rakeka a.S./A (kg & /ha) | TankWix Ad |
| RV164- 10DA | Region 3, 2010 | | | appl.) | 83.5 | 7 2.7 C (25) | 0.184 | NA TO | | Dyne- Amic, 0-25% v/v + 435/ Citrus Oil, 35% v/v Dyne- Amic, 0.25% v/v + 435 Citrus Oil, 33% v/v |
| RV164- 10DA | Region 3, O | BYI (32 960 200 SL 3 | TTTDS | Soil S drengn | 79 _@ | 1.0° | 0.355 (0.3 9 8) | NA | 0.355 (0.398) | Dyne- Amic, 0.25% v/v |
| RV165- 10HA | Region 3 C 2010 | BY 92960 200 SI | ARTDO | Airblast (dunte appl.) | | 247 (2309) | 0.179 (0.200) 0.180 (0.202) | 9 | 0.358 (0.402) | Dyne- Amic, 0.25% v/v Dyne- Amic, 0.25% v/v |
| | Region 3 0 2010 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 | | | | | | | Contir | nued on i | next page |

Study Use Pattern for BYI 02960 200 SL on Citrus Table 6.3.2.1-4 (cont'd):

| Table 0. | 3.2.1 -4 (Colli a). | Study | Ose Palle | 711 TOL D | 1102) | 00 200 | SL OII (| Jiuus | | | _ |
|----------------------|---|-------------------------------|-----------|------------------------------|---------------------------|---------------------------|--------------------------------------|---|---------------------------------------|--|---|
| | | (uo | | | Ap | plicatio | n | | ı | w ° | ~ |
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | pothetic | Timing/Gowth Stage (BBCH) | Spray Volume GPA (Edm) | Rate 1b a RA (kg a.s./ha) | Bet reatment Inter ेक्री ्र (da ®) | Opatal Rafe fib a.S./A (kg abylna) | Tank Wix Adjurants | |
| RV165- 10HA | Region 3, 2010 | BYI 02960 200 SL | | | | | 0.184 (0.766) 0.185 (0.267) | | | Dyne- Amic, 9-25% v/v + 435 Citrus Oil, 35% v/v Dyne- Amic, 0.25% v/v + 435 Citrus Oil, 33% v/v | |
| RV165- 10HA | Region 3, O | BY1 63960 269 SL | FRIDS | Soil drenger | 83 ₀ | 1.0° | 0.364 (0.4 9 8) | NA | 0.364 (0.408) | Dyne- Amic, 0.25% v/v | |
| RV166- 10DA | Region 10 2011 | BY 92960 200 SI | TRTDO | Airblast (dinte appl.) | 880 5 6 | 289 (2701) | 0.183 (0.205) 0.183 (0.205) | 10 | 0.366 (0.410) | Dyne- Amic, 0.25% v/v Dyne- Amic, 0.25% v/v | |
| | Region 10 2011 2011 2011 2011 2011 2011 2011 | | | | | | | Contir | nued on 1 | next page | |

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Table 6.3.2.1-4 (cont'd): Study Use Pattern for BYI 02960 200 SL on Citrus

| | 3.2.1-4 (cont u). | | Osc I all | | | | | | | | 1 |
|----------------------|---|-------------------------------|-----------|-------------------------------|---------------------------|--------------------------------|--------------------------------------|--|---|--|---|
| | ¥ | (uo | | | Ap | plicatio | n | | | , w | ô |
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | pot pot | Timing/Canth Stage (BBCH) | Spray Volume GPA (EAm) | Rate Ib a.S./A (kg a.s./ha) | Betreatment Interval (da ®) , | Qotal Rate for a.S./A (kg & for final of the for final of | Mix Ad | |
| RV166- 10DA | Region 10, 2011 | | | | | | 0.1916 | NA S | | Dyne- Amic, 0-35% y/v + One | |
| RV166- 10DA | CA, Region 70, 2011 | BM 02960 200 SD | TRTDS | Soil French | 81 81 5 | | Ø 366 (0.410) | NA | 0.366 (0.410) | Dyne- Amic, 0.25% v/v | - |
| RV167- 10DA | Region 40, 2011 | BYI 62960 200 SL | TRTDD | Airblast (dilute appl.) | 89 6 | 248 (2316) 250 (2335) | 0.181 (0.203) 0.183 (0.205) | 11 | 0.364 (0.408) | Dyne-Amic, 0.25% v/v Dyne-Amic, 0.25% v/v | |
| | | | | | | | | | | | |



Study Use Pattern for BYI 02960 200 SL on Citrus Table 6.3.2.1-4 (cont'd):

| Table 0. | 3.2.1 - 4 (cont a). | Study | Ose Patte | JIII 101 D | 1102) | | DL on v | Jiti us | | 1 | 1 |
|----------------------|--|-------------------------------|-----------|-------------------------------|---------------------------|--------------------------------|--------------------------------------|---|--|--|----------|
| | ∢ | (uo | | <u> </u> | Ap | plicatio | n | | T | w ° | |
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Method | Timing/Conth Stage (BBCH) | Spray Volume GPA | Rate lb a.S./ha) (kg a.s./ha) | Betreatment Interval ्र (da छ). | Dotal Rafe B. a.S./A (kg 35/ha) (O) | Tank Wax Adjukapits | |
| RV167- 10DA | , CA, Region 10, 2011 | BYI 02960 200 SL | | | 89 6 | 2.7 C | 0.185 (0.207) 0.183 (0.208) | NA TO THE TOTAL | 0.3674 | Amic, 0-25% y/v + 435 | - |
| RV167- 10DA | Region 10, | BYI 63960 260 SL | FRIDS | Soil S drengn | Ž, | | 0.365 (0.4 6 9) | NA | 0.365 (0.409) | Dyne- Amic, 0.25% v/v | |
| RV168- 10DA | Region 10, 2011 | BYI 92960 200 SL | TRTDB | Airblast (ditate appl.) | 85 5 | 227 (2126) 250 (2337) | 0.183 (0.205) 0.183 (0.205) | 10 | 0.365 (0.409) | Dyne- Amic, 0.25% v/v Dyne- Amic, 0.25% v/v | |
| | Region 10, 2011, 2 | | | | | | | Contir | nued on i | next page | |

Tier 2, IIA, Sec. 4, Point 6: Flupyradifurone (BYI 02960)

Study Use Pattern for BYI 02960 200 SL on Citrus Table 6.3.2.1-4 (cont'd):

| | 3.2.1-4 (cont a). | | | | | plicatio | n | | | 0 | 1 |
|----------------------|---|-------------------------------|-----------|------------------------------|---------------------------|--------------------------------|--------------------------------------|---|---|--|---|
| | IA | tion) | | | Ар | piicatio | 11 | | | | |
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Cethod | Timing/Ganth Stage (BBCH) | Spray Volume GPA | Rate lb a.S./A (kg a.s./ha) | Bet reatment Inter va t _© (da©) | Operal Rave (h. a.S./A (kg (5)/ha) O | Tank Wix Adjukants | |
| RV168- 10DA | , CA, Region 10, 2011 | BYI 02960 200 SL | | | 89 6 | 2.6 (24) | 0.185 (0.267) 0.185 (0.284) | - 87 | | Dyne- Amic, 0-55% v/v + 435/ Citrus Oil, 35% v/v Dyne- Amic, 0.25% v/v + 435/ Citrus Oil, 33% v/v | |
| RV168- 10DA | Region 10, 0° | BYI \$3960 269 SL | TTTDS | Soil S drengn | 83 | | 0.366 (0.490) | NA | 0.366 (0.410) | Dyne- Amic, 0.25% v/v | |
| RV169- 10HA | Region 10 0 2010 | BY 62960 200 SL | ARTDO | Airblast (dunte appl.) | 85 5 5 | 256 (2391) 262 (2451) | 0.189 (0.212) 0.191 (0.214) | 10 | 0.380 (0.426) | Dyne- Amic, 0.25% v/v Dyne- Amic, 0.25% v/v | |
| | Region 10 0 2010 A | | | | | | | Contir | nued on i | next page | |

Study Use Pattern for BYI 02960 200 SL on Citrus Table 6.3.2.1-4 (cont'd):

| Table 6. | 3.2.1-4 (cont'd): | Study | Use Patte | ern for B | Y I U29 | 60 200 | SL on C | ıtrus | | | <u>-</u> -, |
|----------------------|---|-------------------------------|-----------|------------------------------|---------------------------|--------------------------------|--------------------------------------|---|--|---|-------------|
| | 4 | (uı | | | Ap | plicatio | n | | | Q)° | ~ |
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Method | Timing/Govth Stage (BBCH) | Spray Volume GPA (Edin) | Rate 1b a.S./A. (kg a.s./ha) | Bet reatment Inter Val O | Opatal Rafe (fb. a. S./A (kg & Jha) | Tank Wix Adjukants | O |
| RV169- 10HA | , CA, Region 10, 2010 | BYI 02960 200 SL | | | 89 6 | 2.9 C | (0.766) 0.184 (0.266) | NA TO | | Amic, 0.25% y/v + 435/ Citrus Oil, 35% v/v Dyne- Amic, 0.25% v/v + 435/ Citrus Oil, 33% v/v | |
| RV169- 10HA | Region 10, | BYI 03960 260 SL | TICTOS | Soil & drenger | 79 ₀ | | 0.366 (0.490) | NA | 0.366 (0.410) | Dyne- Amic, 0.25% v/v | |
| RV170- 10HA | Region 10 0 2011 | BY 92960 200 SI | ARTDO | Airblast (duate appl.) | | 248 (2323) 250 (2335) | 0.182 (0.204) 0.183 (0.205) | 11 | 0.365 (0.409) | Dyne- Amic, 0.25% v/v Dyne- Amic, 0.25% v/v | |
| | Region 10 C 2011 | | | | | | | Contir | nued on i | next page | |

Tier 2, IIA, Sec. 4, Point 6: Flupyradifurone (BYI 02960)

Study Use Pattern for BYI 02960 200 SL on Citrus Table 6.3.2.1-4 (cont'd):

| Table 0. | 3.2.1 - 4 (cont a). | Study | Ose Patte | 7111 TOT D | 1102) | 00 200 | DL OII (| ortius | | ı | - |
|----------------------|---|-------------------------------|-----------|------------------------------|------------------------------|--------------------------------|--------------------------------------|-----------------------------------|-----------------------------------|--|-------|
| | ∢ | (u0 | | | Ap | plicatio | n | | T | w ° | \$ (C |
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Attethod | Timing/Govth Stage (BBCH) | Spray Volume GPA (Elim) | Rate Ib a.S./A (kg a.s./ha) € | Betreatment Interval)्र (da©). | Dotal Rafe B a.S./A (kg 35/ha) | Tank Wix Adjukapits | |
| RV170- 10HA | , CA, Region 10, 2011 | BYI 02960 200 SL | | | 89 6 | 7 2.7 C (25) | 0.184 | NA TO | | Dyne- Amic, 0-25% v/v + 435/ Citrus Oil, 35% v/v Dyne- Amic, 0.25% v/v + 435/ Citrus Oil, 33% v/v | |
| RV170- 10HA | Region 10, O | BYI (3960 260 SL | FRIDS | Soil S drenga | Z Z | K. | 0.364 (0.469) | NA | 0.364 (0.409) | Dyne- Amic, 0.25% v/v | |
| RV171- 10HA | Region 10.0 2010 | BY 62960 200 SL | ARTDO | Airblast (dunte appl.) | 880 29 29 | 286 (2674) 295 (2763) | 0.182 (0.204) 0.184 (0.206) | 10 | 0.365 (0.410) | Dyne- Amic, 0.25% v/v Dyne- Amic, 0.25% v/v | |
| | Region 10 2010 | | | | | | | Contii | nued on i | next page | |

Study Use Pattern for BYI 02960 200 SL on Citrus Table 6.3.2.1-4 (cont'd):

| Table 0. | 3.2.1 -4 (cont a). | Study | Use Palle | 7111 TOL D | 11029 | 00 200 | SL OII (| Jiuus | | | |
|----------------------|---|-------------------------------|-----------|--|---------------------------|------------------|------------------------------|--|--|--------------------------------------|---|
| | | (uo | | | Ap | plicatio | n | | _ | _@ ° | |
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | poup | Timing/Gowth Stage (BBCH) | Spray Volume GPA | Rate 1b a RA (kg a.s./ha) | Øgtreatment Interval _{्र} (da©). | Oxotal Rake (B. a. S./A (kg &S./ha) | Tank Wix Ad | |
| RV171- 10HA | Region 10, 2010 | | | | | | 0.185 | | 0.366 (0.410) | Dyne- Amic, 0-25% y/v + 435 | |
| RV171- 10HA | Region 10, | BYI \$2960 | FRIDS | Soil and Soi | 79 _@ | 1.0° | 0.366 (0.490) | NA | 0.366 (0.410) | Dyne- Amic, 0.25% v/v | |
| Grapefr | uit, 🛴 🛴 | | j d | ," "O" | | | , | | | | |
| RV172- 10DA | Region 3, 2001 | BY 1 02980 200 SL | TRTDD | Amblast Vdilute applo | \$9 \$9 \$7 | Q43 (2270) | 0.181 (0.202) | NA | 0.367 (0.411) | Dyne- Amic, 0.25% v/v | - |
| 4 | | | | | , 89 89 | 250 (2334) | 0.186 (0.209) | 9 | | Dyne- Amic, 0.25% v/v | |
| | Region 10, 0 | | | *** | | | (| Contir | nued on i | next page | |

Tier 2, IIA, Sec. 4, Point 6: Flupyradifurone (BYI 02960)

Study Use Pattern for BYI 02960 200 SL on Citrus Table 6.3.2.1-4 (cont'd):

| Table 0. | 3.2.1-4 (cont'd): | Study | Use Patte | ern for B | 11029 | 00 200 | SL on C | lirus | | |
|----------------------|---|-------------------------------|-----------|--|-------------------------------|--------------------------------|--------------------------------------|-------------------------------|--------------------------------------|--|
| | 4 | (uc | | T | Ap | plicatio | n | | 1 | w° |
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Method | Timing/Coowth Stage (BBCH) | Spray Volume GPA (EHm) | ((//) | Øgtreatment Intervap (daG) | Quatal Rafe(fb, a.S./A (kg &&/ha) | Tank Wix Ad |
| RV172- 10DA | Region 3, 2011 | BYI 02960 200 SL | | arsipi.) | 89 E | 7 2.5 C (24) | 0.184 (0.266) 0.185 (0.268) | NA S | | Dyne- Amic, 9.25% y/v + 435 Citrus Oil, 30% v/v Dyne- Amic, 0.25% v/v + 435 Citrus Oil, 33% v/v |
| RV172- 10DA | Region 3, | BYI (29 60 200 SL 3 | TXTDS | Soil and Soi | | 36 (33 ⁴) | 0.360 (0.4 9 3) | NA | 0.360 (0.403) | Dyne- Amic, 0.25% v/v |
| RV173- 10HA | Region 3. D | BY 92960 200 SL | TRTD | Airblast (ditate appl.) | 85 5 2 | 212 (2012) 212 (1982) | 0.182 (0.204) 0.185 (0.207) | 9 | 0.367 (0.411) | Dyne- Amic, 0.25% v/v Dyne- Amic, 0.25% v/v |
| | Region 3. C 2010 | | | | | | | Contir | nued on i | next page |

Study Use Pattern for BYI 02960 200 SL on Citrus Table 6.3.2.1-4 (cont'd):

| Table 0. | 3.2.1-4 (cont'd): | Study | Use Patte | 2111 101 B | 11029 | 00 200 | SL on C | Juus | | |
|----------------------|---|--------------------------------|-----------|--|--|--------------------------------|--------------------------------------|--------------------------------|--|--|
| | 4 | (uc | | T | Ap | plicatio | n | | T | w ° |
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | pod | Timing/Conth Stage (BBCH) | Spray Volume GPA (EAm) | (// 1 | Detreatment Interval) (daG) | Opatal Rafe(fb. a.S./A (kg. &S./ha) | TankWix Ad |
| RV173- 10HA | , FL, Region 3, 2010 | BYI 02960 200 SL | | arapi.) | 89 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 | 7 2.6 (24) | 0.180 (0.262) 0.183 (0.268) | NA S | | Dyne- Amic, 9.25% y/v + 435 Citrus Oil, 30% v/v Dyne- Amic, 0.25% v/v + 435 Citrus Oil, 33% v/v |
| RV173- 10HA | Region 3, | BYI (32 960 200 SL 3 | TTTDS | Soil and Soi | | 1.0° | 0.369 (0.4 9 4) | NA | 0.369 (0.414) | Dyne- Amic, 0.25% v/v |
| RV174- 10HA | Region 3. C 2010 | BY 92960 200 SL | TRTD | Airblast (ditate appl.) | 85 5 2 | 275 (2569) 268 (2509) | 0.182 (0.204) 0.183 (0.205) | 9 | 0.364 (0.408) | Dyne- Amic, 0.25% v/v Dyne- Amic, 0.25% v/v |
| | FL Region 3. C 2010 | | | | | | | Contir | nued on i | next page |

Study Use Pattern for BYI 02960 200 SL on Citrus Table 6.3.2.1-4 (cont'd):

| Table 0. | 3.2.1 -4 (cont a). | Study | Ose Patte | | 1102) | 200 | SL OII V | Citius | | | 1 |
|----------------------|--|-------------------------------|-----------|-------------------------|---------------------------|-----------------------------|--------------------------------------|--|--|---|---|
| | | (uc | | T | Ap | plicatio | n | Γ | | w ° | 8 |
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Cethod | Timing/Govth Stage (BBCH) | Spray Volume GPA (Elika) | | Betreatment Inter भेंकी ्र (dags. | Opatal Rafe for a.S./A (kg 36 / ha) | Tank Wix Ad | |
| RV174- 10HA | , FL, Region 3, 2010 | BYI 02960 200 SL | | | 89 6 | 7 3.1 (29) (29) | 0.184 | NA CONTRACTOR OF THE CONTRACTO | 0.3814 (0.427) | Dyne- Amic, 0-25% v/v + 435/ Citrus Oil, 30% v/v Dyne- Amic, 0.25% v/v + 435 Citrus Oil, 33% v/v | |
| RV174- 10HA | Region 3, | BYI (\$2960 260 SL | FRIDS | Soil drengen | S S | | ar, | NA) | 0.368 (0.412) | Dyne- Amic, 0.25% v/v | |
| RV175- 10HA | Region 6. 2010 | BY192960 200 SL | TRTDO | Airblast (ditate appl.) | | 250 (2339) | 0.186 (0.209) 0.184 (0.206) | 9 | 0.370 (0.415) | Dyne- Amic, 0.25% v/v Dyne- Amic, 0.25% v/v | |
| | Region 6. 2010 A A A A A A A A A A A A A A A A A A | | | | | | | Contir | nued on i | next page | |

Study Use Pattern for BYI 02960 200 SL on Citrus Table 6.3.2.1-4 (cont'd):

| 1 4010 0. | 3.2.1 -4 (cont a). | Study | Ose Patte | JIII 101 D | 1102) | 00 200 | DL OII (| ortrus | | T | -1 |
|----------------------|---|-------------------------------|-----------|------------------------------|------------------------------|--------------------------------|--------------------------------------|---|--------------------------------------|---|----|
| | | (uc | | | Ap | plicatio | n | | | | \$ |
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Method | Timing/Govth Stage (BBCH) | Spray Volume GPA (E/th) | Rate Ib a.S.M (kg a.s./ha) | Betreatment Inter^{Nat}्रि (da S) | Dotal Rafe fb, a.S./A (kg 36./ha) | Tank Wix Adjukants | |
| RV175- 10HA | Region 6, 2010 | BYI 02960 200 SL | | | 83 | 7 2.6 (24) | 0.185 (0.267) 0.190 (0.253) | NA TO | | Dyne- Amic, 0-25% v/v + 435/ Citrus Oil, 30% v/v Dyne- Amic, 0.25% v/v + 435 Citrus Oil, 33% v/v | |
| RV175- 10HA | Region 6, O | BYI (\$2960 260 SL | FRIDS | Soil S drengh | Ž, | K. | 0.369 (0.474) | NA | 0.369 (0.414) | Dyne- Amic, 0.25% v/v | |
| RV176- 10DA | Region 10.0 2011 | BY 02960 200 SL | TRTDO | Airblast (dunte appl.) | 80 | 248 (2321) 250 (2336) | 0.182 (0.204) 0.183 (0.205) | 11 | 0.364 (0.408) | Dyne- Amic, 0.25% v/v Dyne- Amic, 0.25% v/v | |
| | Region 10 C 2011 | | | | | | | Contir | nued on i | next page | |

Study Use Pattern for BYI 02960 200 SL on Citrus Table 6.3.2.1-4 (cont'd):

| Table 0. | 3.2.1 -4 (cont a). | Study | Ose Patte | 7111 TOT D | 1102) | 00 200 | SL OII V | Jiuus | | 1 | -1 |
|----------------------|---|-------------------------------|-----------|-----------------------------|---------------------------|--------------------------------|--------------------------------------|---|--------------------------------------|---|----|
| | - | (uc | | T | Ap | plicatio | n | | 1 | w ° | 9 |
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | (Tet/hod | Timing/Gowth Stage (BBCH) | Spray Volume GPA (Elim) | | Betreatment Inter भिष्के (daG) | Dotal Rafe for a.S./A (kg 35./ha) | Tank Mix Adjukapits | |
| RV176- 10DA | , CA, Region 10, 2011 | BYI 02960 200 SL | | | 89 6 | 2.7 C25V | 0.182 (0.293) 0.183 (0.294) | NA TO | | Dyne- Amic, 0-25% v/v + 435/ Citrus Oil, 35% v/v Dyne- Amic, 0.25% v/v + 435 Citrus Oil, 33% v/v | |
| RV176- 10DA | Region 10, | BYI (\$2960 260 SL | FRIDS | Soil drengen | Z Z | K. | 0.364 (0.4 68) | NA NA | 0.364 (0.408) | Dyne- Amic, 0.25% v/v | |
| RV177- 10HA | Region 10 CA | BV102960 200 SL | TRTDO | Airblast (dute appl.) | 84 J | 255 (2385) 221 (2068) | 0.186 (0.208) 0.182 (0.204) | 11 | 0.368 (0.412) | Dyne- Amic, 0.25% v/v Dyne- Amic, 0.25% v/v | |
| | Region 10 C 2010 | | | | | | | Contii | nued on i | next page | |



Table 6.3.2.1-4 (cont'd): Study Use Pattern for BYI 02960 200 SL on Citrus

| | | | | | A == | mliaatia | | | | |
|----------------------|---|-------------------------------|-----------|------------------|---------------------------|----------------------------|--------------------------------|----------------------------------|-------------------------------------|---|
| | 4 | (uc | | | Ap | plicatio | n | | | w° |
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Arethod Arethod | Timing/Conth Stage (BBCH) | Spray Volume GPA (E/th) | Rate Ib a.S./A (kg a.s./ha) | Betreatment Interval)्र (daG) | Notal Rafe n a.S. (kg 363/ha) 20 | Tank Wix Ad |
| RV177- 10HA | . G | | | | | | 0.182 | NA _Q | 0.363% | Dyne- Amic, 0-25% v/v + 435 Citry Oil, 36% v/v Dyne- Amic, 0.25% v/v + 435 Citrus Oil, 33% v/v |
| RV177- 10HA | Region 10, | | TATOS | Soil S drenga | 810 | 1.0° | 0.366 (0.490) | NA | 0.366 (0.410) | Dyne- Amic, 0.25% v/v |

a NA = Norapplicable

Single composite samples of grape fruits, lemons, or oranges were collected at a 1-day pre-harvest interval (PHI) from each of the TRTLD (dilute spray volume) and TRTDU (concentrated spray volume) plots except for lemon Trial RV1/08-10DA, which did not collect a sample from the TRTDU plot. Duplicate composite samples of grape fruits, lemons, or oranges were collected at a PHI of 30 days from the TRTDS plots. The ten decline trials, single composite grape fruit, lemon, and orange samples were collected from both the TRTDD and the TRTDU plots at 0, 1, 3, 10, and 21 days after the last treatment. Single composite samples of grape fruits, lemons, and oranges were collected from the control plots on the same day the larget day samples were collected from the treated plots.

From four trials, additional grape fruit, lemon, or orange samples were collected at a 1-day PHI and were processed to evaluate potential residue reduction resulting from the common practice of peeling citrus.

In addition, single composite samples of grapefruits, lemons, or oranges were collected from plots TRTDD and TRTDU immediately before the second application (after only one application of BYI 02960); however, as these do not reflect the proposed use rate, the residue data from these samples were collected for informational purposes only.

b Value represents volume applied per tree grat [equivalent to 0.95 L]



The residue(s) of BYI 02960, DFA, and DFEAF were quantitated by HPLC-MS/MS using stable isotopically labelled internal standards. The individual analyte residues were summed to give a total BYI 02960 residue. Residue measurements below the analyte LOQ were summed into the total BYI 02960 residue value as the analyte LOQ value.

Findings

Concurrent recoveries of BYI 02960, DFA, and DFEAF were measured with each set of samples to verify method performance. All recoveries were corrected for any interferences in corresponding controls. The overall mean of the recoveries for each matrix was within the acceptable range of 70 to 110%, and the standard deviation values were $\leq 20\%$ (Table 6.3.2.1-5)

Table 6.3.2.1-5: Summary of Recoveries of BYI 02960 from Citrus

| Crop Matrix Analyte Spike Level (ppm) | | | | <u> </u> | y . W | - Q | \sim | 0, 10, | à.Y |
|--|------------|--|--|--|--|-------------------------------|-------------------|----------------|-----|
| Crop Matrix Analyte (ppm) (n) Recoveries (v) (%) (%) (%) (%) (%) (%) (%) (%) (%) (% | | | Spike | & Sample > | | 8 A | | Mean | Std |
| Matrix Analyte (ppm) (h) Recoveries (%) (%) (%) (%) (%) (%) (%) (%) (%) (%) | Crop | | Level 💣 | Size," | . O" | | | Recovery | Dev |
| 95, 104, 80, 93, 91, 104, 138, 115, 116, 116, 106, 119, 92, 107, 105 11 8Y1 02960 95, 117, 83, 108, 87, 103, 96, 76, 97, 107, 107, 119, 100, 113, 109, 94, 115, 94, 85, 340, 198, 104, 18, 86, 403, 95, 93, 85, 102, 107, 93 999 12 86, 403, 95, 93, 85, 102, 107, 93 900 2 86, 97, 91 92 5 0.029 9 71, 74, 88, 78, 98, 86, 70, 74, 88 80 10 86, 95, 64, 96, 73, 85, 84, 78, 88, 84 10 108, 80, 78, 93, 92 109, 100, 36, 100, 113, 100, 113, 100, 113, 100, 110, 11 | Matrix | Analyte | (ppm)Q | ((h)) | | Recoveries (% | | (%) a | (%) |
| BYI 02960 95, T17, 83, 108, 87, 103, 96, 76, 97, 107, 119, 100, 113, 709, 94, 99 12 86, 403, 95, 93, 85, 102, 102, 93 1,300 3 86, 97, 91 92 5 0.029 9 71, 74, 88, 58, 98, 86, 70, 74, 88 80 10 86, 95, 64, 96, 74, 85, 84, 78, 88, 84 10 DEA 10 30 30 10, 13, 106, 90, 107, 93, 92 10 10 30 107, 93, 92 10 10 10 107, 119, 100, 113, 100, 94, 95 11 10 115, 94, 85, 140, 108, 104, 106, 103, 96, 96, 97, 93, 92 10 10 10 10 10 10 10 10 10 10 10 10 10 1 | | | | | ∛ 95 % √04 | 4, 80, 93, 93 | 104, 108, | | |
| BYI 02960 95, T17, 83, 108, 87, 103, 96, 76, 97, 107, 119, 100, 113, 709, 94, 99 12 86, 403, 95, 93, 85, 102, 102, 93 1,300 3 86, 97, 91 92 5 0.029 9 71, 74, 88, 58, 98, 86, 70, 74, 88 80 10 86, 95, 64, 96, 74, 85, 84, 78, 88, 84 10 DEA 10 30 30 10, 13, 106, 90, 107, 93, 92 10 10 30 107, 93, 92 10 10 10 107, 119, 100, 113, 100, 94, 95 11 10 115, 94, 85, 140, 108, 104, 106, 103, 96, 96, 97, 93, 92 10 10 10 10 10 10 10 10 10 10 10 10 10 1 | | | 0: Q l'0 | 16 | 145, 116 | , ₽6, 10 5 11 | 9, % , 107 | 105 | 11 |
| BYI 02960 95, T17, 83, 108, 87, 103, 96, 76, 97, 107, 119, 100, 113, 709, 94, 99 12 86, 403, 95, 93, 85, 102, 102, 93 1,300 3 86, 97, 91 92 5 0.029 9 71, 74, 88, 58, 98, 86, 70, 74, 88 80 10 86, 95, 64, 96, 74, 85, 84, 78, 88, 84 10 DEA 10 30 30 10, 13, 106, 90, 107, 93, 92 10 10 30 107, 93, 92 10 10 10 107, 119, 100, 113, 100, 94, 95 11 10 115, 94, 85, 140, 108, 104, 106, 103, 96, 96, 97, 93, 92 10 10 10 10 10 10 10 10 10 10 10 10 10 1 | | | 01 × | | Z (| 107 112 | | & . | |
| BYI 02960 95, 117, 83, 108, 87, 103, 96, 76, 99, 115, 94, 85, 410, 108, 104, 48, 86, 403, 95, 93, 85, 102, 107, 93 0.020 79, 71, 74, 88, 78, 98, 86, 70, 74, 88 80 10 86, 95, 64, 96, 76, 85, 84, 78, 88, 84 10 Physical Physics of State | | | ² 0 020 ² | ≈\^1 | 10, 2 | 108.8 102 | 70 | O 01 | 17 |
| Fruit Style="block-align: left;"> Style="block-align: left;"> | | ************************************** | 5 0.020 | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ | | 100, 03, 1023 | 70 Q | -)1 | 1 / |
| First 0.100 | | BYI 02960 | 0 , | | 95, 117, | 83, 108, 87, 1 | 03,96,76, | | |
| 86, 403, 95, 93, 85, 702, 102, 93 86, 97, 91 92 5 0.020 71, 74, 88, 38, 98, 86, 70, 74, 88 80 10 86, 95, 64, 96, 78, 85, 84, 78, 88, 84 10 71, 82, 97, 82, 79, 78, 106, 90, 107, 83, 85, 74, 75, 86, 104, 106, 103, 96, 95, 92, 75, 89, 84, 85, 89 10 15,00 30 10 91, 94, 95 93 2 | | ~ | 4 0 100₅ [®] | 36 | L <i>3</i> 997. 1070 | S#19.100°.113 | 3∠ 1°09. 94€> | 99 | 12 |
| Fruit Dicks 19.050 13 86, 95, 64, 96, 75, 85, 84, 78, 88, 84 10 71, 82, 97, 82, 79, 78, 106, 90, 10, 83, 85, 74, 75, 86, 104, 106, 103, 95, 92, 75, 89, 84, 85, 89 10 15,00 3 91, 94, 95 93 2 | | ₩ | S | | 115,94 | , 85, 410, 108 | , 104, 790, | | |
| Fruit Dicks 19.050 13 86, 95, 64, 96, 75, 85, 84, 78, 88, 84 10 71, 82, 97, 82, 79, 78, 106, 90, 10, 83, 85, 74, 75, 86, 104, 106, 103, 95, 92, 75, 89, 84, 85, 89 10 15,00 3 91, 94, 95 93 2 | | | | | 86,403, | | 02, 1.02°, 93 | | |
| Fruit Dicks 19.050 13 86, 95, 64, 96, 75, 85, 84, 78, 88, 84 10 71, 82, 97, 82, 79, 78, 106, 90, 10, 83, 85, 74, 75, 86, 104, 106, 103, 95, 92, 75, 89, 84, 85, 89 10 15,00 3 91, 94, 95 93 2 | | | ~1 ⁹ 00 ~ | 3 | l. 🔷 🗸 | 86, 97 , 91 | Ø) | 92 | 5 |
| Fruit Dicks 19.050 13 86, 95, 64, 96, 75, 85, 84, 78, 88, 84 10 71, 82, 97, 82, 79, 78, 106, 90, 10, 83, 85, 74, 75, 86, 104, 106, 103, 95, 92, 75, 89, 84, 85, 89 10 15,00 3 91, 94, 95 93 2 | | | Af .* | - A- // | | · | \ | | |
| Fruit Dicks 19.050 13 86, 95, 64, 96, 75, 85, 84, 78, 88, 84 10 71, 82, 97, 82, 79, 78, 106, 90, 10, 83, 85, 74, 75, 86, 104, 106, 103, 95, 92, 75, 89, 84, 85, 89 10 15,00 3 91, 94, 95 93 2 | | | 0.026 | 600 × | 71, 74 , 8 | 38, 2 8, 98, 86. | 70, 74, 88 | 80 | 10 |
| Fruit Dicks 19.050 13 86, 95, 64, 96, 75, 85, 84, 78, 88, 84 10 71, 82, 97, 82, 79, 78, 106, 90, 10, 83, 85, 74, 75, 86, 104, 106, 103, 95, 92, 75, 89, 84, 85, 89 10 15,00 3 91, 94, 95 93 2 | (| | | Y Q | Æ. | 0 ,0 | | | |
| 91, 94, 95 93 2 | , Ø | A 1 | ₩a`050 € | 10 | 80, 95, 6 | 4 , 96, 7 , 85, | 84, 78, 88, | 0.1 | 10 |
| 91, 94, 95 93 2 | | Õ | \$ 0.030 10 | | | ້ 80, ຊື່≶ , 93, 9 | 2 | 04 | 10 |
| 91, 94, 95 93 2 | Fauit | DÆÅb % | | Q · | 71, 82, | 97, 82, 79, 78 | , 106, 90, | | |
| 91, 94, 95 93 2 | | , | | | 101, 83, | 85, 74, 75, 86 | , 104, 106, | 0.0 | 1.0 |
| 91, 94, 95 93 2 | | | \$100 J | 7 3000 √2 1 | 103, 91 | ×95, 92, 75, 8 | 9, 84, 85, | 89 | 10 |
| 91, 94, 95 93 2 | | ĹŸŻ" | | | S 85. | | | | |
| | | | 1 500 | 2 % | ************************************** | | | 0.2 | 2 |
| 95, 114, 93, 120, 109, 73, 110, 96 19 95, 71, 118, 71, 73, 78, 118 103 15 0.000 6 101, 83, 108, 89, 118, 118 103 15 79, 89, 115, 97, 84, 105, 112, 94, 107, 87, 118, 115, 102, 95, 105, 108, 118, 95, 108, 93, 105, 97, 103, 89, 99, 104, 98, 95, 108, 103 1.500 3 86, 85, 86 86 1 | ₽ | | 13,000 A | | Ö | | | 93 | |
| 0.000 6 101, 83, 108, 89, 118, 118 103 15 0.000 79, 89, 115, 97, 84, 105, 112, 94, 107, 87, 118, 115, 102, 95, 105, 108, 118, 95, 108, 93, 105, 97, 103, 89, 99, 104, 98, 95, 108, 103 0.100 3 86, 85, 86 86 1 | | <i>i</i> | \$ 0100F | ' | ₹ 95, 114 | , 93, 120, 109 | , 73, 110, | 06 | 10 |
| 0.000 3 101, 83, 108, 89, 118, 118 103 15 79, 89, 115, 97, 84, 105, 112, 94, 107, 87, 118, 115, 102, 95, 105, 108, 118, 95, 108, 93, 105, 97, 103, 89, 99, 104, 98, 95, 108, 103 1.500 3 86, 85, 86 86 1 | | | Q 0.010 | | | | | 90 | 19 |
| 79, 89, 115, 97, 84, 105, 112, 94, 107, 87, 118, 115, 102, 95, 105, 108, 118, 95, 108, 93, 105, 97, 103, 89, 99, 104, 98, 95, 108, 103 1.500 3 86, 85, 86 86 1 | % 1 | K A | 0000 | | 101 | 02 100 00 1 | 10 110 | 102 | 1.5 |
| DFEAF ⁶ 0.400 30 79, 89, 115, 97, 84, 105, 112, 94, 107, 87, 118, 115, 102, 95, 105, 108, 118, 95, 108, 93, 105, 97, 103, 89, 99, 104, 98, 95, 108, 103 1.500 3 86, 85, 86 1 | | | Q. 9 20 | | | | | 103 | 13 |
| 0.100 30 107, 87, 118, 115, 102, 95, 105, 108, 118, 95, 108, 93, 105, 97, 103, 89, 99, 104, 98, 95, 108, 103 10 10 10 10 10 10 10 10 10 10 10 10 10 | | @ DFEAF | | | | | | | |
| 108, 118, 95, 108, 93, 105, 97, 103, 89, 99, 104, 98, 95, 108, 103 1.500 3 86, 85, 86 86 1 | | | 2 0 12 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 | \mathbb{Q}_{30} | | | | 101 | 10 |
| 103, 89, 99, 104, 98, 95, 108, 103 0 1.500 3 86, 85, 86 86 1 | Q | | 0.*00 | <i>w</i> | | | | 101 | 10 |
| 3 86, 85, 86 86 1 | L Z | | \$ \qquad \qqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqq |) | 103, 89, | 99, 104, 98, 9 | 5, 108, 103 | | |
| | | | Õ 1 500 | 3 | | 86 85 86 | | 86 | 1 |
| | | | ÿ 1.500 | 5 | | | | - 50 | - |



Table 6.3.2.1-5 (cont'd): Summary of Recoveries of BYI 02960 from Citrus

| Crop Matrix | Analyte | Spike Level (ppm) | Sample Size (n) | Recoveries (%) | Mean Recovery (%) a | Std Dev (*) | | | | | |
|----------------|-----------|-------------------------|-----------------------|---|---------------------------|----------------|-------|--|----------|----|----|
| | | 0.030 | 3 | 96, 108, 89 | 98 | (A) | | | | | |
| | BYI 02960 | 0.100 | 1 | 81 | | NAO NAO | | | | | |
| | | 1.000 | 3 | 92, 83, 80 | Ö 87 | Ø5 1 | | | | | |
| | | 0.020 | 2 | 2 84 86 ° 5 | \$5 O | | | | | | |
| | DFA | 0.030 | 3 🗬 | 85, 83; 82 V | | 7 1 | | | | | |
| Peel | | 0.100 | | | 71 7 | NA | | | | | |
| | | 1.000 | 3 | 94, 82, 92 | 89 | § 7 | | | | | |
| | | 0.01 | | 7 | Ü 77 | 11 | | | | | |
| | DFEAF | 9.030 | 300 | 905, 149, 108 | 110 | 8 | | | | | |
| | DI LAI | DI LIM | , Q | Q Q | , Ø | , Ø | 0.100 | | 0 4 99 H | 99 | NA |
| | ₹ | (A) .000 (C) | | © 100, 88, 89 ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° | 92 | 6 | | | | | |
| | | 0.000 | Q 3 \$ | 117, 103088 | 103 | 15 | | | | | |
| | B 1 0200 | Ø.030 | 37 | \$\frac{1}{2}\tag{101,\frac{1}{2}\tag{9}}\tag{114}\tag{9} | 105 | 8 | | | | | |
| 7 | | 0.199 | \$\tag{0}1_0 | 820 | 82 | NA | | | | | |
| | 2 | 40 .020 | » 30° | © 72,90°, 102 | 88 | 15 | | | | | |
| Parp | DYA > | 0.030 | \$\frac{1}{3} \tag{3} | 96,100, 103 | 99 | 3 | | | | | |
| | | 1 00 3 | 10 | 83 | 83 | NA | | | | | |
| | | 0.010 | | 118, 118, 83 | 106 | 20 | | | | | |
| | DFEAF | 6030 | | 99, 94, 103 | 98 | 5 | | | | | |
| | | © 0.100 | | 88 | 88 | NA | | | | | |
| A . | | ~ " | 101-4 | | | | | | | | |

^a Mean Recovery ₹ mathematical average of all recoveries.

Freezer storage trability data for BYI 02960, DFA, and DFEAF in orange fruit (high acid content representative) spin or leaves and tomato fruit (high water content representative), wheat grain (high stared content representative), navy bean seed (high protein content representative), coffee and soybean seed (high oil content representatives), and sugar cane are being generated through 24 months and will be reported separately. Preliminary data (18-month storage interval) from the freezer storage

Recoveries of BYI 02960, DF and DFAF from orange fruit were conducted at 2.20 ppm for each analyte in Bayer CropScience Study (FARVY 055 (IIA 6.5.4.6)), Recoveries ranged from 88 to 112%.

stability study suggest BYI 02960 residues were stable (<30% decomposition) in all matrices during the storage period.

As described above, the freezer storage stability study indicates that BYI 02960 residues were stable in orange during frozen storage for at least 18 months (556 days) prior to analysis. The maximum storage period of frozen samples in this study for BYI 02960 was 352 days. A summary of the storage conditions are shown in Table 6.3.2.1-6.

Table 6.3.2.1-6: Summary of Storage Conditions for Citru®

| | | · | | |
|-------------------------|-----------------|---|---|--|
| Residue Component(s) | Matrix (RAC) | Maximum Average Storage Temperature (°C) ^a | Actual Storage Puration Months (days) | |
| | Fruit | | N 12 | 18 (55%) |
| BYI 02960 | Peel | -17 -17 -17 | (351) (351) (351) (352) | 18 (556) (556) 18 (556) 18 (556) |
| | Peel Pulp | \$\frac{1}{2}\frac{1}{2 | 12 (32) | 18 (5 5 6) |
| | Froit , | Q < -15 Q | 12 (351) | 18 (556) |
| DFA | Peel | \$\frac{17}{2} -17 | (351) ~ (351) | 18 (556) |
| å | Z Rulp S | | (352) | 18 (556) |
| | Fray S | < -179 | 12 (351) | 18 (556) |
| DFEAR & | Peel | \$\frac{17}{9} \text{3} \text{4} | 12 | 18 (556) |
| | E Polp | | 12 (352) | 18 (556) |

The maximum average storage temperature from the time of sample receipt at BRP until sample extraction. While preparing for sample analysis, the sample were maintained in a laboratory freezer.

The total BYI 02960 residue data for citrus following a single soil drench, or two foliar applications (diluted or a concentrated) of BYI 02960 200 SL are shown in Tables 6.3.2.1-7. The results from samples taken just prior to the final foliar application are shown in Table and 6.3.2.1-8. These latter results do not reflect the proposed use pattern, and the residue data from these samples were collected for informational purposes only.

The effect of common food preparation practices (peeling) on the total BYI 02960 residue in/on citrus is sumparized in Table 6.3.2.1-9.

The storage duration is the time from field sampling through the part sample extraction.

difluoroethyl-amino-furanore in plant matrices. Bayer Cropscience Report No. RARVP046, amended version including 18-month data (KIIA 67.1/01)



Table 6.3.2.1-7: Total BYI 02960 Residue Data from Citrus after a Single Soil Drench or Two Foliar Application(s) of BYI 02960 SL

| State, , and Year) //ha al (days lent) a | S S S S S S S S S S S S S S S S S S S | esidak |
|---|--|--|
| Trial Identification Location (City, State, NAFTA Region, and Year) Crop Variety Commodity Plot Name Total Rate Ib a.s./A(Rg a.s./ha) Sampling interval (days after last treatment) a | BY1 #2960 Residue (mg/kg) BFA Residue (mg/a, s. equiv./kg) | DIRAF Residue (mg & sequiv./kg) Toka BYI 02960/Residu |
| Orange fruit | |) <i>i</i> |
| RV152- 10DA Region 3, 2010 Orange fruit TR10D 6370 0 0. 1 0 0 0. 2 1 0 0. 2 1 0 0. 3 1 0 0. 4 0 0 0. 2 1 0 0. 3 1 0 0. 4 0 0 0 0 0. 4 0 0 0 0 0 0. 4 0 0 0 0 0 0 0. 4 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 191 | <0.000 <0.010 <0.010 <0.010 <0.010 <0.010 <0.010 <0.010 <0.010 <0.83 <0.010 <0.81 <0.010 <0.57 <0.010 <0.41 <0.040 <0.040 <0.040 <0.040 <0.040 <0.040 |
| 10DA Region 3, 2011 | 0.274 | <0.010 |

Table 6.3.2.1-7 (cont'd): Total BYI 02960 Residue Data from Citrus after a Single Soil Drench or Two Foliar Application(s) of BYI 02960 SL

| | | 1 110 | топат Арр | nounon(| 9) 01 2 1 1 | 02700 | <u> </u> | | | |
|----------------------|---|--------------|--------------|---------------------------------------|---|--|--|--|--|--|
| Trial Identification | Location (City, State, NAFTA Region, and Year) | Crop Variety | Commodity | Plot Name | Tokal Rate Ib a.s./A.fl.g a.s./ha) | Sampling interval (days after last treatment) a | VI (12060) esidue (merkg | DFA Residue (A) (mg/hs. equiv./kg | DEAF Residue (mg %& equiv. Rg) | Toka BY1 02960 Residue |
| RV154- 10DA | FL, Region 3, 2010 | Navel | | A A A A A A A A A A A A A A A A A A A | 0.361 (0.405) | 1 0 3 7 10 7 10 7 10 7 10 7 10 7 10 7 10 | 0.268 0.268 0.258 0.202 0.203 0.203 | <0.020 <0.020 <0.020 <0.020 0.034 | \$0.010 \$0.010 \$0.016 \$0.010 \$0.010 \$0.010 | 0.20 0.30 0.20 0.25 0.32 |
| | | | | TENDS | 0.368 (0.413) 0.366 (0.410) | 30 10 10 21 30 | 0.080 <0.010 <0.010 | 0.026 0.028 20.041 0.052 <0.020 | <0.010 <0.010 <0.010 <0.010 <0.010 <0.010 <0.010 | 0.64 0.92 0.22 0.15 <0.040 <0.040 Avg: <0.040 |
| RV155- 10HA | Region & 2010 | | Grange fruit | TRADU | 0.370 (0.415) 0.365 (0.409) | 30 | 0.020 0.020 0.020 0.026 | <0.020 <0.020 <0.020 <0.020 <0.020 | <0.010 <0.010 <0.010 <0.010 | 0.13 0.24 0.050 0.056 Avg: 0.053 |
| | FL, ORegion 3, 2,510 | | Orange fruit | TRIDS | 0.369 (0.413) 0.369 (0.414) 0.381 | 1 1 30 | 0.286 0.232 <0.010 <0.010 | <0.020 <0.020 <0.020 <0.020 <0.020 | <0.010 <0.010 <0.010 <0.010 | 0.32 0.26 <0.040 <0.040 |
| RV157- 10HA | 7010 2010 | Handin S | Orange Oit | TRTDD TRTDU | 0.361 (0.404) 0.362 (0.405) | 1 | 0.251 | <0.020 | <0.010 | Avg: <0.040 0.28 |
| \ \tag{\alpha} | | ~ | | TRTDS | 0.366 (0.410) | 30 | <0.010 <0.010 | <0.020 <0.020 | <0.010 <0.010 | <0.040 <0.040 Avg: <0.040 |



Table 6.3.2.1-7 (cont'd): Total BYI 02960 Residue Data from Citrus after a Single Soil Drench or Two Foliar Application(s) of BYI 02960 SL

| Trial Identification Location (City, State, NAFTA Region, and Year) Crop Variety Commodity Plot Name | Total Rate Ib a.s./A (Rea.s./ha) Sampling interval (days after last treatment) a BYI 02966 Residue (mg/kg) OFA Residue (mg a.s. equiv./kg) Total RY 102960 Residue Total RY 102960 Residue |
|--|--|
| RV158- 10HA Region 3, Early Gold Orange fruit TRTDD | 0.372 01 07.179 0<0.020 <0.010 0.21 |
| 2011 | |
| tridi | 0.368 1 |
| TRIDS (| 369 30 30 000 000 000 000 0000 |
| | 0.413 |
| Q g | |
| RV159- 10HA Region 3, | 0.377 0 1 0.6970 <0.020 <0.010 0.73 0.423\(\) |
| [2010] | |
| TRIDE OF TRIDE | 0.372 1 0.228 < 0.020 < 0.010 0.26 (0.416) |
| TRIDS OF | |
| | 0.374 30 0014 00020 00010 0.044 0.040 0.020 0.010 0.044 0.040 0.020 0.010 0.044 |
| | |
| RV160- 10HA OX O Orange fruit TRTDD | 0.042 0.370 0.135 <0.020 <0.010 0.17 |
| Region 6, TRADU | Ø375 |
| 2040 2040 | 0.420 |
| | 0.360 30 0.029 <0.020 <0.010 0.059 0.414) 0.013 <0.020 <0.010 0.043 Avg: |
| | Avg: 0.051 |
| RV161- CA, Spencia Orange fruit (KTDD) | 0.37 0 0.426 0.016 <0.010 0.45 |
| 10DA Region 10, 0 0 0 0 0 0 0 0 | 0.418) |
| RV161- 10DA Region 10, 2011 TRTDD TRTDS | 1 0.753 <0.020 <0.010 0.78 |
| | 3 1.46 0.053 <0.010 1.5 |
| | 10 0.410 0.041 <0.010 0.46 |
| | 21 0.488 0.079 <0.010 0.58 |
| | 0.365 0 0.490 0.015 <0.010 |
| | 1 0.577 <0.020 <0.010 0.61 |
| | 3 0.225 <0.020 <0.010 0.26 |
| | 10 2.08 0.097 <0.010 2.2 21 0.310 0.080 <0.010 |
| TRTDS | 0.365 30 <0.010 <0.020 <0.010 <0.040 |
| | 0.409) 0.015 0.020 0.010 0.045 |
| | Avg: 0.043 |



Table 6.3.2.1-7 (cont'd): Total BYI 02960 Residue Data from Citrus after a Single Soil Drench or Two Foliar Application(s) of BYI 02960 SL

| | | 1 WO | Foliar App | meanon(| 5) 01 D 1 1 | 02900 | SL | | | . Ö , |
|----------------------|---|----------------------|--------------|-----------|--|---|--|--|--|---|
| Trial Identification | Location (City, State, NAFTA Region, and Year) | Crop Variety | Commodity | Plot Name | Total Rate Ib a.s./A (kgas/ha) | Sampling interval (days afterdast treatment) a | Ary 02960 Residue (mg/kgr | DPP Residue (20) | DFEARResidur | A total BY 102960 Residue (Mea.s. equal Kg) b Co |
| RV162- 10HA | , CA, Region 10, 2010 | Mandarin- Satsuma | Orange fruit | TRTQÛ | 0.365 (0.410) 0.362 (0.406) 0.366 (0.440) | | <0.000 Q-012 | الإيم ال | <0.010 <0.010 <0.010 0.010 | 0.040 0.049 Avg: |
| RV163- 10HA | CA, Region 10, 2010 | | 7 | TRTDO | 0.376 (0.421) 0.344 (0.386) (0.410) | 1 3 % | 0.067 0.067 0.020 0.010 0.010 0.010 | <0.020 <0.020 <0.020 <0.020 <0.020 | <0.010 <0.010 <0.010 <0.010 | 0.045 0.097 0.050 <0.040 <0.040 Avg: <0.040 |
| RV164- 10DA | Fruit Region 3, 2010 | MA O | Lemon fruit | ARTDO | 0.368 | | Ø366 | 0.056 | <0.010 | 0.43 |
| | fruit Region 3, 2010 FL, | | | PRTDL | 0.369 | 10° 21° 0 | 0.349 0.440 0.192 0.073 0.171 | 0.073 0.098 0.103 0.128 <0.020 | <0.010 <0.010 <0.010 <0.010 <0.010 | 0.43 0.55 0.31 0.21 0.20 |
| 4 | | | | | (Ö¥13) | 1 3 10 21 | 0.214 0.100 0.042 0.018 | <0.020 <0.020 <0.020 <0.020 | <0.010 <0.010 <0.010 <0.010 | 0.24 0.13 0.072 0.048 |
| RV165- | FL, | Myer & | Lemon fruit | TR/TDS | 0.355 (0.398) 0.358 | 30 | <0.010 <0.010 0.230 ^j | <0.020 <0.020 <0.020 | <0.010 <0.010 <0.010 | <0.040 <0.040 Avg: <0.040 0.26 |
| 10HA | Region, 2016 | Myer of | | TRTDU | 0.369 (0.414) | 1 | 0.052 ^j | <0.020 ^j | <0.010 ^j | 0.082 |
| | | | | TRTDS | 0.364 (0.408) | 30 | <0.010 ^j <0.010 ^j | <0.020 ^j <0.020 ^j | <0.010 ^j <0.010 ^j | <0.040 <0.040 Avg: <0.040 |



Continued on next page...

Total BYI 02960 Residue Data from Citrus after a Single Soil Drench or Table 6.3.2.1-7 (cont'd): Two Foliar Application(s) of BYI 02960 SL

| | T | 1 WO | Foliar App | Tication(| 5) OI D I I | 02700 | J | Т | T | |
|----------------------|---|--|-------------|-----------|--|--|------------------------------|---|--------------------------------------|--|
| Trial Identification | Location (City, State, NAFTA Region, and Year) | Crop Variety | Commodity | Plot Name | Total Rate Ib a.s./A (Mga,s./ha) | Sampling interval (days after last treatment) a | BYI 02960 Residue (mg/kg) | Oto Residue (1907) (mg a Egquiv./kg | DFEAF Residue (mg a.s. coniv./kg) | Total RVI 02960 Residue |
| RV166- 10DA | CA, Region 10, 2011 | Lisbon | Lemon fruit | TRTDD | 0 366 0 410) | | 7.124 T | 7<0.020 | <0:010 | \$.95 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ |
| | | | | K, " 4 | | 3 (1) | 0.11% | <0.02 (C) <0.02 | <0.010 <0.010 0.010 | 0:45 |
| | | | . " | 0, , , | | _^%/I | 0.089 | ¥0.02 0 | <0.016 | 0.12 |
| RV166- 10DA | CA, Region 10, | Lisbon | Lemon truit | TRTOU | 375 0.420x | | 0.038 | <0.030 & | ₹0.010 © | 0.068 |
| | 2011 | | Ŏ Ş | | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ | \ 1 8 | 0.054 | <0.020 | <0.010 | 0.084 |
| | | \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ | | | ê ô | 3 % | 0,025 | <0.020 <0.020 | <0.010 | 0.084 |
| | | | | | | 10 | Ø3011 a | \$0.020 | < 0.010 | 0.041 |
| | | ľ L . | | | | ©21 | 0.016 | <0.020 | < 0.010 | 0.046 |
| | | . ()) | 1 % | TRIDS | °0.366 € | | <0.010 | <0.020 | < 0.010 | < 0.040 |
| | | | | | (0.410) | 30 0 | <0.010 | <0.020 | <0.010 | <0.040 Avg: <0.040 |
| RV167- 10DA 🌋 | , CA, Région 10, 2011 | Lisbon \$ | Lemon Truit | TRIDD | 0.364 | | 0.785 | <0.020 | <0.010 | 0.82 |
| | 2 | | | | 0 ~ | 1 | 0.255 | < 0.020 | < 0.010 | 0.29 |
| | Į į | | | | | 3 | 0.325 | < 0.020 | < 0.010 | 0.36 |
| | | | | p″ "Ö | | 10 | 0.183 | < 0.020 | < 0.010 | 0.21 |
| | | | | | | 21 | 0.194 | 0.021 | < 0.010 | 0.23 |
| | | | | TRYDU | (0.412) | 0 | 0.290 | < 0.020 | < 0.010 | 0.32 |
| Á | | | | , 9 | (0.112) | 1 | 0.713 | < 0.020 | < 0.010 | 0.74 |
| | \ | | | | | 3 | 0.437 | < 0.020 | < 0.010 | 0.47 |
| * | <i>@</i> , \ | "O" () | | L | | 10 | 0.541 | < 0.020 | < 0.010 | 0.57 |
| | | | 49 · | Q` | | 21 | 0.320 | 0.033 | < 0.010 | 0.36 |
| A | | | | TRTDS | 0.365 (0.409) | 30 | <0.010 <0.010 | <0.020 <0.020 | <0.010 <0.010 | <0.040 <0.040 Avg: <0.040 |
| | , CA, Région 10, 2011 | | | l | l | | | l Continue | l ed on nex | • |



Table 6.3.2.1-7 (cont'd): Total BYI 02960 Residue Data from Citrus after a Single Soil Drench or Two Foliar Application(s) of BYI 02960 SL

| | | 1,,,0 | топаг Арр | | 3) 01 13 11 | 02700 | OL . | | | 0_ | |
|----------------------|---|--------------|-------------|----------------------------------|--|---|---|--|--|---|--|
| Trial Identification | Location (City, State, NAFTA Region, and Year) | Crop Variety | Commodity | Plot Name | Tokal Rate Ib a.s./A (kg a.s./ha) | Sampling interval (days after last treatment) a | YI 62960 esidue (me/kg | DFA Residue CAC (mg/hs. equiv./kg | DEFAF Residue (mg %& equiv.Rg) | Toko BYI 02980 Residne | |
| RV168- 10DA | , CA, Region 10, 2011 | Lisbon | | RTDUS TRIDS | 0.367 | 10 34 214 40 40 40 40 40 21 40 21 40 | (0.010 (0.010 | <0.020 <0.020 <0.020 <0.020 <0.020 | \$\frac{9.010}{<0.010}\$ \$\left\{0.010}{\left\{0.010}}\$ \$\left\{0.010}{\left\{0.010}}\$ \$\left\{0.010}{\left\{0.010}}\$ \$\left\{0.010}{\left\{0.010}}\$ \$\left\{0.010}{\left\{0.010}}\$ \$\left\{0.010}{\left\{0.010}}\$ | 0.20 0.31 0.32 0.17 0.12 0.12 0.13 0.080 <0.040 <0.040 Avg: <0.040 | |
| RV169- 10HA | | Eureka (| Lemon fruit | TRIDD TRADU | 0.380 (0.426) 0.368 (0.412) (0.410) | | 0.28\$\text{0.352}\tag{0.352}\tag{0.010}\tag{0.010} | <0.020 <0.020 <0.020 <0.020 | <0.010 <0.010 <0.010 <0.010 | 0.31 0.38 <0.040 <0.040 Avg: <0.040 | |
| 4 | Region 10, 2011 | Esbon S | Lemon fruit | TRIDU TRIDU TRIDS TRIDS | 0.365 (0.410) 0.367 (0.412) 0.365 (0.409) | 1 30 | 0.233 0.669 <0.010 <0.010 0.183 | <0.020 <0.020 <0.020 <0.020 <0.020 | <0.010 <0.010 <0.010 <0.010 <0.010 | 0.26 0.70 <0.040 <0.040 Avg: <0.040 0.21 | |
| | CAZ Region 10 2010 | | | TRTDU TRTDS | 0.366 (0.410) 0.366 (0.410) | 30 | 0.037 <0.010 <0.010 | <0.020 <0.020 <0.020 | <0.010 <0.010 <0.010 | 0.067 <0.040 <0.040 Avg: <0.040 | |



Total BYI 02960 Residue Data from Citrus after a Single Soil Drench or Table 6.3.2.1-7 (cont'd): Two Foliar Application(s) of BYI 02960 SL

| 1 | | I | T Ondi 7 ipp | | 1 | | | | 1 | 0 |
|----------------------|--|--------------|---------------------|----------------|---------------------------------------|---|---------------------------------------|----------------------------|--|------------------------------------|
| Trial Identification | Location (City, State, NAFTA Region, and Year) | Crop Variety | Commodity | Plot Name | Rotal Rate Ib a.s. A. (kg a.s./ha) | Sampling interval (days after last treatment) a | BY (mg/kg) | DFA Residue | DFEAF Regidue (mg. &s. equiv./kg) | Total BYI Ozben Residum |
| Grapefru | | | | Ź | 2 | . Q | ذ | Ź, | \$, | |
| RV172- 10DA | | Flame | Grapefruit fruit | TRTDD | 0.367 (©411) | | Q.126 | 0.000 | <0.010 | 0.16 |
| | | | | | | 210 | 0.151 | <0.020 <0.020 <0.020 | <0.010 \$.010 \$0.010 \$0.000 | 0.16 0.12 |
| | | Ş | | TRTOU | ©69 (Ø.413) @ | | · · · · · · · · · · · · · · · · · · · | <0.020 | <0.010 <0.010 | 0.51 0.22 0.18 |
| | | | Q Table 1 | | Ø ô | **10 | 0.053 | <0.000 | <0.010 | 0.08 |
| | , a | | | TRTDS | | 25 | 0046 <0.010 | ₹9 .020 ₹0.020 | <0.010 | 0.08 <0.040 |
| | | | | | 0.360 | 30 | 0.010@. | <0.020 | <0.010 | <0.040 <0.040 Avg: <0.040 |
| RV173- 10HA | Reson 3 | White | Grapefruit ® | TRTD | 0. 36 7 (0 .411) | | % !185 | <0.020 | <0.010 | 0.22 |
| [| Region 3, 2010 | White S | | TRTDU | 0.363 (0.407) | 10 | 0.165 | <0.020 | <0.010 | 0.20 |
| | | | | TRT | 0.414) 2 | 30 | 0.047 0.029 | <0.020 | < 0.010 | 0.077 0.059 |
| | | | | TRT\$8 | |)* | 0.029 | <0.020 | <0.010 | Avg: 0.068 |
| RV174- 10HA | Kegwii 3, | White | Grapefruio Fruit | TRTO | (© 64 (6 .408) | 1 | 0.160 | <0.020 | <0.010 | 0.19 |
| 4,1 | 20 10 | | | TOTOU N | 7 0.381 (0.427) | 1 | 0.287 | <0.020 | <0.010 | 0.32 |
| | | Rio & d | | TR TO S | 0.368 (0.412) | 30 | <0.010 0.015 | <0.020 <0.020 | <0.010 <0.010 | <0.040 0.045 Avg: 0.043 |
| RV175- 10HA | , TX | Rio | Grapefred fruit | TRTDD | 0.370 (0.415) | 1 | 0.116 | <0.020 | <0.010 | 0.15 |
| | Region 5; 2010 5 | | | TRTDU | 0.374 (0.420) | 1 | 0.158 | <0.020 | <0.010 | 0.19 |
| | TX | Š | | TRTDS | 0.369 (0.414) | 30 | 0.014 0.014 | <0.020 <0.020 | <0.010 <0.010 | 0.044 0.044 Avg: 0.044 |

Table 6.3.2.1-7 (cont'd): Total BYI 02960 Residue Data from Citrus after a Single Soil Drench or Two Foliar Application(s) of BYI 02960 SL

| | | 1 00 | топаг Арр | mounon(. | 3) 01 2 11 | 02700 | OL | | | 0 | |
|----------------------|---|--------------|---------------------|---------------|---|---|--|--|---|--|--|
| Trial Identification | Location (City, State, NAFTA Region, and Year) | Crop Variety | Commodity | Plot Name | Total Rate Ib a.s./A (kg a.s./ha) | Sampling interval (days after last treatment) ^a | YI OZOGO Sidue (merke | DFA Residue (A) (mg/h,s. equiv./kg | DEFAF Residue (mg % equiv. Rg) | Toka BVI 02860 Residnem Hing a.stequiv./kg/th | |
| | , CA, Region 10, 2011 | Oro Blanco | | TRITOUS | 0.366 (0.410) 0.364 (0.408) | 1 0 3 0 1 0 0 1 0 1 0 0 0 1 0 0 0 1 0 0 0 1 0 0 0 1 0 0 0 1 0 0 0 0 1 0 0 0 0 1 0 | 0.056 0.056 0.041 | <0.020 <0.020 <0.020 <0.020 <0.020 | 0.010 | 0.16 0.16 0.16 0.18 0.086 0.071 Avg: 0.079 | |
| | Region 16, 2010 | | Grapefruit fruit | TRTDS (| 0.368 (0.412) (0.407) 0.366 (0.410) | ¸3 © ″ | 0.185 0.062 0.011 <0.010 | <0.020 <0.020 <0.020 <0.020 | <0.010 <0.010 <0.010 <0.010 | 0.22 0.092 0.041 <0.040 Avg: 0.041 | |
| Fruit (ad | lditionæl samr | tor resi | due Ĉe ducti | and determine | ninatian) | c | | | | | |
| RV159- 10HA | FL, Region 3, 2010 | Valencia (| Orange frait | TRTO | 0.344 (0.386) | 1 | 0.076 0.102 0.076 0.055 0.045 0.045 | <0.020 <0.020 <0.020 <0.020 <0.020 <0.020 <0.020 | <0.010 <0.010 <0.010 <0.010 <0.010 <0.010 ed on nex | 0.11 0.13 0.11 Avg: 0.11 0.085 0.075 0.075 Avg: 0.078 | |
| E, C | | | | | | | | | | | |

Table 6.3.2.1-7 (cont'd): Total BYI 02960 Residue Data from Citrus after a Single Soil Drench or Two Foliar Application(s) of BYI 02960 SL

| | | 1 110 | Foliar App | 110411011(. | 3) 01 11 1 | 02700 | OL | | | 0 |
|----------------------|---|---------------------|------------------|-------------|------------------------------------|--|---------------------------------------|--------------------------------------|------------------------------------|--|
| Trial Identification | Location (City, State, NAFTA Region, and Year) | Crop Variety | Commodity | Plot Name | Tokal Rate Ib a.s./A&& a.s./ha) | Sampling interval (days after last treatment) a | BYI 192960 Residue (m&/kg) | DFA Residue AQ (Mg∑as. equiv./kg | DELAF Residue (mg kesequiv./kg) | Tokh BYI 02960-Residue// |
| RV166- 10DA | CA, Region 10, 2011 | Lisbon | Lemon fruit | TRTDLA | 0.375 (0.420) | | 00017 0017 0.012 0.012 | <0.020 <0.020 <0.000 | 0.010 <0.010 <0.010 | 0.007 0.047 0.042 Avg: 0.045 |
| | , FL, Region 3, 2010 | White | Grapefruit fruit | TRIDIT | 0381 (0,427), | | 0.360 0.360 0.360 | 0.020 <0.000 <0.000 <0.000 | <0.010 <0.010 <0.010 | 0.39 0.39 Avg: 0.38 |
| Fruit Pee | el (for residue | reduction | determinat | ion) | \$. Q | | \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | ~0 | C . | |
| RV159- 10HA | FL, Region 3, 2010 | Valencia S | Orange peel | | 0.372 (0.4 16 6) | | 0.450 0.310 0.279 | <0.020 20.020 <0.020 <0.030 | ©0.010 <0.010 <0.010 | 0.48 0.34 0.31 Avg: 0.38 |
| RV163- 10HA | CA, Region 10, 2010 | Ölinda Valensia | Orange peck | | 0.344 | | ©121 | ©0.020 <0.020 <0.020 | <0.010 <0.010 <0.010 | 0.15 0.14 0.15 Avg: 0.15 |
| RV166- 10DA | CA, Region 10, 2011 | Lisbon | Femon pecl | TRADU | 02375 (0.420) (0.420) | | 0.043 0.043 0.041 | <0.020 <0.020 <0.020 | <0.010 0.014 <0.010 | 0.073 0.077 0.071 Avg: 0.074 |
| | | | Grape@oit peel | | 0.381 (0.429) | 1 | 0.607 0.540 0.642 | <0.020 <0.020 <0.020 | <0.010 <0.010 <0.010 | 0.64 0.57 0.67 Avg: 0.63 |
| Fruit Pul | p (for resid | reduction | determina | ion)c | | | | | | |
| RV159- 10HA | , FL, Region 3 | Valencia | Orange pup | TRÊÐU Ç | 0.372 (0.416) | 1 | <0.010 <0.010 <0.010 | <0.020 <0.020 <0.020 | <0.010 <0.010 <0.010 | <0.040 <0.040 <0.040 Avg: <0.040 |
| RV163- 10HA | CA Region 10, | Olmda Ö Valencia | Orange pulp | TRTDU | 0.344 (0.386) | 1 | <0.010 <0.010 <0.010 | <0.020 <0.020 <0.020 | <0.010 <0.010 <0.010 | <0.040 <0.040 <0.040 Avg: <0.040 |

Table 6.3.2.1-7 (cont'd): Total BYI 02960 Residue Data from Citrus after a Single Soil Drench or Two Foliar Application(s) of BYI 02960 SL

| | | | | | | | | | | 0 |
|----------------------|---|--------------|--------------------|-----------|-------------------------------------|--|--------------------------------|------------------------------------|-----------------------------------|--|
| Trial Identification | Location (City, State, NAFTA Region, and Year) | Crop Variety | Commodity | Plot Name | Tokal Rate Ib a.i./Alkg a.s./ha) | Sampling interval (days after last treatment) a | BYI (P2060) Besidue (mg/kg) | DFA Residue (神変元) (開変元s. equiv./kg | DECAF Residue (mg %sequiv./kg) | Toka BY1 02960-Residue |
| RV166- 10DA | CA, Region 10, 2011 | Lisbon | Lemon pulp | TRTDL | 0.375 (0.420) | | <0.010 × | C (| 0.0100 <0.010 <0.010 | <0.000 <0.040 <0.040 Avg: <0.040 |
| RV174- 10HA | , FL, Region 3, 2010 | White | Grapefruit pulp |)' 'Y | 0.3/81 (0.427) | | <0.016 <0.016 <0.046 | <0.026 <0.620 <0.020 | <0.010 <0.010 0.010 | <0.040 <0.040 <0.040 Avg: <0.040 |

- days after last treatment = interval between last application and sarupling
- Total BYI 02960 residue is the sum of BYI 02060, DFA, and DFEAF residues in parent conivalents. Residue measurements below the analyte LOQ were summed into the total BYI 02960 residue value as the analyte LOQ value. These totals represent the upper limit of what the residue legots might be.
- Each trial conducting a residue colluction determination coated a single sample each of whole fruit, pulp, and peel, and each sample was analyzed in furplicate for residues of BVI 02960, DFA, and DFEAF.

TRTDU = treated plot seceiving two concentrate (altra-low volume) airblest applications

TRTDS = treated plot receiving two didute airblast applications

Maximum residue values for the different application scenarios and crops are printed in bold.

Total BYI 02960 Residue Data on Citrus Collected Immediately Prior to the Final Table 6.3.2.1-8: Foliar Application of BYI BYI 02960

| 1 | | · · · FF | ication of i | | | | | | | |
|----------------------|---|--------------|-----------------------|--------------|---|--|------------------------------|---------------------------------------|-----------------------------------|---|
| Trial Identification | Location (City, State, Region, and Year) | Crop Variety | Commodity | Plot Name | Rate ^a Ib a.i./Alfig a.s./ha) | Sampling Interval (days after first treatment) ^b | BY1 42260 Residue (mc/kg) | DFA Residue (Mg/kg) (mg/ks. equiv./kg | DELAF Residue (mg % equiv. Rg) | Toka BYI 02860 Residik -(mg a.s/24µiv./kg/2) |
| RV152- 10DA | , FL, | Hamilins | Orange fruit | TRTDD | 0.187 (0.209) | 8 DA A1 | 000 37 | 90.02Q | 0.010 | 0.087 |
| IUDA | Region 3, 2010 | | | & | | ~ Y | | | `~\\ | |
| | | | | TRTDU | (0.20 9) | 8 DA O | 0.287 | <0.020 | \$0.010 \$0.010 | 0.32° |
| RV153- | , FL, | Valencia | Orange fruit | TRAND | 0.181 | 9DAA1 | (0.108) | <0.020 | < 0.010 | 20 14 |
| 10DA | Region 3, 2011 | | | | (V.202) | | | | | 0 |
| | | | | ĎŤRTĎÔ⁄ | 0.184 (?. 306) | 9 D *A1 | 3 105 | 0.020 | <0.040 | 0.14 |
| RV154- | , FL, | Navel | Orange Fruit | TKOTDD | \$ 180 C | 10 | 0.16P | < 99 20 | \$0.010 | 0.19 |
| 10DA | Region 3, 2010 | | <u>_</u> % | 9 4 | (0.202) | 4 | | Ö | O | |
| | | | | TRADU | 0.187 (9.210) | √10 × | 0.261 | 0.022 | <0.010 | 0.29 |
| RV155- | , FL, | Navel \$ | Orange fruit | PRTDD | 0.186 | 10 V DAA1 | @ 091 | ×9.020 | < 0.010 | 0.12 |
| 10HA | Region 3, 2010 | | \$ 7 | | (0.209) | © | | ₩ | | |
| | | ~ 4 | ¥ ~ | TRYDU | °>0.185 | 10 Ø DAA | 0.HQ | <0.020 | <0.010 | 0.16 |
| RV156- | , FL | Hamler | Orange fruit | /TRŢDD | 0,185 (6,207) | ₩ | 2 0.104 | < 0.020 | < 0.010 | 0.13 |
| 10HA | Region 3, 2010 | | S À | | , . | DAA1 | | | | |
| Į Ž | 1 7 1 2 | | | TRTDUĆ | 0.184) (0.206) | 100″ DAA1 | 0.076 | <0.020 | <0.010 | 0.11 |
| RV157- 10HA | , F | Hamilin | Grange Front | TRADD | 2 | 1 | 0.103 | < 0.020 | <0.010 | 0.13 |
| IOHA | 2010 | | Prange man | | (0.202) | | | | | |
| | | | | TRTDY | 0.180 (\$\hat{9},202) | 10 DAA1 | 0.237 | <0.020 | <0.010 | 0.27 |
| RV158- 10HA & | FL, | Farly Gold | Orang e f ruit | TRETDD | ©0.185 (0.208) | 9 DAA1 | 0.071 | <0.020 | < 0.010 | 0.10 |
| | Region 3, 2011 | | | | | | | | | |
| | | | | TRADU | 0.184 (0.206) | 9 DAA1 | 0.246 | <0.020 | <0.010 | 0.28 |
| RV159- | , FL ₂ | Valenda | Orange fruit | RTDD | 0.186 | 10 | 0.119 | < 0.020 | < 0.010 | 0.15 |
| 10HA | Region 3, 2010 | | | | (0.209) | DAA1 | | | | |
| all a | | | F | TRTDU | 0.187 (0.209) | 10 DAA1 | 0.031 | <0.020 | <0.010 | 0.061 |
| | | | 1 | | (0.20) | ~ | I | Continu | ed on nex | t page. |
| Æ, | | | | | | | | | | 1 .6 |
| Ĉ | Ĩ | | | | | | | | | |

Table 6.3.2.1-8 (cont'd): Total BYI 02960 Residue Data on Citrus Collected Immediately Prior to the Final Foliar Application of BYI BYI 02960

| 1 | | | топат Арј | | | | | | | 0 |
|----------------------|---|---------------------|---------------|----------------------|--|--|------------------------------|---|------------------------------------|-------------------------|
| Trial Identification | Location (City, State, Region, and Year) | Crop Variety | Commodity | Plot Name | Rate" Ib a.i./*(leg a.s./ha) | Sampling Interval (days after first treatment) ^b | BY1 42460 Residue (mg/kg) | DFA Residue (Mg/kg) (mg/ks. equiv./kg | DEFAF Residue (mg %& equiv./kg) | Tord BYI 02900 Residies |
| RV160- 10HA | TX, Region 6, 2010 | N-33 | Orange fruit | TRTD | 0.186 (0.208) (0.308) (0.306) | 9 ÞAA1 9 DAA1 | 0.083 | © .020 © .020 © .020 | 0.010 0.010 0.010 | 0.0 |
| RV161- 10DA | , CA, Region 10, 2011 | Valencia | Orange Whit | TŘIVĎD K TRTDU | Ø.187 × (0.209) × (0.82 | DAAY DAAY VII | 0.937 | 0.0 5 4 5 <0.0 20 | <0.010 <0.010 | 0.33 |
| RV162- 10HA | , CA, Region 10, 2010 | Mandarin Satsuma | Orange/fruit | TRTDD | 0.204) 0.183 (0.295) | 7 DAAI | 0.041 | <0.020 <0.020 \$\frac{4}{2}\$ <0.020 | <0.010 | 0.071 |
| RV163- 10HA | CA Region 10 201 | Volinda Valencia | Orange fruit | | 0.193 (0.216) | IV DAA1 | Ø 089 | © 0.020 | <0.010 | 0.12 |
| | | y Ki | 0 × | TRTD | 0.1 9 (6 .775) | DAA1 | Ø.042 | <0.020 | <0.010 | 0.072 |
| RV164- 10DA | FL, Region 3, 7 2010 | | Lemon | | 0.184 | DAOI | 0.274 | 0.063 | <0.010 | 0.35 |
| | <u> </u> | | | TRIDU | 0.184 ((0.207) | 7 12 DAA1 | <0.010 | <0.020 | <0.010 | 0.040 |
| RV165- 10HA | FL, Region 3, 2010 | | Lengton frent | | 0 179 (\$\frac{179}{200}) | 9 DAA1 | 0.190e | 0.024 ^e | <0.010e | 0.22 |
| | Ÿ Ų | | | TRTAI | 0.184 (0.206) | 9 DAA1 | 0.056e | <0.020e | <0.010e | 0.086 |
| RV166- 10DA | Regin 10 | Lisbon | Lemon fruit | TRIDD | 0.183 (0.205) | 10 DAA1 | 0.030 | <0.020 | <0.010 | 0.060 |
| ~ | | | | | 0.191 (0.214) | 10 DAA1 | <0.010 | <0.020 | <0.010 | 0.040 |
| RV167- 1010A | Region 100 2011 | Liston Liston | Lemon fruit | | 0.181 (0.203) | 11 DAA1 | 0.093 | <0.020 | <0.010 | 0.12 |
| | | | | TRTDU | 0.185 (0.207) | 11 DAA1 | 0.138 | <0.020 | <0.010 | 0.17 |

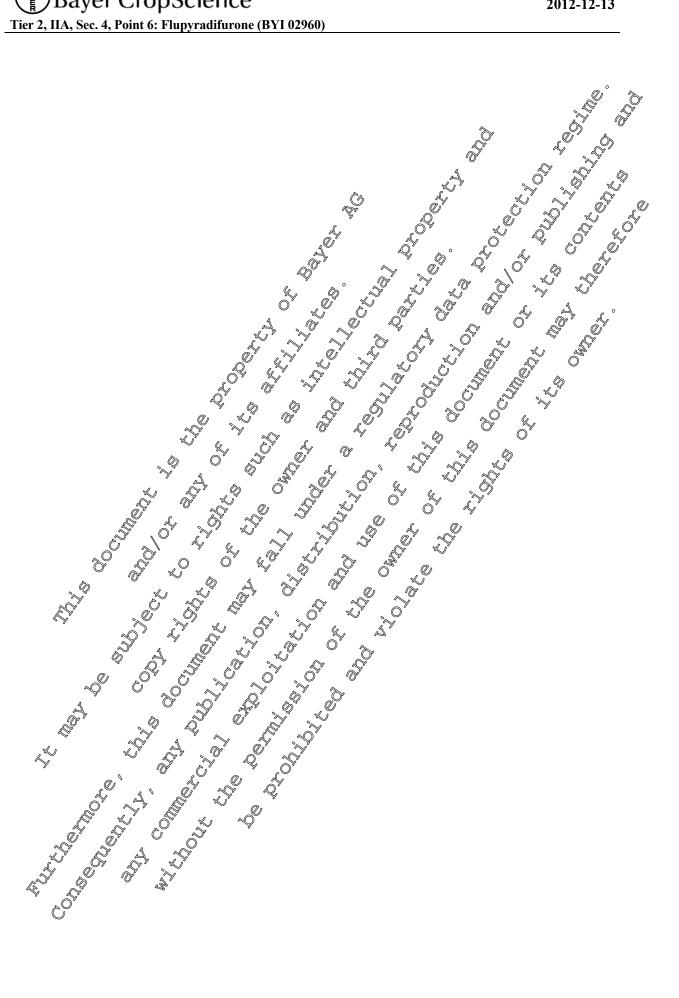


Table 6.3.2.1-8 (cont'd): Total BYI 02960 Residue Data on Citrus Collected Immediately Prior to the Final Foliar Application of BYI BYI 02960

| | 1 | ı | T Onar 7 ipj | 1 | 1 | 1 | ı | П | 1 | 0 |
|----------------------|---|-------------------------|----------------------|---------------------|---------------------------------|--|------------------------------|-------------------------------------|-------------------------------------|--------------------------|
| Trial Identification | Location (City, State, Region, and Year) | Crop Variety | Commodity | Plot Name | Rate a Ib a.i./Alag a.s./ha) | Sampling Interval (days after first treatment) ^b | BYI 62960 Residue (mg/kg) | DFA Residue Mais. (mg. s. equiv./kg | Dige AF Residue (mg k& equiv.Rg) | Toka BY1 02960-Residue// |
| RV168- 10DA | , CA, Region 10, 2011 | Lisbon | Lemon fruit | TRTDD | 0.183 (0.205) | DONA1 | (6)52 | Ø.020 | 0.01 0 | 0.188° |
| RV169- 10HA | , CA, Region 10, 2010 | Eureka | Lemon fruit | TRTDD: | 0.189 (0.218) (0.184) | 1000 DAQI >> 1000 | 0.295 | <0.020 <0.020 <0.020 | \$0.010 \$0.010 \$0.010 | 0.23 ° |
| RV170- 10HA | , CA, Region 10, 2011 | Lisbon | Lerhon fruit | PTRTDD | 0.2060 0.182 (0.304) | DAAY DAA1 | 767 767 | \$0.020\$ | (V) (V) (V) (V) | 0.20 |
| | | Ş | % (| TRTDU | 0.184 (0.297) | 110 DAA1 | 0.349 | <0.020 | 0.010 | 0.38 |
| RV171- 10HA | CA, Region 10, 2010 | Ęu lė ka | Lomon figur | TRTOD | 0.182 (9.204) | DAA1 | · ~ | <0.026 2 2 2 | <0.010 | 0.10 |
| | | | Ñ I | TRTDU | 0.207) | Ø10 ØDAAL | 0.018 | <0.020 | <0.010 | 0.048 |
| RV172- 10DA | Region 3, 2011 | Flame | Grasefruit Puit & | | (0.181 (0.2 0 2) | 9 DAON | 0: 67 0 | <0.020 | <0.010 | 0.10 |
| RV173- | | | Chanafauit | TRÝDU S TRTĎÐ | 0.184 (0.206) 0,182 | DAAL | 0.069 | <0.020 | <0.010 | 0.099 |
| 10HA | FL, Region 2010 | White | Grapefruit | | (4) 204) | 9 B XA1 | 0.127 | <0.020 | <0.010 | 0.10 |
| | | | | TRTING | 0 180 (202) | 9 DAA1 | 0.085 | <0.020 | <0.010 | 0.12 |
| RV174- 10HA | Region 3, 2010 | White | Grape Fuit fruit | TRÎ DD | ♥0.182 ♥ (0.204) | 9 DAA1 | 0.108 | <0.020 | <0.010 | 0.14 |
| ** | *** | \\ \Phi' \(\(\) \(\) | | TRODU | 0.181 (0.203) | 9 DAA1 | 0.187 | <0.020 | <0.010 | 0.22 |
| RV175- 10HA | TX, TX, Zgion 62 | Rio Red | Groefruit Fruit | Q,RTDD | 0.186 (0.209) | 9 DAA1 | 0.065 | <0.020 | <0.010 | 0.095 |
| | | | | TRTDU | 0.185 (0.207) | 9 DAA1 | 0.106 | <0.020 | <0.010 | 0.14 |
| RV406- 1010A | Region 10, 2011 | OrcePlanco | Grapefruit fruit | TRTDD | 0.182 (0.204) | 11 DAA1 | 0.116 | <0.020 | <0.010 | 0.15 |
| | | | | TRTDU | 0.183 (0.205) | 11 DAA1 | 0.074 | <0.020 | <0.010 | 0.10 |



Continued on next page...

Table 6.3.2.1-8 (cont'd): Total BYI 02960 Residue Data on Citrus Collected Immediately Prior to the Final Foliar Application of BYI BYI 02960

| Trial Identification | Location (City, State, Region, and Year) | Crop Variety | Commodity | Plot Name | Rate & Li./A (************************************ | Sampling Interval (days after first treatment) b | BYI 029600 Residue (mg/kg) | Den Residue (20) | DřEzy Residue (mg a.s. eduiv./kg) | Total BX 102960 Residue | |
|----------------------|---|--------------|---------------------|-----------|--|---|-------------------------------|---|--------------------------------------|-------------------------|--|
| RV177- 10HA | , CA, Region 10, 2010 | White | Grapefruit fruit | TRTDD | 0.186 69.208) 0.489 (0.204) | OAAL DAAL IIV DAAL | 0.079 0.056 | \$\int <0.020 \\ \times \\ \times 0.020 \\ \times \\ \tim | <0.010 0<0.010 | 3 1 | |

- The residue data in this table are after a ongle application of BY, 02960 and target oute of \$83 lb Q/A (205 g a.s./ha). A single application does not represent the proposed use pattern of two applications of BØ 02960 total rate of 0.183 lb a.s./A/application (205 g a.s./ha/application). Therefore, the lata in this table are provided for information only and should not be used for the setting of tolerance or risk assessment.

 Sampling Interval: DAA1 = days after first treatment (application)
- Total BYI 02960 residue is the sum of BYI 02960, DFA, and DFEAF residues in parent equivalents. Residue measurements below the analyte LOQ were summed into the total BXI 02960 residue with analyte LOQ value. These totals represent.

 d NA = Not available.

 e Sample analyzed twice; average value reported here.

 TRTDU = treated plot receiving two concentrate (ultra-low volume) airbitst applications.

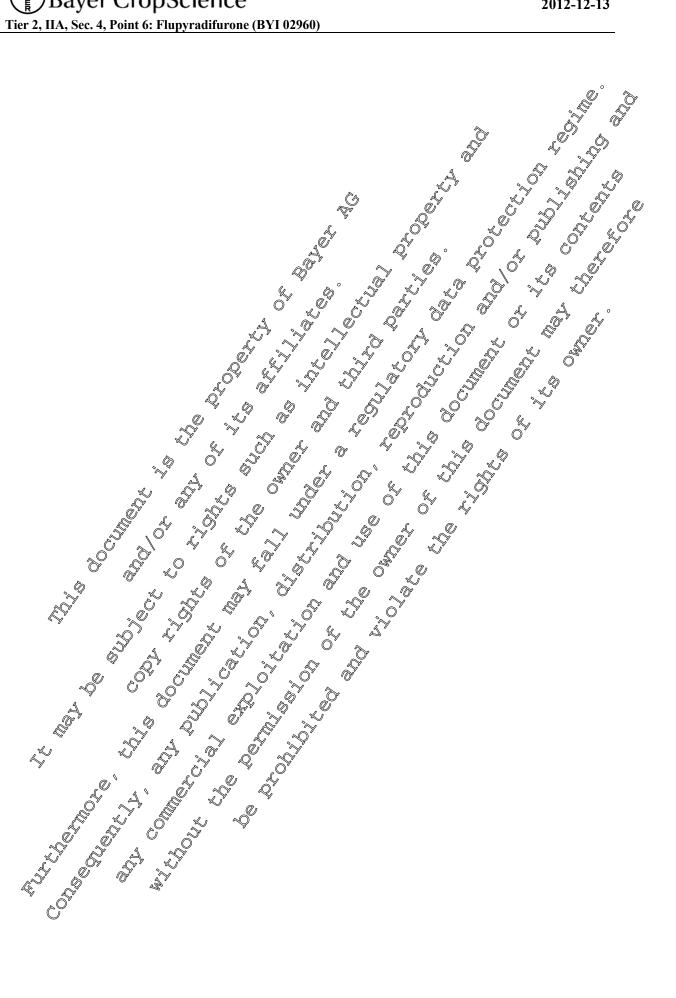
 TRTDU = treated flot receiving two dilute airbitst applications. These totals represent the upper that of what the stidue levels might be after only one application of BYI 02960.

Table 6.3.2.1-9: Effect of Processing on Total BXI 02960 Residue

| Plot Name | ©Commodity | PHI (Ére-Harvest O Interval) | Processing Factor | Average Processing Factor |
|------------|----------------|------------------------------------|---------------------------|------------------------------|
| | Grapefruit RAC | Interval) | NA NA | |
| TRTE | Peel | | 1.7 | |
| | Pulp 🔊 | | 0.10 | |
| y | Lemon RAC | | NA | D 1 21W |
| TRTDU | Leel Q | | 1.6 | Peel = 2.1X $Pulp = 0.46X$ |
| | Pulp & | 4) ~ © | 0.89 | 1 uip 0.402 |
| TDANS | Fange RAC | | NA | |
| TRTOU | S Peel S | 1 | 3.3, 1.9 (average 2.6) | |
| (2 frials) | ©Pulp 🔊 | | 0.33, 0.51 (average 0.42) | |

TRTDU eated plot receiving two concentrate (ultra-low volume) airblast applications

Results in this table are based on "additional samples" as shown above in Table 6.3.2.1-7





Conclusion

Twenty-six field trials were conducted to measure the magnitude of total BYI 02960 residues in/on the fruit of grapefruit (six trials), lemon (eight trials), and orange (12 trials) (representative commodities for NAFTA Crop Group 10; Citrus Fruits) following either two airblast applications (diluted or concentrated spray) or one soil drench application of BYI 02960 200 SL. Tendecline trials were conducted after foliar application; 4 in orange, 4 in lemon and 2 in grapefruit.

Table 6.3.2.1-10: Summary of Residue Data for Total By I 02960 from Citrus

| | | | | | ¥ Š | ×2,1 | <u> </u> | | N. S. | <u> </u> | |
|------------|----------------------------|--|-----------|-----------------|----------------|--------------|---------------------------|------------------------|---------------|----------|-----------------------|
| _ | _ | ∀ | | .4 | ~// ~ | Total B | YJ Ø2960 | Residu | e Levels | (ppm) | y L° |
| Commodity | Use Pattern description | Total Appl. Rate lb a.s./ (kg a.s./ha) | PRD(days) | | Min at 2 | | Mak after PKN | HAFF | Wedian (*) | W gueôNg | Standard Deviation |
| | 2 foliar (dil.) | 0.364 to 0.370 (0.408 to 0.405) | | 6 | 90.15 9 | 0.22 | | XQ ⁴ | ©21 § | 0.20 | 0.034 |
| Grapefruit | 2 foliar (con | 0.363 to \$381 (0.407 to 0.427) | | ĈÉ | | ©0.32 | \$ `\\ | NA D | 0.20 | 0.20 | 0.075 |
| | soil drench | 0.360 to 0.369 (0.403 to 0.414) | 30 | 13 | <0.040 | 0.686 | & ⁶ | y % | 3 .044 | 0.052 | 0.017 |
| | 2 foliar (dil.) | 0.402 6 0.426 | | ₹ 8 ~ | 0.15 | 0.430 | 0.55© (30 ⁵ | NA | 0.28 | 0.28 | 0.082 |
| Lemon | 2 follor (con | (Q 410 to Q .420) | | | 0.067 | ©0.74 | \$ () | NA | 0.18 | 0.30 | 0.28 |
| | soil drench | 0.355 to 0.3662 (0.358 to 0.400) | 30 | 18Ĉ | 0.040° | <0.0240 | | <0.040 | <0.040 | <0.040 | 0.0 |
| | 2 foliar (dil.) ≈ | 9561 to 0.377 (0.404 th 0.423) | | §12 | 0×097 & | 0.78 | 1.5 (3) ⁵ | NA | 0.25 | 0.31 | 0.22 |
| Orange | 2 folia | (0 3 % to 0 4 20) | O S | 12) O | 0.050 | 608 1 | $2.2 (10)^5$ | NA | 0.26 | 0.37 | 0.25 |
| | Soil drench | 0.404 to 0.429) | 300 | 24 _© | 20.04g | 0.071 | 6 | 0.061 | <0.040 | 0.045 | 0.008 |

¹ Data from the decline to a samples collected at intervals other than a 1- or 30-day PHI are not included in this table.

The change in the total BYI 02960 residue with time in the grapefruit, lemon, and orange samples was variable depending on the trial. In general, the total BYI 02960 residue either declined or leveled off

² HAFY = Highest Average Figure Trial

³ calculated on the basis of the residue values at the PHO

⁴ NA = Not Applicable. Only one sample was collected from each plot with dilute airblast applications and one sample from each plot with low volume applications. See the maximum residue for the highest residue observed from a given

⁵ sampling day after PHI which showed the highest residue

by the end of the sampling interval. The highest residue was always detected before the last sampling event (21 days after the last treatment).

The effect of the common food preparation practice of peeling citrus on the total BYI 02960 residue is as follows: peeling the fruit reduced the total BYI 02960 residue in citrus pulp by an average processing factor of 0.46X. The total BYI 02960 residue in citrus peel increased when compared to the whole fruit by an average processing factor of 2.1X.

The total BYI 02960 residues in the representative commodities for NAFTA Crop Group 10 Citrus Fruits; grapefruit, lemon, and orange) were within a factor of 5 of each other and therefore, within the EPA guidelines for the establishment of a group to each other crop Group 10.

To address EU requirements for residue trials on small citrus truits eight additional field trials were conducted to measure the magnitude of BYI 0296 pesidues in/on mandarin oranges.

| Report: | KIIA 6.3.2.1/02c |
|--------------------|--|
| Title: | BYI 02960 200 St Magnitude of the Residue In/on Mandarin Orange (CG 19) |
| Report No & | RARVP064 Cated June 5, 2012 2 2 2 2 |
| Document No | M-43218401-2 |
| Guidelines: | US: EPA Residue Cherustry Test Guidelines OPPTS 600.1500, Crop Field Trials |
| | Canada. PMRA DACO 7.4. Supervised Residue Trial Study |
| | DATE DATE A DATE OF A DESTRUCTION OF A STATE |
| | GCD: Gridelines for the Testing of Chemicals, 509, Cop Field Trial, Adopted Sept. 7, |
| | |
| GLP Ĉ | Yes Y S Q S |

Following either two airblast spray applications of BY102960 200 SL (diluted spray), two ultra-low volume applications of BY102960 200 SL (concentrated spray) or one soil drench application of BY102960 200 SL, refevant esidues were determined in mandarin oranges. BY102960 200 SL is a soluble concentrate formulation ontaining 200 g BY102960/L. The number and location of field trials conform to the guidance given by the EPA (Table 6.3 2.1-11).

Table 6.3.2.1-11: Trial Numbers and Geographical Locations for BYI 02960 on Mandarin Orange

| NAFTA Growing Region | Submitted ^a | Requested 0 |
|----------------------------|------------------------|-------------|
| 1 | | Requested |
| 1A | | |
| 2 | Ŷ, | |
| 3 | 3 | |
| 4 | 3 | |
| 5 | Y OY | N Q S |
| 5A | | |
| 5B | | |
| 6 | | ON R |
| 5B 6 7 | | |
| 7 7A 0 4 4 5 8 9 4 4 4 5 5 | | |
| 8 0 0 5 | | |
| 1000 | | |
| 100 7 | 4 64 6 | |
| 11 | | Ö |
| 12 4 5 0 | | 5 |
| Total | | , v |
| Total Total | \$ 8 W | |
| Total O | 8 2 8 | 8 |

a Eight mandarin orange trials were conducted in citrus prowing egions in the United States to address citrus crop residue requirements from Europe.

Material and Methods

Three use patterns/application forms were tested: either 2 dilute or 2 concentrated foliar airblast applications, or a single-soil depich. For plots receiving two airblast applications – either dilute or concentrated – , individual application rates, ranged from 0.173 to 0.190 lb BYI 02960/A/application (0.194 to 0.214 kg BYI 02960/ha/application) and total seasonal application rates ranged from 0.357 to 0.380 lb BYI 02960/A (0.400 to 0.426 kg/BYI 02960/ha). The interval between the applications was 8 to 10 days.

For plots receiving a single soft drench application, application rates ranged from 0.364 to 0.366 lb BYI 02960/A₀₀.408 to 0.410 kg BYI 02960/ha), except for 2 plots, RV224 and RV228. These plots each madventently received too high applications of 0.904 lb BYI 02960/A/application (1.013 kg BYI 02960/ha).

All applications were made at growth stages ranging from BBCH 72 to 89 (BBCH 72: Green fruit surrounded by sepal crown; BBCH 89: Fruit ripe for consumption; fruit has typical taste and firmness; beginning of senescence and fruit abscission).

All applications were made using ground-based equipment. An adjuvant (Dyne Amic, or other NIS) was used in all of the applications. In plots receiving a concentrated spray, Corus Oil was used as an additional adjuvant.

Table 6.3.2.1-12: Trial Site Conditions for BYI 02960 on Mandom Orange

Trial Site Conditions for BYI 02960 on Mandain Orange

| | | Soil Q | Paracteristics | × / / / / / / / / / / / / / / / / / / / | Meteorolo | gical Data |
|-------------------------|---|-------------------|----------------|---|---------------------|------------|
| Trial Identification | Trial Location (City, State/ Country, Year) | Type | OM pho | CEC (meq/100go soil) | Total Rainfall (in) | Temp Range |
| RV221-11DA | , FL USA 2011 | Sand . | 7.4 | 4.4 | 9.64 | 55-80 |
| RV222-11DA | , FL USA 2011 | Sand | J.5 7.3 | 6.4 | 7.85 C | ©2-82 |
| RV223-11DA | , CA USA 2011 | n° Loam | 24 7.9 | 9 3.9 | 451 | ♥ 32-77 |
| RV224-11DA | USA 201 | LOSMA | 2.09 Ç7 | 13.3 | 01.41 | 33-61 |
| RV225-11DA | USA 2011 | | 0.6 6.6 | \$3.7 \$\frac{1}{3} | 0°87 | 54-80 |
| RV226-11DA | , T U.S.A. 2015 | Sandy Gay Loam | 0.6 | 7.8 | 0.25 | 66-100 |
| RV227-11DA | , CA USA 2011 | y Soam | \$\$ 894 | 17.0 | 4.51 | 32-77 |
| RV228-11DA | CAGUSA 2011 | Sandy Clay Lisam | 7.4 | 21.8 | 0.83 | 33-60 |

Abbreviations used: %OM = percent organic matter &EC = caron exchange capacity.

Trial site conditions, including soil characteristics are summarized in Table 6.3.2.1-12. Study use patterns are summarized in Table 6.3.2.1-10.

Data is for the interval of the most of first application through the soonth of tast sampling.

Study Use Pattern for BYI 02960 200 SL on Mandarin Orange Table 6.3.2.1-13:

| | , | - Te | Applicat | ion | | | | | | 0 |
|----------------------|---|-------------------------------|-----------|-------------------------|-------------------------------|--------------------------------|--|----------------------|------------------------------------|-----------------------------------|
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Wethod | Timing/Growth Stage (BBCH) | Actual Spray Volume GPA | Rate lb a.s./A | Retreatment Interval | Total Rate Abas. A Con (kg #3.4ha) | Tank Wing Adjuvants |
| RV221- 11DA | FL Region 3 2011 | BYI 02960 SL 200 | TRTDD | And last (dilute) appla | BBCA | 220 (2)10) | 0.182 0.204) 0.182 0.182 0.204 | | | NIS NIS |
| RV221- 11DA | FL Region 3 2011 | BYI 02960 SL 200 | TRTDO | Últra QLow Volume | BBCij | 28 (26) (26) | 0.204 0.204 0.184 0.206 | NA. | © 0.365 (0.410) | Citrus Oil + NIS Citrus Oil + NIS |
| RV221- 11DA | FL Region 3 2011 | BYI 029665 SL 2067 | TRIDS | Soil Soil | | , W | ©0.364 (0.408) | NA | 0.364 (0.408) | NIS |
| RV222- 11DA | FL Region 3 | BYI 02960 SL 2000 | TRADD | Airblase (dilate appl.) | BBCH 81 SBCH 83 | 225 (2100) 225 (2100) | 0.181 (0.203) 0.181 (0.203) | NA 10 | 0.363 (0.406) | NIS NIS |
| RV222- 4 11DA & | FL Region 3 2011 | SL 280 | | Ultra Low Volume | BBCH 81 | 2.8 (26) | 0.184 (0.207) | NA | 0.357 (0.400) | Citrus Oil + NIS |
| | | | | , | BBCH 83 | 2.6 (24) | 0.173 (0.194) | 10 | | Citrus Oil + NIS |
| RV222 11DA | FIOR egion | DAZI OMOČO | TRTDS | Soil drench | BBCH 79 | NA | 0.365 (0.409) | NA | 0.365 (0.409) | NIS |



Table 6.3.2.1-13 (cont'd): Study Use Pattern for BYI 02960 200 SL on Mandarin Orange

| | | (i) | Applicat | ion | | | | | | 0 |
|----------------------|---|-------------------------------|------------|-------------------------|-------------------------------|--------------------------------|------------------|----------------------|----------------------|------------------------|
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | pour last | Timing/Growth Stage (BBCH) | Actual Spray Volume GPA | Rate lb a.s./A | Retreatment Interval | | Tank Wix Adjuvants |
| RV223- 11DA | , CA Region | BYI 02960 SL | TRTDD | 🎉 (dilute🔊 🖰 | BBCH | 24 9 (23 30) | 0.183 | NA NA | (0.4K) | NIS |
| | 10 2011 | 200 | | appl® O | "BBCDI - 834 - S | 250 (2330) ₈ | ©.183 < (0.206) |) 10 (5) | Tey (| NIS |
| RV223- 11DA | , CA Region | BYI 02960 SL | STRTDO | Últra | BBCA 78 | 3.6 | (C) 205) (C) | NA. | (0.365 ((0.410) | Citrus Oil + |
| | 10 2011 | 200 @ | . W | &Low & Volume | | | , % | | , , | NIS |
| | | | | | BBCH 83 | 3.0 (28) | % 183 @ |) 10 | | Citrus Oil + |
| | * | | | | BBCH | | J. 10.200 | | | NIS |
| RV223- 11DA | Pagior 0 | BYI 02960 ST | TRADS | Soil Soil | BB@H | NA V | 0.366 (0.410) | NA | 0.366 (0.410) | NIS |
| IIDA | Region 10 | 200 | | y drenkan | | | (0.410) | | (0.410) | |
| RV224- 11DA | , CA | BYI © | TRTDD | Axirblas (dilute | BBCH | 199 (9860) | 0.175 (0.196) | NA | 0.358 (0.401) | NIS |
| Ş | Region 10 @ | . % | | apol.) | | ₽, | (0.170) | | (0.101) | |
| | | | | | B CH 85 | 212 (1980) | 0.183 (0.205) | 8 | | NIS |
| RV224- 11DA | | BYIS | TRTDU. | Ultra | BBCH 83 | 3.0 (28) | 0.191 (0.214) | NA | 0.375 (0.420) | Citrus Oil + |
| TIDA & | Region 1007 | 02960SL 200 | | Ultra L'ow Volume | 63 | (28) | (0.214) | | (0.420) | NIS |
| | | | | , | BBCH 85 | 2.7 (26) | 0.184 (0.206) | 8 | | Citrus Oil + NIS |
| RV224-0 11DA | CA A Region to 2011 | 02969 SL 200 | TRTDS | Soil drench | BBCH 81 | NA | 0.904 (1.013) | NA | 0.904 (1.013) | NIS |
| Ĺ | 2011 | 7 | | | | | | | | |



Table 6.3.2.1-13 (cont'd): Study Use Pattern for BYI 02960 200 SL on Mandarin Orange

| 1 aut 0.5. | 2.1-13 (cont'd | i). Sii | | ttern for B | 1102900 | 200 SL (| on manda | illi Ola | ngc | ° & |
|----------------------|---|--|-----------|---------------------------------|-------------------|------------------------|----------------------------------|--------------------------|------------------|------------------------|
| | | (uc | Applicat | ion | | T | r | ı | | Ş |
| | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | | | əā | May Volume GPA | | T | | |
| cation | ty, Stat Year) | luct (Fe | | | Marth Stage | Volun | | Merval | | Juvant |
| dentifi | on (Cii | se Proc | ame | - () | « g/Grov [) | | a.s./A | tment | Eate II | Mix |
| Trial Identification | Location (City, Sta Region, and Year) | End-us | Plot Name | Meeting | Timing/Growth | Actual (Langa) | Rate lb a.s./A | Refresatment (days) 🖉 | Total Rate Ib | Tank Mix |
| RV224- 11DA | , CA | BYI 02960 SL | TRTDD | Airblasi (dikute appl.) | BBCH ©83 | (199 (1860) | 0.175 (0.196) | NA S | 0.358 | NIS |
| | Region 10 2011 | 200 | | | | | | | | |
| | | Ç | | | BBCH (85) | 212 (19 89) | 0.1 §3 (§ 205) | | | NIS |
| RV224- 11DA | , CA | BYI 02960 SL | TRTDU | Ultra Low Volume | BBCH 83 | Q3.0 (28)Q | 0.190 | NAX O | 0.375 (0.420) | Citrus Oil + |
| | Region 10 2011 | 029 60 SL (| | Volume " | | | | | | NIS |
| | | | | \$ \$ | BBCH ^C | 2.7 | 0; 184 (0.206) | 8 | | Citrus Oil + |
| DV224 | | | OTRTBS | | Spr City | | 0.904 | NA | 0.904 | NIS NIS |
| RV224- 11DA | ⊘, CA | B∳YI 02960 SIØ \$\times 200\$ | TRIBS | Soil | BBCH 81 | No. | (1.013) | NA | (1.013) | MIS |
| | *Region 10 2011 . @ | | | | |)" | | 2.7. | 0.05 | 1770 |
| RV225- 11DA | L, FL Region 3 | BYI @* 02960\$\$L 200 | TRĴ/DD | Airblase (dikoste .asol.) | BBCH ©89 | 259 (2420) | 0.184 (0.206) | NA | 0.367 (0.411) | NIS |
| | 2011 | | | | - | | | | | |
| | | BYI 0 0 2960 St. 2000 | | | BBCH 89 | 259 (2420) | 0.183 (0.205) | 10 | | NIS |
| RV225- 11DA | FL A | BY 02960 SL 2 | PRTDU | Ultra Low Volume | BBCH 89 | 2.7 (26) | 0.182 (0.204) | NA | 0.365 (0.409) | Citrus Oil + NIS |
| | FLA Region 3 | | | | BBCH 89 | 2.8 (26) | 0.183 (0.205) | 10 | | Citrus Oil + NIS |

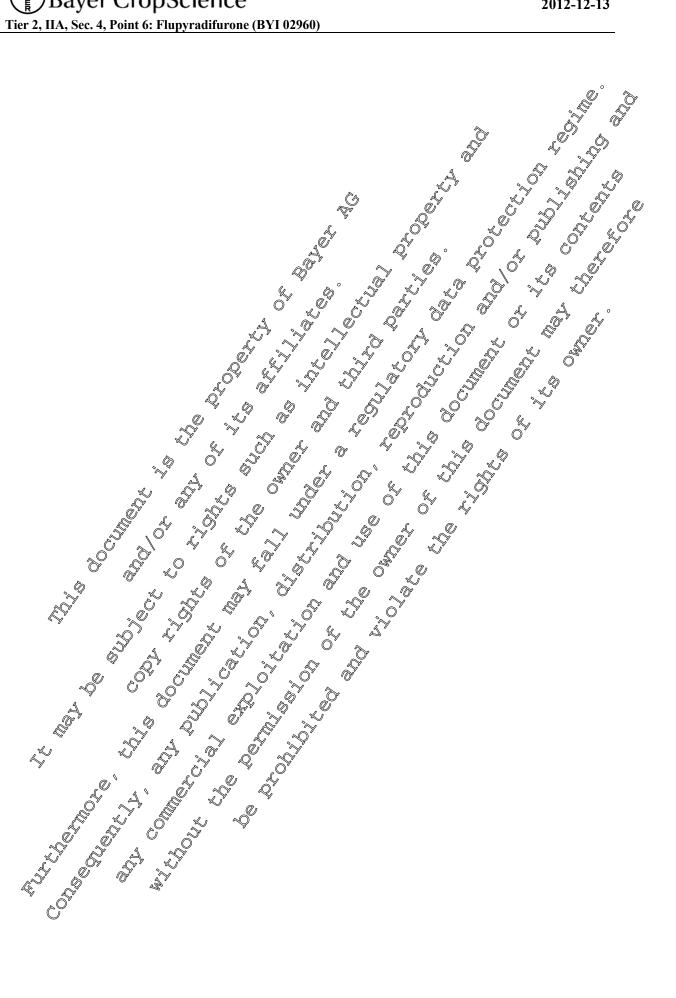


Table 6.3.2.1-13 (cont'd): Study Use Pattern for BYI 02960 200 SL on Mandarin Orange

| | | <u>.</u> | Applicat | ion | | | | | | 0 |
|----------------------|---|---------------------------------|-----------|-------------------------|--|--------------------------------------|---|----------------------|------------------------------------|-------------------------------|
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Wethod | Timing/Growth Stage (BBCH) | Actual Spray Volume GPA | Rate lb a.s./A | Retreatment Interval | Total Rate Apas./A Co., (kg & Lun) | Tank Wix Adjuvants |
| RV225- 11DA | , FL Region 3 2011 | BYI 02960 SL 200 | TRTDS | Soil drench | BBCffy 8.5 2 2 2 2 2 2 2 2 2 2 2 2 3 2 3 2 3 2 3 | | 0.366 | O O | (0.430) | NIS ° |
| RV226- 11DA | TX Region 6 2011 | BYI 02960 SL 200 | TRADD | Airblast (dilite appl.) | BBCH | \$51 \(\alpha\)2350\(\bar{\chi}\) | 70.190 (0.23) | | 0.380 (0.426) | NIS |
| | | | | | BBCH 83 | ©251 ©(23400) | 0.196 | % O | | NIS |
| RV226- 11DA | TX Region & 6 2011 | **BYI 02960*\$L 2000 | | Ultra Low Volume | BRCH 81 BRCH 83 | 2.5 (24) (22.6 (25) | 0.188 (0.2 0) (0.189 (0.211) | NA 8 | 0.376 (0.422) | Citrus Oil + NIS Citrus Oil + |
| RV226- 11DA | TX Region 6 2014 | BYC 02960SL 200 | SKIDS | Soily dreach | ************************************** | NA | 0.366 (0.410) | NA | 0.366 (0.410) | NIS |
| RV227- 11DA | Cas Region 10 2011 | D.″B Y \$₹` | FORTDD | Air Mast (drute Cappl.) | B BCH 79 | 249 (2330) | 0.183 (0.205) | NA | 0.366 (0.411) | NIS |
| \$ \$\frac{1}{2}\$ | | | | | BBCH 83 | 250 (2330) | 0.183 (0.205) | 10 | | NIS |
| RV227- 11DA | , CA Region 10 201 | B y y 02960 SL 200 | FRTDIO | Ultra Low Volume | BBCH 79 | 3.0 (28) | 0.183 (0.205) | NA | 0.366 (0.410) | Citrus Oil + NIS |
| | , CA Region 10 ⁴ | | | | BBCH 83 | 3.0 (28) | 0.183 (0.205) | 10 | | Citrus Oil + NIS |



Table 6.3.2.1-13 (cont'd): Study Use Pattern for BYI 02960 200 SL on Mandarin Orange

| | _ | (ii | Applicat | ion | | | | | a. | 0 |
|----------------------|---|-------------------------------|-----------|------------------|-------------------------------|--|--------------------|----------------------------|------------------------------------|------------------------|
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | lio | Timing/Growth Stage (BBCH) | Actual Spray Volume GPA | Rate lb a.s./A And | Retreatment Interval (dax) | Total Rate Apas. A Con (kg as Ana) | Tank Wing Adjuvants |
| RV227- | , | BYI | TRTDS | Soil | BBCH | NA | 0.366 (9.410) | NA » | ©0.366 | NIS |
| 11DA | CA Region 10 2011 | 02960 SL 200 | | drench | | 5 S | | | (0.440) | , o |
| RV228- 11DA | CA | BYI 02960 SL | TRTDD | Airblast (dilut@ | ² 8€ | 2 08 , (±940) _s | ©183 < | NΔ | 0.366 (0.411) | NIS |
| | , CA Region 10 2011 | 200 | | apply | BECH 85 | Ž13 Ž19900 | | | G Y | NIS |
| RV228- 11DA | , CA | %BYI 02960€¶L | TRĄDU | Ultrar | BBCH | ×3.0 (28) | ©0.189 (0.2123) | NA | 0.374 (0.419) | Citrus Oil + |
| IIDA | Region 10, 2011 | 265 | | Volume | ~ C | | | | (0.419) | NIS |
| | | | | | 85 | \ \@~\ | 0.184 (0.207) | 8 | | Citrus Oil + NIS |
| RV228 11DA | Region 0 | BB 02 60 SL 200 | \$RTDS \ | Sold divench | ®BCH (81,3√ |) NA | 0.904 (1.013) | NA | 0.904 (1.013) | NIS |

a NA = Not applicable

Composite samples of mandarin orange were collected from the plot receiving two airblast applications, at sampling intervals of 0, 1, 3, 0, 20 to 21, and for some trials 29 to 30 days after the second application. The intended pre-harvest interval (PHI) after foliar application is 1 day. Composite samples were collected from the plot receiving one soil drench application at a 28 to 30-day PHI. Single composite samples of mandarin oranges were collected from the control plots on the same day the target to day samples were collected from the treated plots.

Samples were also collected immediately before the second foliar application of BYI 02960 200 SL. Residue data from these samples are provided for information only, and should not be used for risk assessment, or for the setting of tolerance levels.

The residue(s) of BYI 02960, DFA, and DFEAF were quantitated by HPLC-MS/MS using stable isotopically labelled internal standards. The individual analyte residues were summed to give a total BYI 02960 residue. Residue measurements below the analyte LOQ were summed into the total BYI 02960 residue value as the analyte LOQ value.

Findings

Concurrent recoveries of BYI 02960, DFA, and DFEAFwere measured with each set of samples to verify method performance. verify method performance. All recoveries were corrected for any interferences in corresponding controls. The overall mean of the recoveries at each fortification level was within the acceptable range of 70 to 110%, and the standard deviation (SD) ya tues were below 20% (Table 6.3.20-14)

Table 6.3.2.1-14: Summary of Recoveries of BYJ \$2960 from Mandarin Oranges

| | | 102. | |
|----------------|---|---------------------------------|-----------------|
| Crop Matrix | | Mean % Recovery ^a | Stan. % Dev. |
| | BYI 02960 3 95, 88 97, 103, 98, 90 94, 105, 113 94, 105, 113 96, 99, 98 | 100% | 8.6% |
| | \$\frac{1}{2}\frac{1}\frac{1}{2}\f | 98% | 1.7% |
| Mandarin fruit | 93,94,94,04,95,76, 102,92,89,94,90,91, 106,106,178 | 96% | 9.8% |
| <u></u> | | 93% | 0.9% |
| | 9 84, 95 97, 87, 111, 90, 96, 90, 88, 106, 98, 87, 94, 111 | 95% | 8.4% |
| , Q | 1000 0 3 0 97, 97, 98 | 98% | 0.6% |

Mean Recovery = mathematical average of all recoveres.

The freezer storage stability study indicates that BYI 02960 residues were stable in orange fruits as representative crops of the respective compodity (high add content) during frozen storage for at least 18 months prior to analysis. The maximum storage period of frozen samples in this study for BYI 02960 was 199 days. A sommar of the storage conditions are shown in the Table 6.3.2.1-15.



Summary of Storage Conditions for Mandarin Oranges Table 6.3.2.1-15:

| Residue Component(s) | Matrix (RAC) | Average Storage Temperature (°C) ^a | Actual Storage Duration months (days) b,c |
|-------------------------|------------------|--|---|
| BYI 02960 | Mandarin oranges | -22.4 | 6.5 months (199 days) |
| DFEAF | Mandarin oranges | -22 A | 6.5 Coonths |
| DFA | Mandarin oranges | 2 2.4 | 6.5 months (199 days) |

lysis and is the din raw do The average storage temperature is from the time of sample receipt at BRD until the final sample analysis and is the maximum of all three freezers that the samples were stored in Actual temperature values can be found in Taw data notebook RARVP064.

The storage duration is the time from field sampling through the last sample extraction.

The total BYI 02960 residue data for citrus following a single soil drench, or two foliar application(s) of BYI 02960 200 SL are shown in Tables 6.3.2.16.16. The results from samples taken just prior to the final application are shown in Table 6.32.1-17. The samples collected after a single foliar application do not reflect the proposed use tate, and the residue data from these samples were collected for informational purposes only.

Total BYI 02960 Residue Data from Mandaris Oranges after a Single Soil Drench Table 6.3.2.1-16© Two Goliar Opplication(s) of BY 102960 SL

| ll Number | Location (City, State, NAFTA Region, and Year) | Plot Name Programme Progra | Murchtts (A) | | Total Rate Ib a.S./A | PHI (Preharvest ^A Z ² Interval) | BYI 02960 Residue (mg/kg) | DFA Residue (mg a.s. equiv./kg) | DFEAFResidue (mg a.s. equiv./kg) | Total BYI 02960 Residue (mg a.s. equiv./kg) ^b |
|---------------|--|--|--------------|---------------|----------------------|--|------------------------------|------------------------------------|-------------------------------------|--|
| RV221- | Region 3, 2911 | TRTDD | W Murchts | Fîrnt | 0.364 (0.408) | 0 | 0.144 | < 0.050 | < 0.010 | 0.204 |
| | | | | <i>)</i> ' | | 1 | 0.160 | < 0.050 | < 0.010 | 0.220 |
| | | | | | | 3 | 0.053 | < 0.050 | < 0.010 | 0.113 |
| | | | , 🍣 | | | 10 | 0.070 | < 0.050 | < 0.010 | 0.130 |
| | | | | | | 21 | 0.071 | 0.054 | < 0.010 | 0.135 |
| X | | Ş | | | | | | | | < 0.070 |
| | | | | | | 30 | < 0.010 | < 0.050 | < 0.010 | < 0.070 |
| <i>*</i> \$. | | P | | | | | < 0.010 | < 0.050 | < 0.010 | Avg: |
| |) T | | | | | | | | | < 0.070 |

^{2012.} Storage stability of BVI 02960 diffusionacetic acid, and and A. difluoroethyl-amino-furanone in plant matrices. Bayer Crop Science Report No Whended Version Including 18-month data (KIIA 6.1.1/01).



Table 6.3.2.1-16 (cont'd): Total BYI 02960 Residue Data from Mandarin Oranges after a Single Soil Drench or Two Foliar Application(s) of BYI 02960 SL

| | | Diene | n or 1 wo Fo | nai 7 tpp | incation(, | 3) 01 1 | 711 0270 | OBL | | |
|---------------|--|-------------------|---------------------------|-----------|---|----------------------------|-------------------------------|--|------------------------------------|---|
| Trial Number | Location (City, State, NAFTA Region, and Year) | Plot Name | Crop Variety | Commodity | Total Rate Lb a.s./A (kg ai/ha) | PHI (Preharvest a Øterval) | BYI (1990) Residue (mg/kg) | DFA Residue (12) (Mga.s. equiv./kg) | DFEAFResidue (mg & cquiv: Rg) | Total BYI 02960 Residue |
| RV221- | , FL, | TRTDU | W. Murcotts | Facant | 0.365 | | .0925 | <0.050 | Q _{0.01} | 0.08 |
| 11DA | Region 3, 2011 | | | Y | 30.410)* *********************************** | 7 | | | °~ | * U' |
| | | | 4 | | 0.365 | 10 | 0.02 | <0/050 | ≰ 0.010 <i>a</i> | \$0.085 ************************************ |
| | | | | | | - A | ≤0.010 | \$0.050 | <0.010 | 4/ 3/ |
| | | | | | v .4 | | \$0.01 <i>5</i> | <0.050 | <0.010 | 0.075 |
| | | | | | | 21 | 0.007 | <0.050 | Ø.010 | 0.077 |
| RV221- | , FL, | TRTDS | W Murcotts | Frunt | 0.364 0 .408) | 3 70 | 30.010 | 0.050 | <0.0 1 0 <0.0 1 0 | <0.070 <0.070 |
| 11DA | Region 3, 2011 | (D) | | | (W).408 E | | \$ 0.010C | <0.050 | <0.0¥0 | Avg: |
| | | Z | | -0 | \$ | | , Ø | O* | 0 | < 0.070 |
| RV222- | , FL, | TRTDD | Sunburst | Four it | 09363 | ő | ©.289 V | ×0.050 | < 0.010 | 0.349 |
| 11DA | Region 3, 2011 | Υ _Α ." | | | (40.40 ₀) | 8 | | | | |
| | XX | | | | (0.406) | ď | 06253 | ≤0 .050 | < 0.010 | 0.413 |
| | Ũ | 2 | | J. | ~ \ | あ コ | P.240 | ₹ 0.050 | < 0.010 | 0.300 |
| | | | | y % | | 10 | √ 0.234° | < 0.050 | < 0.010 | 0.294 |
| | | | | | | Z V | 0.197 | 0.069 | < 0.010 | 0.276 |
| | | | 2 | | Ğ | \bigcirc_{30} | % .012 | < 0.050 | < 0.010 | 0.072 |
| | | | | | * .5 | | <0.010 | < 0.050 | < 0.010 | <0.070 |
| <i>\&</i> | | | | | ₩ | | | | | Avg: 0.071 |
| RV222- | FL. | TRTDU | l ^y Siinbigrst | Fruit | ŌŐ 35ℤ | 0 | 0.056 | < 0.050 | < 0.010 | 0.116 |
| 11DA | Region 3, 2011 | | | j" "Ç | (0.400) | | | | | |
| | | | Sunborst | | <i>"0</i> " | 1 | 0.056 | < 0.050 | < 0.010 | 0.116 |
| | 4 | | Y Q'. | | | 3 | 0.044 | < 0.050 | < 0.010 | 0.104 |
| | | Q, | o i | | | 10 | 0.052 | < 0.050 | < 0.010 | 0.112 |
| 4 | | | | | | 21 | 0.053 | < 0.050 | < 0.010 | 0.113 |
| RV222- | , FL, | RTDS | Sunberst | Fruit | 0.365 | 30 | 0.012 | < 0.050 | < 0.010 | 0.072 |
| 11DA | Region 3, 2011 | a Y | | | (0.409) | | < 0.010 | < 0.050 | < 0.010 | <0.070 |
| | | | | | | | | | | Avg: 0.071 |
| | | |) •© | | | 1 | I | Continu | ad an ma | |
| | , FL, Region 3, 2011 | | | | | | | Сопппи | ed on ne. | хı page |



Table 6.3.2.1-16 (cont'd): Total BYI 02960 Residue Data from Mandarin Oranges after a Single Soil Drench or Two Foliar Application(s) of BYI 02960 SL

| 1 | | T | 1 | | incution(| | 1 | 1 | 1 | (7) | 2 1 |
|----------------|--|------------|--------------|-----------|-------------------------------------|---|------------------------------|---|------------------------------------|---|--------|
| Trial Number | Location (City, State, NAFTA Region, and Year) | Plot Name | Crop Variety | Commodity | Total Rate Lb a.s.A (kg a.s./ha) | PHI (Preharvest ^a _{%Interval}) | BV02960 Residue (mg/kg) & | DFA Residue Roge Rag a.s. equiv./kg) | DFEAFResidue (mga.s. equiv./kg) | Total Brenzoso Recidue (mg as. equivakg) | |
| RV223- 11DA | , CA, | TRTDD | Satsuma | Fruit | 0.366 (0.411) | 02 | 0.129 | <8.050 | \$0.010 | ©.189. | 7 |
| IIDA | Region 10, 2011 | | | U) | (0.411) | 0 1 | √0.10 <u>8</u> € | <0.030 | 0° & 60° (0°) | 0°.¥68 | |
| | | | (| | | 30 | 0.108 | <0.050 | \$0.010 | 9.164 | |
| | | | | | | 10 | <u>A</u> 156 | ©0.050 | <0.010 | 0.2 | 2 |
| | | | | | , 4 | 21 @ | 0.132 | <0.069 | <0.010 | 9 2 | |
| RV223- | , CA, | TRTDU | Sarsuma V | Fruit | 0.363 | | 0.065 | ₹ 050 | Ø.010 | 0.125 | |
| 11DA | Region 10, 2011 | | | D Y | (A) | | | O .~ | ¥ | | |
| | | ~@ | , V | | |) 1 269 | 0.165 | <0.056 <0.050 | <0.010 | 0.225 | |
| | | | | 4 | & | 70 | 0.502 0197 % | ©0.050 ©0.050 | <0.010 | 0.222 | |
| | | | | | | § 21 § | 0.210 | <0.050 | <0.010 | 0.270 | |
| RV223- | , CA,≪ | TRTOS | Sasuma Ĉ | Fruit | 0.366 | 36/ | <0.010 | <0.0050 | < 0.010 | < 0.070 | |
| 11DA | Region 10, 2011 | | | Ĵ | (6410) | 7) | ₹0. 010 | √ \$0.050 | < 0.010 | <0.070 Avg: | |
| | | | | y % | | , W | | | | < 0.070 | |
| RV224- | | TRTDD | Tango | Frank | 0358 (0.401) | | 0.268 .@ | < 0.050 | < 0.010 | 0.328 | |
| 11DA | CA, Region 0, | | | | 0,401) | | h- | | | | |
| | | | | | | | 0.328 | < 0.050 | < 0.010 | 0.388 | |
| « | | | | | | \$3 | 0.277 | < 0.050 | < 0.010 | 0.337 | |
| | | | | | 9 | 10 | 0.361 | < 0.050 | < 0.010 | 0.421 | |
| | W S | | | | Ö | 21 | 0.175 | < 0.050 | < 0.010 | 0.235 | |
| RV224- 11DA | CA Region 10 | IY RAIDO | Tango | Fruit | ©9.375 (0.420) | 0 | 0.287 | < 0.050 | <0.010 | 0.347 | |
| | CA Region 10, 2011 | Q, | | | (0.120) | 1 | 0.398 | < 0.050 | < 0.010 | 0.458 | |
| | | 4 . | | | | 3 | 0.546 | < 0.050 | < 0.010 | 0.606 | İ |
| | | | | 5 | | 10 | 0.357 | < 0.050 | < 0.010 | 0.417 | |
| | Q J | Ž. | | | | 21 | 0.249 | < 0.050 | < 0.010 | 0.309 | |
| RV224- | , , , , , , , , , , , , , , , , , , , | ŢŔŤDS | Tango | Fruit | 0.904 | 29 | <0.010 | <0.050 | <0.010 | <0.070 | |
| 11DA | CANA, Keggovň 10, ∂ 2000 l | | y | | (1.013) | | <0.010 | < 0.050 | < 0.010 | <0.070 Avg: | |
| , X | | | | | | | | | | < 0.070 | |
| | CA, Region 10, | | | | | | | Continu | ed on ne. | xt page | |



Table 6.3.2.1-16 (cont'd): Total BYI 02960 Residue Data from Mandarin Oranges after a Single Soil Drench or Two Foliar Application(s) of BYI 02960 SL

| | | | II OI TWO I O | | | | | | | | 2 |
|----------------|--|-----------|---------------|--------------------|-------------------------------------|---|--|---------------------------------------|------------------------------------|--|---|
| Trial Number | Location (City, State, NAFTA Region, and Year) | Plot Name | Crop Variety | Commodity | Total Rate Lb a.s.A (kg a.s./ha) | PHI (Preharvest ^a <u>I</u> nterval) | BV 02960 Residue (mg/kg) Z | DFA Residue Ran Jangas. equiv./kg) | DFEAFRegidue (mgg.s. equiv./kg) | Ootal Brouggo Reconne (mg as. equivagg) | |
| RV225- | , FL, | TRTDD | Sunburst | Fruit | 0.367 | 0~ | 0.232 | < 9.050 | \$9.010 | ©.272 | |
| 11DA | Region 3, 2011 | | | | (0.411) | 0 | ************************************** | | 0′ & | | |
| | | | (| | | 7 1 | <0.15 k√ 0.18 € | <0.050 <0.050 | <0.010 \$9.010 | 0.193 € | |
| | | | | ~~ | Q . | 30° | 0.1 ₀ 3 | <0.950 \$0.050 | <0.010 | 0.193 | ľ |
| | | | | | | №10 | 0.069 | <0.0690 | <0.010 | 0.129 | |
| RV225- | , FL, | TRTDU | Sanbursk | Fruit | 0.363 | A P | 0.590 | 40.050 | ©0.010 | 0.570 | |
| 11DA | Region 3, 2011 | | | Fruit | 0. 363 (0.409) | | | | | ,, | |
| | | (P) | | | | 1 / | 0.36% | 0.06 | | 0.446 | |
| | | Ş | | | | | 0.512 | <0.050 | © 0.010 | 0.572 | |
| | | | | | <i>~</i> | 10 | 0 ,492 % | \$0.05 0 | < 0.010 | 0.552 | |
| | | 7 | Q | | | 21 | 0.375 | <0.050 | < 0.010 | 0.435 | |
| RV225- 11DA | Region 3, 2001 | TRTOS | Synburst | Fruit | 0.366 (\$.410) | 8 | < 0.010 | ≈0.0 50 | < 0.010 | < 0.070 | |
| IIDA | Region 3, 2001 | 4 . | | \\ \tag{\pi} \\ \& | | | | ₹ 0.050 | <0.010 | <0.070 Avg: | |
| | | | | | | Ű | | | | < 0.070 | |
| RV226- | Region 6, 2011 | TRODD | Dancy | Fant | 0380 39.426) | | 9 ,233 | < 0.050 | < 0.010 | 0.293 | |
| 11DA | Region 6, 2011 | TRYDU | Dancy | | A 9.426) | | ¥ | | | | |
| | | | | Frequit | | | 0.236 | < 0.050 | 0.047 | 0.333 | |
| | | | | | | <u> </u> | 0.329 | < 0.050 | 0.045 | 0.424 | |
| | | | | <i>~</i> | o' 🎘 | 10 | 0.177 | 0.053 | <0.010 | 0.240 | |
| DIVIDA | | | | - O | 0, 2 | 21 | 0.148 | 0.063 | <0.010 | 0.221 | |
| RV226- 11DA | Pagion 6 2011 | | | Fryant | 0.376 (0.422) | 0 | 0.858 | < 0.050 | <0.010 | 0.918 | |
| | Region 6, 2011 | TRETOS | Dancy | | (| 1 | 0.486 | < 0.050 | < 0.010 | 0.546 | |
| , | | 4 | | | | 3 | 0.228 | < 0.050 | < 0.010 | 0.288 | I |
| | 4 | | | | | 10 | 0.898 | 0.094 | <0.010 | 1.002 | |
| | (O) | | | | | 21 | 0.414 | 0.092 | <0.010 | 0.516 ^g | |
| RV226- | ,,,,,, | TETDS | Dancy | Fruit | 0.366 | 29 | < 0.010 | < 0.050 | < 0.010 | < 0.070 | |
| 11DA | Region 6, 2011 | | | | (0.410) | | < 0.010 | < 0.050 | < 0.010 | < 0.070 | |
| | Region 6:2011 | | | | | | | | | Avg: | |
| | | | | | | | | | | < 0.070 | İ |



Table 6.3.2.1-16 (cont'd): Total BYI 02960 Residue Data from Mandarin Oranges after a Single Soil Drench or Two Foliar Application(s) of BYI 02960 SL

| | | | | 11 | | | | | | 0 |
|----------------|--|---------------------------------------|------------------|--|-------------------------------------|--|--|---|-------------------------------------|---|
| Trial Number | Location (City, State, NAFTA Region, and Year) | Plot Name | Crop Variety | Commodity | Total Rate Lb a.s.A (kg a.s./ha) | PHI (Preharvest ^a _{%_Interval}) | BV02960 Residue (mg/kg) & | DFA Residue Range Range Range A.S. equiv./kg) | DFEAFRegidue (mg.n.s. equiv./kg) | Cotal BY D2960 Recidue (mg 28. equit 18g) b |
| RV227- | , CA, | TRTDD | Satsuma | Fruit | 0.366 | 0% | 0.252 | <0.050 | \$0.010 | 6.312 |
| 11DA | Region 10, 2011 | | | Q) | (0.411) | | \ <u>\</u> | | | |
| | | | , | 4 | ©0.366 ~ | 1 | الـ0.142 الــــــــــــــــــــــــــــــــــــ | <0.050 | <0.0010 | 0.202 |
| | | | 4 | | \$0.366 \$\(\dagge(0.41)\) | | / 500 m | 0 | Q 01d | * 246° |
| | | | | | | ~ | 0.280 | 0.050 | Q _{0.01} | 0.346 |
| | | | | | v . 4 | ² 10 | 0.177 | <0.050 | <0.010 | 0.237 |
| | | | | | 0.366 | 21 | 0.249 | <0.050 | 6 .010 | 8 .309 |
| RV227- 11DA | , CA, | TRTDU | Satsum | Fruit | 0.366 | S | 9 3748 | Ö.050 | ≥0.010 ≥ | 0.208 |
| IIDA | Region 10, 2011 | <i>@1</i> | | | 769.410) 769.410) | | Y . 1.50 | <00050 | | 0.010 |
| | | ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ | | 0 | | 120 | 0.152 | | % 010 | 0.212 |
| | | | | W. | ~ | | N 77 * | ©0.050 | <0.010 | 0.249 |
| | | | | | | \ 10 | J0.27∤Ç | <0.050 | < 0.010 | 0.331 |
| | <u> </u> | | à 0 | | | | 0,393 | <00050 | < 0.010 | 0.453 |
| RV227- | , C | TRPDS | Satsung | Facilit | \$366 60.410) | 30 | © .010 | \$ 0.050 | < 0.010 | < 0.070 |
| 11DA | Region 10,0011 | | | Y % | 0.410) \$ | | <0.010 | < 0.050 | < 0.010 | <0.070 Avg: |
| | Region 10,0011 | ~~ | | | ^ | Ţ, | Ø, | | | <0.070 |
| RV228- | | T**TDD | > Owari | Fruit | 9.366 (0.4119) | \circ_0 | Ø.192 | < 0.050 | < 0.010 | 0.252 |
| 11DA | CA, Region 10, | | × ~ ` |) " | (0.4119/ | | 7 | | | |
| | 2011 | , Š | | | | , P | 0.186 | < 0.050 | < 0.010 | 0.246 |
| | | 4 | | | | ₫"3 | 0.159 | < 0.050 | < 0.010 | 0.219 |
| | CA, Region 10, 2011 | | | 0 | ·~ | 10 | 0.144 | < 0.050 | < 0.010 | 0.204 |
| | <i>∅₁</i> .0 [¥] | | | | Ť | 21 | 0.124 | < 0.050 | < 0.010 | 0.184 |
| RV228- 11DA | Region 10 | FR TDI | Owari Sarsuma | P ruit | (0.419) | 0 | 0.331 | < 0.050 | < 0.010 | 0.391 |
|] . | 2011 | , Q | | | | 1 | 0.091 | < 0.050 | < 0.010 | 0.151 |
| | Z, | 4 | | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ | | 3 | 0.610 | < 0.050 | < 0.010 | 0.670 |
| ~~ | . • | کی کی | | D _A . | | 10 | 0.080 | < 0.050 | < 0.010 | 0.140 |
| | | Ž. | | | | 21 | 0.035 | < 0.050 | < 0.010 | 0.095 |
| RV228- | | TR TDS | Oward | Fruit | 0.904 | 29 | < 0.010 | < 0.050 | < 0.010 | < 0.070 |
| 11DA | CM, Region 10, | | Satsuma | | (1.013) | | < 0.010 | < 0.050 | < 0.010 | < 0.070 |
| | 2041 | | | | | | | | | Avg: |
| | | , W . | | | | | | | | < 0.070 |

a Pre-Harrest Interval (PHI) is the interval between last application and Sample Date.

Total BYI 02960 residue is the sum of BYI 02960, DFA, and DFEAF residue in parent equivalents. Residue measurements below the analyte LOQ were summed into the total BYI 02960 residue value as the analyte LOQ value. These totals represent the upper limit of what the residue levels might be.

Maximum residue values for the different application scenarios and crops are printed in **bold.**

Table 6.3.2.1-17: Total BYI 02960 Residue Data from Mandarin Oranges taken immediately priorto the second foliar application of BYI 02960

| Trial Number | Location (City, State, NAFTA Region, and Year) | Plot Name | Crop Variety | Commodity | Total Rates Lb a.s./A (kg a.s./ha) | Days Before Application | KRVI 02960 Residue (mg/kg) | DD Residue (A) | DFEAFResidne | Total BY 0.2960 Residue |
|----------------------------|--|------------|--------------|-----------|-------------------------------------|-------------------------|-------------------------------|-----------------|-------------------|-------------------------|
| RV221- 11DA | , FL, Region 3, 2011 | TRTDD | W. Murcotts | Fruit | \$\display 0.364\$\display (0.46\$) | | 0.1195 | CO.059 | <0.010 0 | Ø.4.79 ↑ |
| RV221- 11DA | , FL, Region 3, 2011 | TRTDU | W. Mutcotts | Fruit | 0.365 (0.410) | | | ₹0.0 50 | | 0,071 0,071 |
| RV222- 11DA | , FL, Region 3, 2011 | TRTDD | | | 0.363 0.4060 | | ©.129 ©. | \$0.05 0 | (%) (%) (%) | 0.189 |
| RV222- 11DA | , FL, Region 3, 2011 ₈ | TŘÝDU | Q N | Fayit | 0.357 (0.400) | %0 √ . «. | 0,048. ₁ | ©0.050 | <0.010 | 0.108 |
| RV223- 11DA | Region 10 2011 | TRÆDD | Satsuma | France | 0.366 (0.411) | | Ø\$\$\02 , | \$9 .050 | <0.010 | 0.162 |
| RV223- 11DA | Region 10, 2011 | TRTĎU | Satsuma 4 | Friedly | 0.365 (00410) | | 0.445 © | <0.050 | <0.010 | 0.205 |
| RV224- 11DA | CA, Region 6, | TRIDD | Ango S | Fruit | 0.3 5 8 (0.401) | | 0.106 | <0.050 | <0.010 | 0.166 |
| RV224- 11DA | CA, Region 100 | TRTD | Tkango (| Fruit | 0.375 | 0 | 0.460 | <0.050 | <0.010 | 0.520 |
| RV225- 11DA | ©FL, Region 3© 2011 | TRTEO | Sudbarst | Fruit | 0.367 (0.411) | 0 | 0.131 | <0.050 | <0.010 | 0.191 |
| RV225- 11DA | Region 3, 2011 | TRATOL O | Sunburst | Fruit | 0.365 (0.409) | 0 | 0.471 | <0.050 | <0.010 | 0.531 |
| RV226- 11DA | , TX, Region & 2011 | TOTOD S | Dancy | Fruit | 0.380 (0.426) | 0 | 0.178 | <0.050 | <0.010 | 0.238 |
| RV226 ² 11DA | TX, Region 602011 | TRÍDU Ý | Dancy | Fruit | 0.376 (0.422) | 0 | 0.484 | <0.050 | <0.010 | 0.544 ^{c,d} |
| RV227 11DA | , CA, Region 10, 2011 | TRTDD | Satsuma | Fruit | 0.366 (0.411) | 0 | 0.176 | <0.050 | <0.010 | 0.236 |



Continued on next page...

Table 6.3.2.1-17 (cont'd): Total BYI 02960 Residue Data from Mandarin Oranges taken immediately prior to the second foliar application of BYI 02960

| Trial Number | Location (City, State, NAFTA Region, and Year) | Plot Name | Crop Variety | Commodity | Total Rate Lb a.s./A (kg a.s./ha) | Bays Before Application a | BYI 62/60 Resic (mg/kg) | DFA Residue | DFEAFResidue (mg des equivakg) | Total BY1 02 Wan Residue | |
|----------------|--|-----------|----------------------|-----------|--------------------------------------|---------------------------|-------------------------|----------------|-----------------------------------|--------------------------|--|
| RV227- 11DA | , CA, Region 10, 2011 | TRTDU | Satsuma |) , ((| 0.366 | ~ 0 0 2 | , 004 04 | 20 .050 | 0.016 | 0.464 | |
| RV228- 11DA | CA, Region 10, 2011 | TRTDD | Owari Satsukwa | Front | 0.266 (0.411) | | 0.084 | Q.050 Q | 30.0100 2 | 0.144 | |
| RV228- 11DA | CA, Region 10, 2011 | TRTDU | Swari () Satsuma | Fruit | 0.3Q4 (0.419) | | 0.064 | 10 (// | 3 0.010 | 0.124 | |

- a Samples were collected immediately prior to the second foliar application and do not reflect the proposed use rate.

 Therefore, the residue data from these samples were collected for informational proposes only, are provided for information only, and should not be used for jobs assessment, or for the setting of tolerance levels.
- b Total BYI 02960 residue is the sum of BYI 02960 BYA, and DFEAF residue in parent equivalents. Residue measurements below the analyte EOQ were summed into the total BYI 02060 residue value as the analyte LOQ value. These totals represent the upper limit of what the residue levels might be
- c Maximum residue bund in mandarin orange at IBAQ (immediately before application 29)
- d Highest average Feld trial HAFT residue found in mandatin orange at IBA

Conclusion

Eight field trials were conducted to measure the magnitude of total BYI 02960 residue in/on mandarin oranges following either two speay applications of BYI 02960 200 SL (diluted or concentrated spray) or one soil drench approvation of BYI 02960 200 SD. Allorials with foliar spray application were designed as decline trials

The total BYI 02960 residue data for mandarin oranges following a soil drench or foliar application(s) are summarized in Table 63.2.1.18.

Table 6.3.2.1-18:. Summary of Residue Data for Total BYI 02960 from Mandarin Oranges

| | | | | | | Total BY | I 02960 I | Residue L | evels (p | om) ¹ |
|---------------------|------------------------|--|------------|---------|---------------|---|-------------------------------------|-----------|---------------|------------------|
| Commodity | Plot Name ² | Total Appli- cation Rate lb a.s./A (kg a.s./ha) | PHI (days) | u | Min at PHI | Max at PHI | Max after PHI | HAF | Median 4 | Mean And |
| Mandarin oranges | TRTDD | 0.358 to 0.380 (0.406 to 0.426) | 1 | 8 | 0.118 | | 0.424 | 0.3630 | °. O. | |
| Mandarin oranges | TRTDU | 0.357 to 0.376 (0.400 to 0.422) | 1 | 8 | 0 ,035 | 0.496 | 1.002 (1 ©) ⁵ | 0.4955 | 0:1685 O Q | ©2350 ©.1829 |
| Mandarin oranges | TRTDS | 0.364 to 0.366 (0.408 to 0.410) & 0.904 (1.013)* | | % 58 | <0.070 % | \$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | | 0.05 | <0.070 | §0.070 0.0004 |

- Plot TRTDS for trials RV224 and RV228 had soil drength applications made at higher rates.

* Plot TRTDS for trials RV224 and RV228 had soil drench applications made at higher rate.

1 Data from the decline trial samples collected at intervals other than the 1 or 30 day PHL are not included in this table.

2 TRTDD = Treated plot receiving two air low volume applications;
TRTDU = Treated plot receiving two air low volume applications;
TRTDS = Treated plot receiving one soil drench application.

3 HAFT = Highest Average Field Trial.

4 calculated on the basis of the residue values at the PHI
5 sampling day after PHI which showe the highest residue
6 no decline samples were collected

Spray application uses were clearly more critical in respect to possible residues in mandarin oranges compared to the soil drench use. Samples collected from decline trials after spray application indicates. compared to the soil drench use. Samples collected from decline trials after spray application indicated that the total BYI 02060 residue in edible mandarm oranges declined witially with a subsequence increase in total residue with either a leveling of a continued increase in total BYI 02960 residue until approx to days after the last application. The highest residue yaue detected in all trials was in a sample collected 10 days after the last application. Only one trial showed the highest residue value at the last sampling Vent (21 days after the last application), wall other trials the peak residue was detected prior to that. Therefore it can be assumed that the peak data provided in this report are solutions of regulatory purposes. detected prior to that. Therefore it can be assumed that the peak maximum is reached and the residue

An additional study was conducted to compare residues from citrus trials following the use patterns for BYI 02960 200 SL from Brazil and North America.

| Damant | KIIA 6.3.2.1/03; 2012 | 1 |
|-------------|--|----|
| Report: | () | |
| Title: | BYI 02960 200 SL - Magnitude of the Residue in/on Citrus (including Bridging Thals to | ٥ |
| | Brazil Import Tolerance). | " |
| Report No & | RARVP076, dated June 15, 2012 M-432687-01-1 | ٦, |
| Document No | M-432687-01-1 | Ä, |
| Guidelines: | US: EPA Residue Chemistry Test Guide trees OPPTS 86 (1500, Crop Field Tries) Canada: PMRA DACO 7.4.1. Supervised Residue Tries Study | 7 |
| | [| Q. |
| | PMRA DACO 7.4.2, Residue Decline | Q. |
| | OECD: Guidelines for the Testing of Chemicals, 509, Crop Field Frial, | Ş |
| | adopted Sept. 7, 2009. | |
| GLP | Yes | |

Four field trials were conducted to measure the magnitude of BY 02960 residues in/on orange following either one soil drench application followed by two broadcast foliar spra@applications of BYI 02960 200 SL (simulating the potential use pattern for Brazil), or two foliar broadcast foliar spray applications of BYI 0296 200 SL (Simulating the worst-case use pattern from North America) (Table 6.3.2.1-19).

Target Use Patterns for the Application of BYI 02960 on Table 6.3.2.1-19: (comparative trials)

| | | | | Targe | Kate/Appli | cation | | O | KŽ. | | | ray ume |
|-------------------------|--------------------|-----------------|----------------|--|------------|---------------|---------------|-------------------|-----|-----------|-----|------------------|
| | Test | | ©Form Produ | in ated to the state of the sta | Active St | stance | (a.s.) | Target App. | | Adjuvan | | |
| Plot ID ¹ | Test Substance | No of Apps | «∭ ∡mL/A. | √fi‱Z/A≥ | Name of | lk© a.\$#A | k@ a-s./ha | Interval Days) | | t/Additiv | GPA | LPHA |
| UTC | ÇNA 3 | NA _O | NA | NAS | NA (| SNA 🔏 | | NA | NA | NA | NA | NA |
| TRTSF | BYI 02960, | Soil | 36 /87 | (C)" 4 | PYI 02960 | 1339 | (1) (1) | 90 | 106 | 0.25 | NA | 500 ⁴ |
| IKISF | 200 SL | 2.Q foliar | 414.8 | ^ Y | y/ _ ^ // | 0.1829 | 0.205 | 15 | 10 | 0.25 | 200 | 1877 |
| TRTDF | BYL02960 200 SL | 2 foliar | 414.8 | 94.03 | BYI 02960 | Q.J.829 | 0.205 | 30 | 10 | 0.25 | 200 | 1877 |

UTC = Untreated control plot TRTSF Treated plot receiving one soil drench application followed by two foliar applications; TRTDF = Tresped plot receiving two foliar applications. Samples were to be collected at target PHIs of 0, 31, 10, 21, and 28 days.

field trials are shown in Table 6.3.2.1-20.

Soil drench applications were to be made at approximately 500 mL spray solution per plant.

Table 6.3.2.1-20: Trial Numbers and Geographical Locations for BYI 02960 on Orange (comparative trials)

| NAFTA Growing Region | Submitted |
|----------------------|-----------|
| 10 | 4 |
| Total | 4 |

Material and Methods

For plots receiving a single soil drench application followed by two foliar applications, soil drench application rates ranged from 0.921 to 1.339 lb BYL 02960/A (1.09 to 1.501 kg/BYI 02960/ha); foliate application rates ranged from 0.178 to 0.184 lb B\(0.2960/A/application (0.199 to 0.206 kg BYI 02960/ha/application) and total seasonal application rates ranged from 2.281 1.706/lb BYI 02960/A (1.438 to 1.912 kg BYI 02960/ha). Soil dreguen applications were made 90-91 days before the first foliar application.

For plots receiving two foliar applications, individual application rates ranged from 0, 29 to 0.184 lb BYI 02960/A/application (0.200 to 0.207 kg BYI 02960/ha/application) and total seasonal application rates ranged from 0.362 to 0.369 lb BYL 02960 A (0.496 to 9.413 kg/BYI 02960/lba).

The interval between the foliar applications was to 13 days. Soil drench applications were made at growth stages ranging from BBCH 73 to 79 (BBCH 39: some fruits slightly yellow, beginning of physiological fruit drop, BBCN 79: Fruits about 90% of final size). Foliar applications were made at growth stages ranging from BBC 181 to 9 (BBCH 81) Beginning of fruit colouring; BBCH 89: Fruit ripe for consumption).

All applications were made using ground-based equipment. An adjuvant (non-ionic surfactant [for the plot receiving two foliar applications or methylated seed oil for the plot receiving one soil drench Trial Site conditions, including soil characteristics are summarized in Table 6.3.2.1-21. Study use patterns are summarized in Table 6.3.2.1-20.

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Table 6.3.2.1-21: Trial Site Conditions for BYI 02960 on Oranges (comparative trials)

| | | Soil (| Charact | teristics | a | Meteorolo | ogical Datab |
|-------------------------|---|------------|-----------|--------------|---------------------------|---------------------------|--------------|
| Trial Identification | Trial Location (City, Country/State, Year) | Туре | OM (%) | pН | CEC (meq/100g soil) | Total Rainfall (in) | Temp Range |
| RV239-11DA | , CA, 2011 | Loam | 1.5 | 8.1 | 17 | 10.20 | 32 82 |
| RV240-11DB | , CA, 2011 | Sandy Loam | 0.95 (| ∌ 7.1 | 104 | 3.92 | 79 - 935 |
| RV241-11DA | CA, 2011 | Clay Loam | 2G | 8.2 | 3 33 | 279 Q | 5 5 5 77 J |
| RV242-11DA | , CA, 2011 | Sandy Loam | 0.82 | 7.6 | 1.032 | 5.39 | 29 - 86 |

- a Abbreviations used: %OM = percent organic matter CEC = caron exchange capacity
 b Data is for the interval of the month of first application through the month of first appli

| | | L. L. | | | (() | Applicati | on | 8 | & | |
|----------------------|--|------------------------------|----------|--|------------------------------|---------------|---------------------------------------|--------------------------------|-----------------------------------|-------------------------------|
| Trial Identification | Location City, State, NAFTA Region, and Vent | And-use Product (Fermulation | t Nitime | | Timing/Growth Stage & ARBCH) | me GPA | Rate lb afs./A Off (1/2) (kg a.s./ha) | Retreatment Inter D. C. (days) | Total Rate lb a.s./A (kg a.s./ha) | Tank Mix Adjuvants |
| RV239 | ,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,, | S YI | TRTSF | SØil ************************************ | *3 | NQa S | 1.34 | NA | 1.71 | MSO, |
| 11DA | Region 16 2012 | © YI © 2960 St. 200 | | Drench | 1 | 201 (1875) | (1.50) 0.183 (0.205) | 90 | (1.91) | 0.25% v/v MSO, 0.25% |
| | | | | Airblast | 85 | 201 (1876) | 0.183 (0.205) | 18 | | v/v MSO, 0.25% v/v |
| RV239- 11DA | Region 0 2019 | BYI 02969'SL 200 | TROTDF | Airblast | 81 | 200 (1872) | 0.182 (0.204) | NA | 0.365 (0.409) | NIS, 0.25% v/v |
| | | Y | | Airblast | 85 | 200 (1874) | 0.183 (0.205) | 13 | | NIS, 0.25% v/v |



Table 6.3.2.1-22 (cont'd): Study Use Pattern for BYI 02960 200 SL on Oranges (comparative trials)

| | .1-22 (cont u). | <u> </u> | T attern to | | | Applicati | | | раганус | , |] _ |
|----------------------|---|-------------------------------|-------------|---|------------------------------|--|--|----------------------------------|----------------------|--|-----|
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Soil | Timing/@rowth Stage BBCH) | Actual Spray Volume GPA | Bate Ib a AA (kg a.s./ha) | Retreatment Interval्र (days) | Total Rate 16 a.s./A | Tank MacAdjuvates | |
| RV240- 11DB | , CA Region 10 2011 | BYI 02960 SL 200 | | Airblast Airblast | 85 85 85 85 80 | 212 (1978) | 1.34 (1.50) | | 1.70 (1.9) | MSO, 0.25% v/v MSO, 0.25% v/v | |
| | | 4 4 | | |) J | 2 ½5 (20) 4) (20) 4) (1992) (1992) | 0.183 (0/205) (0/205) (0/203) | 9 | 0.364 (0.408) | NIS, 0.25% v/v NIS, 0.25% v/v | |
| RV241- 11DA | CA Region 10 2011 | 02960 SL 02960 SL | TIOSF | Soil Sorter Soil Sold Soil Soil Soil Soil Soil Soil Soil Soil | 83 | ÃΝ̈́A | 1.34 (1.50) 0.184 (0.206) | NA 89 | 1.71 (1.91) | MSO, 0.25% v/v MSO, 0.25% v/v | |
| | CA Region 10 2011 Q | | | Anolast | 03 | (2565) | (0.205) | | ed on ne: | 0.25% v/v xt page | |

Table 6.3.2.1-22 (cont'd): Study Use Pattern for BYI 02960 200 SL on Oranges (comparative trials)

| | | | | | | Applicati | ion | | | |
|----------------------|---|-------------------------------|-----------|----------------------------|----------------------|-----------------------------------|------------------------------|----------------------|------------------|---|
| | IA | tion | | | | | | | | |
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Aethod | iming of powth Stage | Actual Spray Volume GPA (இத்த) | Bate lb askA (kg a.s./ha) | Retreatment Interval | L Rate 46 A.S./A | K Masadjuvants |
| Iria | Loca | End. | Plot | | | | Rate lb (kg a.s./ | day | Fota kg | |
| RV241- 11DA | CA Region 10 2011 | BYI 02960 SL 200 | TRTDF | A Polast | 83 | 283 | (0.200) | NA | 0.369 | Jank \$25% \$V/V |
| | | | | | w w | | | | | %25% \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ |
| | | | | Airplast | 85) J | (25/8) (25/8) | 00.84 | | O1.28 (1.44) | NIS, 0.25% v/v |
| RV242- 11DA | , CA Region 10 2011 | 02960 St | TRISE | Soil Dench | 7 5 / V | NW X | Ø921 (1.03) | NA | Ol.28 (1.44) | MSO, 0.25% v/v |
| | | 298YI 02960 \$1 200 | | Soil Brench Afgelast | , Ô | 291 Ø1881) | Ø.184 × | 91 | | MSO, |
| | | | | | , 5 2 | (244 × | (0.206) | | | 0.25% v/v |
| Ž, | | BY | | r>/ ⊘≫ | 789 789 | 244 2 (22797) | ©0.178 (0.199) | 14 | | MSO, 0.25% v/v |
| | | | | | | ~~~ | | | | |
| RV242- 11DA | CA Region 10 201 | BY 02960 SL 200 | THE TOP | Airbla® | 89 | 251 (2347) | 0.183 (0.205) | NA | 0.362 (0.406) | NIS, 0.25% v/v |
| | | | | Airblast | 89 | 245 (2289) | 0.179 (0.200) | 9 | | NIS, 0.25% v/v |
| 4 | | | | | | | | | | v/v |

TRTSF = Treated plot receiving the soil drench application followed by two foliar applications

TRTDF = Treated plot receiving two foliar applications

Duplicate composite samples of oranges were collected from the all plots, at intervals of 0, 1, 3, 8 to 10 and 21 days after the second foliar application. An additional duplicate sample was collected from the plot seceiving an additional soil drench application at 28 days after the final treatment. Single composite samples of oranges were collected from the control plots on the same day the target-PHI 1day samples were collected from the treated plots.

The residue(s) of BYI 02960, DFA, and DFEAF were quantitated by HPLC-MS/MS using stable isotopically labelled internal standards. The individual analyte residues were summed to give a total BYI 02960 residue. Residue measurements below the analyte LOQ were summed into the total BYI 02960 residue value as the analyte LOQ value.

Findings

Concurrent recoveries of BYI 02960, DFA, and DFEAF were measured with each set of samples to verify method performance. All recoveries were corrected for any interferences in corresponding controls. The overall mean of the recoveries at each tortification level was within the acceptable range of 70 to 110%, and the standard deviation (SD) values were below 20% (Table 8.3

Summary of Recoveries & BYI \$2960 from Orange Table 6.3.2.1-23: (comparative trials)

| | | | . / // | | | <i>(()</i> |
|----------------|-----------|-------------------------|-------------|--|--------------|---------------------|
| Crop Matrix | Analyte | Spike Level (ppm) | Sample Size | Recoveries (%) | Kecovery | Std O Dev (%) |
| | BYI 02960 | 0.0 | \$ 15 \$ | " 75, 77, 72, 68, 77, 69, 64, 69, 22, 78, 98, 70, 64, 64, 64 | 717 | 6.2 |
| | | \$1.0 ° | 3 | © 4,76,76,76 © | 7 6 | 0.93 |
| Oranges | DFA 🚀 | 0.05 | \$12 ¢ | 86,92,74,18,73,73,69,74, 68,77,72,72 | \$ 76 | 6.9 |
| | <i>.</i> | ₽ 0 € | 30 | 2° 579, 79, 76 | 78 | 1.9 |
| | DELAF | 0.0 | Ø15 🖔 | 93, 75, 86, 60, 55, 73, 56, 86, 7 104, 71, 71, 67, 69, 72, 66 | 74 | 13 |
| | | (1.0 | 3 | \$3,89,79 | 84 | 5.1 |

....at BVI 02960 residues were stable in orange during proof to analysis. The maximum storage period of frozen samples was 210 days. A summary of the storage conditions is shown in the Table

Table 6.3.2.1-24: Summary of Storage Conditions for Orange

| Residue Component(s) | Matrix (RAC) | Maximum Average Storage Temperature (°C) ^a | Actual Storage Duration months (days) b,c |
|-------------------------|-----------------|---|---|
| BYI 02960 | Oranges | < -20 | 7 (210) |
| DFEAF | Oranges | < -20 ≥ | 7 (2)0) |
| DFA | Oranges | < -20% | © (210) |

a The maximum average storage temperature is from the time of sample receipt at BRP until sample extraction and the maximum of all average freezer temperatures at BRP and Payant. While preparing for sample analysis, the samples were maintained in a laboratory freezer.

b The storage duration is the time from field sampling through the last sample extraction.

and A. 2012. Storage rability of BYI 02960, diffuoroacetic acid, and difluoroethyl-amino-furanone in plant matrices. Bayer Crap Science Report No. RARVP046, amended version including 18-month data (KIIA 6.1.1/01).

The total BYI 02960 residue data for oranges following either two following applications, or afternatively a single soil drench and two foliar applications of BYI 02960 200 SL are how on Table 6.3.2.1-25.

Table 6.3.2.1-25: Total BYI 02960 Residue Data from Citrus after Two Foriar Applications of BYI 02960 SL

| Trial Trial NAFT | ot Nache | Wariety Ch | minogity (2) | Lotal Rades Stras.S./A (kgas.s.) | Sampling Anterval | BYI 02960 Besidu (mg/kg) | | DFEAF Residue (mg a.s. equiv./kg) | Total Residue (mg a.s. equiv./kg) ^b |
|---------------------------------|----------|---------------------|-----------------|-------------------------------------|-------------------|-----------------------------|------------------|--------------------------------------|--|
| RV239 -11DA CA Region 10, | TRADF | Valencia | F řtu řt | (0.409) | 1 0 | 0.016 0.010 | <0.050 <0.050 | <0.010 <0.010 | 0.076 <0.070 Avg: <0.070 |
| | | | | | 1 | 0.018 0.023 | <0.050 <0.050 | <0.010 <0.010 | 0.078 0.083 Avg: 0.08 |
| | | | | | 3 | <0.010 <0.010 | <0.050 <0.050 | <0.010 <0.010 | <0.070 <0.070 Avg: <0.070 |
| | | ♥ • ♥ | | | 10 | <0.010 <0.010 | <0.050 <0.050 | <0.010 <0.010 | <0.070 <0.070 Avg: <0.070 |
| | | | | | 21 | <0.010 <0.010 | <0.050 <0.050 | <0.010 <0.010 | <0.070 <0.070 Avg: <0.070 |



Table 6.3.2.1-25 (cont'd): Total BYI 02960 Residue Data from Citrus after Two Foliar Applications of BYI 02960 SL

| | | | 02900 SL | | | | | | | 0 |
|----------------|--|-----------|-------------------|-----------|------------------------------------|---------------------------------------|--|--|--|--|
| Trial Number | Location (City, State, NAFTA Region, and Year) | Plot Name | Crop Variety | Commodity | Total Rate Lba.s./A (kg a.s.ha) | Sampling Interval (days) ^a | BYL 02960 Residue (mg/kg) | DFA (mg | DFEAD Residue | Fortal Residue (Mg/as, equitokig) ^b (Mg/as, equitokig) ^b |
| RV239 -11DA | CA, Region 10, 2012 | TRTSF | | | | 100 | 0.034 | <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 | \$0.010 0.010 0.010 0.010 0.010 0.010 | Avæ; |
| RV240 -11DB | CA, Region 10, 2011 | TWIDE S | Washing-ton Navel | Fruit | 0.364 | 1 3 8 | 0.108 0.109 0.108 0.207 0.141 0.155 0.136 0.103 | <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 | <0.010 <0.010 <0.010 <0.010 <0.010 <0.010 <0.010 <0.010 | 0.168 0.169 Avg: 0.17 0.168 0.267° Avg: 0.22d 0.534 0.548 Avg: 0.54 0.196 0.163 Avg: 0.18 0.094 0.120 Avg: 0.11 |

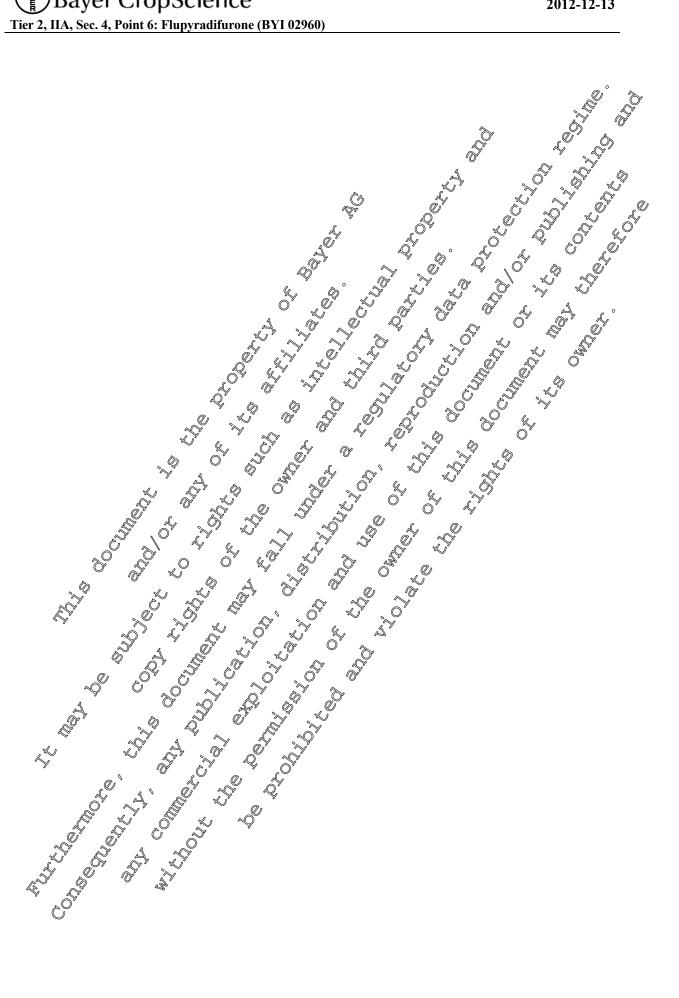




Table 6.3.2.1-25 (cont'd): Total BYI 02960 Residue Data from Citrus after Two Foliar Applications of BYI 02960 SL

| Trial Number | Location (City, State, NAFTA Region, and Year) | Plot Name | Crop Variety | Commodity | Tatal Rate Lba.s./A (kg a.s.ha) | Sampling Interval (days) ^a | BOL 02960 Residue (mg/kg) | DFA Residue | DFEM Residue | Ental Residue |
|----------------|--|-----------|--------------------|-----------|------------------------------------|---------------------------------------|---|---|---|--|
| RV240 -11DB | CA, Region 10, 2011 | \ \ \ \ \ | | | | | 0.156 0.08 0.106 0.106 0.107 0.147 0.147 0.147 0.152 0.067 | 0.368 0.4021 0.267 0.267 0.431 0.923 0.923 0.923 0.329 0.364 | \$0.010 \$0.010 \$0.010 \$0.010 \$0.010 | 0.494 0.578 0.494 0.433 0.579°° Avg: 0.166 0.182 Avg: 0.17 0.48 0.596 Avg: 0.54 0.429 0.441 Avg: 0.43 0.476 0.525° Avg: 0.476 |
| RV241 -11DA | CA,Q Region 10, | TRIBE | Olinda Walencia | Fruits | 0.369 (0.413) | 1 | 0.102 0.083 | <0.050 <0.050 | <0.010 <0.010 | 0.162 0.143 Avg: 0.15 |
| | | | | | | 3 | 0.061 0.034 0.041 | <0.050 <0.050 <0.050 | <0.010 <0.010 <0.010 | 0.121 Avg: 0.12 0.094 0.101 |
| | | | | \$ | | 10 | 0.041 0.068 0.0916 | <0.050 <0.050 <0.050 | <0.010 <0.010 <0.010 | 0.101 Avg: 0.10 0.128 0.152 |
| | CA, Region 10, Quit 1 | | | | | 21 | 0.094 0.081 | <0.050 <0.050 | <0.010 <0.010 | Avg: 0.14 0.154 0.141 Avg: 0.15 |



Table 6.3.2.1-25 (cont'd): Total BYI 02960 Residue Data from Citrus after Two Foliar Applications of BYI 02960 SL

| | | | 02900 SL | | | | | | | 0 | _ |
|----------------|--|-----------|--------------|-----------|------------------------------------|---------------------------------------|---|--|---|---|---|
| Trial Number | Location (City, State, NAFTA Region, and Year) | Plot Name | Crop Variety | Commodity | Total Rate LbG.s./A (kg a.s.ha) | Sampling Interval (days) ^a | By 1.02960 Residue (mg/kg) | DFA Residuê (mg a.s. equiv./kg) | DFEAD Residue | Fotal Rekitine (mgas. equitokg) | |
| RV241 -11DA | CA, Region 10, 2011 | | | | | | 0.053 0.067 0.067 0.039 0.039 0.069 0.092 | <0.050 \$0.050 <0.050 \$0.013 \$0.067 \$0.050 | \$0.010 \$0.010 \$0.010 \$0.010 \$0.010 | 0.188 Ave: 923 0.118 0.199 ° A@: | |
| RV242 -11DA | CA, Region 0, | TRTDF | Naval 5 | Fruit | 9.362 (6.406) | 1 | 0.1 0.107 0.091 0.089 | <0.050 <0.050 <0.050 <0.050 <0.050 | <0.010 <0.010 <0.010 <0.010 | 0.16 0.167 Avg: 0.16 0.151 0.149 Avg: 0.15 | - |
| | CA, S Region 10, 2011 | | | | | 10 | 0.090 0.076 0.12 0.113 0.035 0.035 | <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 | <0.010 <0.010 <0.010 <0.010 <0.010 | 0.150 0.136 Avg: 0.14 0.18 0.173 Avg: 0.18 0.095 0.095 Avg: 0.10 | |



Table 6.3.2.1-25 (cont'd): Total BYI 02960 Residue Data from Citrus after Two Foliar Applications of BYI 02960 SL

| | | | | | | | | | | 0 | |
|--------------|--|------------|--------------|-----------|------------------------------------|---|----------------------------|----------------------------|-------------------------|--|---|
| Trial Number | Location (City, State, NAFTA Region, and Year) | Plot Name | Crop Variety | Commodity | Tatal Rate Lba.s./A (kg a.s.ha) | PHI (Preharvest Interval) ^a | By 1,02960 Residue (mg/kg) | DFA Residue | DFEACRESIQUE | Constant Residue (Article Article Arti | |
| RV242 | , | TRTSF | Naval | Fruit | 7.25 (1.41) | 0 4 | 0.4-0 | <0.050 <0.050 Q | <0010 <0.010 | 3 .232 § | Ć |
| -11DA | CA, | | | | (1.41) | Q, | 0.188 | <00050 | 0.010 | 0.248 | |
| | Region 10, 2011 | | | 2 | | 7 | 0.172 | | | AV2.4 | |
| | 2011 | | | | | | 0.12 7 0.059 | <0.050 <0.050 <0.050 | <0.010 | 0.187 | |
| | | | 4 | | | | 0.09 | <0.050 | 0.010 | 0.21 0 , ° | |
| | | | | | | " | A . (| <0.050 50.050 | | 0.187 0.219 ° A@r. | |
| | | | | | | 3% / | 0.124 0.124 001 | <0.050 | Ø 010 | $O_{0.184}$ | |
| | | | | | | 35 5 | (D) 1 | .050 | Ø.010 0.010 0.010 | 0.17 | |
| | | | | | | | | <0.050 | | Avg: 0.18 | |
| | | Ç | | "0" | | 16 | 0.141 | <0950 | 0.010 | 0.201 | • |
| | | W. | &, ĉ | | <i>~</i> | ~Y | 0.141 | <i>₿</i> 60.050 | <0.010 | 0.222 | |
| | | | | | 4, ~ | \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | | | 1 | Avg: 0.21 | |
| | | 4 | | | | S) | ₩ * | ≈0.050 ≈0.050 | <0.010 | | |
| | Į. O. | | | Ş | | Ol* | Q 11 Q .072 | \$\square\$0.050 | < 0.010 | 0.17 0.132 | |
| | | | | | | | <i></i> | | | Avg: 0.15 | |
| | | | | | | | | 0.050 | 0.010 | | |
| | | | | | | 2 2 8 | 0.058 Ø.053 | <0.050 <0.050 | <0.010 <0.010 | 0.118 0.113 | |
| | | √ 1 | | | F S | , ° | Y | 0.020 | 0.010 | Avg: 0.12 | |
| | | | | <u> </u> | | | | | | 0.12 | |

- Sampling interval is the interval between last oplication and sampling date at harvest.

 Total BYI 02960 residue is the sum of BYI 02960, DOA, and DFEAF residue in parent equivalents. Residue measurements below the gralyte SOQ were summed into the total SYI 02960 residue value as the analyte LOQ value. These totals represent the upper limit of what the residue levels might be.
- Maximum residue found in oranges, sampled at 1 day.

 Highest verage field trial (HAFT) residue found in oranges, sampled at 1 day.

 Maximum residue found in oranges, sampled at May.
- Highest average field rial (HAFT) residue found in oranges, sampled at 1 day.
- Maximum residue found in Franges, Famplet et 28 days.

TRTSF = Treated plot receiving two airblast applications subsequent to a soil drench application TRTDF = Treated plot receiving two foliar (dilta) airblast) applications



Conclusion

Four decline field trials were conducted to measure the magnitude of total BYI 02960 residue in/on_ o oranges following one soil drench application of BYI 02960 200 SL followed by two foliar applications, as well as the magnitude of total BYI 02960 residue following two foliar applications thus comparing the planned NAFTA use pattern with the worst-case GAP for Frazil.

Table 6.3.2.1-26:

Summary of Residue Data for Total BYI 02966 from Oranges (comparative trials)

| | | q | Total BVI 02969 Residue Levels (ppm) | |
|-----------|------------------------|---|--|-----------|
| Commodity | Plot Name ¹ | Total Appli- cation Rate I a.s./A (kg a.s./ha) | PHY (days) Nigg at Max, free PHI 40 | Deviation |
| Orange | TRTDF | 0.362-0.369 (0.406-0.413Q) | | 19 |
| Orange | TRTSF | (1.438-1,3912) | 1 8 0085 0.57% - 0.506 0.170 0.236 0.17 | 75 |
| Orange | TRTSF | 1.281-1.706 (1.438-1.912) | 0.504 0.091 0.185 0.19 | 96 |

- 1 TRTDF = Treated plot is ceiving two district airblast applications: TRTSF = Treated plearer ing one sor drenet application followed by two foliar applications.
- 2 HAFT = Highest Werage Deld Trax.
- calculated on the basis of residue values at the PLA
- Sampling da howing highest residue

The decline trials showed that the total BXY 02960 residues remained generally flat, or decreased slightly by the end of the study. In general, the plot receiving a soil drench application followed by two foliar applications pased pon the proposed Brazilian GAP) had slightly higher residues than the plot receiving only two foliar applications. However, the highest residue found in the plot using the proposed Brazilian GAP is significantly Tower than the proposed MRL for the citrus crop group (which is calculated from the residue data from the definitive residue study (RARVY012; KIIA 6.3.2.1/01) and from the following from this bridging study. In all trials, the highest residue was always detected before the dast sampling event (28 days after the last application).

Residue Data from **BRAZIL**

BYI 02960 is to be registered in Brazil for soil and/or foliar treatment use in/on citrus. The use pattern in Brazil is summarized in Table 6.3.2.1-27.

A total of ten trials (5 trials covering the worst case use of a soil treatment followed by two follows: spray applications and 5 trials covering the two foliar spray applications, only) were condicted orange. The studies are described below.

Target Use Patterns for the Application of By 02960 on Strus in Table 6.3.2.1-27:

| | | | | 41 - | (I) | - n | _ (/) | W/// |
|------------------|-----------|---|--------------------------------|------------------------------|--|--------|--------------------------------------|----------------|
| | | | Target A | ite 😞 | | Ŷ, | | |
| | | | | Active Substance (48.) | Aarget Ö Äpp.Ö | Target | | <i>,</i> ° |
| | | | Form. | Journal Control | App.O | Target | Adjuvant | Spray |
| Test | | Mode of | Product | (a.s.) | Interval | ₽HI_ | Additive | Spray |
| Substance | Appl. No. | Appl. | (fp) | ga.s./ha | (Days)a | (Days) | (% ₀ ,v/v) ^b & | Volume |
| BYI | 1 | Soil Drench (Directed Je© at the base of the plants) | 5 ml /moter trees height | yar. | NAC 10 10 10 10 10 10 10 10 10 10 10 10 10 | | None None | 50 mL/plant |
| 02960 200 SL | 2 | Foliar 🛴 | 1.04L/Ha | 200 | | . 4) , | © 0.25 | 2000 L/Ha |
| | 3 | Foliar | ©1.0 LANA | 200 | \$\frac{1}{415} \tag{7} | | 0.25 | 2000 L/Ha |
| BYI 02960 200 | 1 5 | Foliation | 1/0 L/Ha | 200 | O NO | £75 | 0.25 | 2000 L/Ha |
| SL | | Foliate) | 1.0% Ha | 200 | © 15 Z | 0 | 0.25 | 2000 L/Ha |

- A single soil drench application applied at 90 days before the first foliar application.
- Adjuvant Methylated Soybean Oik

 Var wariable. Application rate or formulated product is ml/metor tree leight. Active substance rate per hectare depends on tree density and height.

| Report: | KIIA 6.3.2.1/04; 2012 |
|----------------|--|
| Title: | Determination of residues of BYI 02960 and its metabolites, in citrus after drench |
| | application at the base of the plants, followed by foliar spray application of BYI 02960 |
| , & | 200 SL) in field trials in Brazif |
| Report No. & | I11-022, dated March 06, 2012 |
| Document No.: | M-427041-62-3 |
| Guidelines: | Resolution of Collegiate Board of Directors |
| | RDC No. 216 of December 2006, 15th |
| T S | Non-coli i a Nor and a doth |
| Suitemes. | National Health Surveillance Agency – ANVISA, from the Ministry of Health |
| GLP | Ses & |

Five trials were conducted to measure the magnitude of BYI 02960 residues in/on citrus, following a single soil drench application followed by two broadcast foliar spray applications of BYI 02960

200 SL. BYI 02960 200 SL is a soluble concentrate formulation containing 200 g BYI 02960/L. The location of field trials are presented in Table 6.3.2.1-28.

Table 6.3.2.1-28: Trial Numbers and Geographical Locations for BYI 02960 in/on Citrus in Braz

| Identification of Field trial | Site of the Field trial (municipality / state, country) | Name and address of the property |
|----------------------------------|---|----------------------------------|
| I11-022-01 | / SP, Brazil | |
| I11-022-02 | / SP, Brazil | |
| I11-022-03 | / SP, Brazil 《 | |
| I11-022-04 | / PR, Brazil | |
| I11-022-05 | / SPOBrazil | |

Material and Methods &

BYI 2960 200 SL was applied as soil drench at a cate of 5 mL formulated product/meter plant height (1 g a.s./meter plant height). Individual foliar application rates ranged from 0.181 to 0.210 kg BYI 02960/ha/application. The interval between the drench and the first foliar application was 90 - 91 days and the interval between the foliar applications was 15 days.

A typical non-ionic adjuvant bash HE (mix of metryl estors, aromatic hydrocarbons, unsaturated fatty acids and surfactant) was used in all of the foliar applications at 0.25% (v/v).

In all trials, drench applications were performed using directed jet. The following foliar spray applications were carried out using a pully rization speak with one nozzle.

Trial Site conditions, including soil characteristics are summarized in Table 6.3.2.1-29. Study use patterns are summarized in Table 6.3.2.1-20.

Table 6.3.2.1-29: Trial Site Conditions for BYI 02960 on Citrus

| Identification of Field Trials | I11-022-01 | I11-022-02 | I11-022-03 | I11-022-04 | I11-022-05° |
|---|-----------------|-----------------------------|----------------------|------------------|-----------------|
| Principal Investigator | Junior | Junior | 7 | | |
| Size of the Plots Control / Treated (m ²) | 200 / 120 | 180 / 144 | © 126 / 126 | 144/144 | 349 |
| Number of Plots | 2 | 2 4 | 2 🖏 | 6° 24, 4 | |
| Spacing between the lines (m) | 5 | 6 | g. 3 × | | |
| Type of Soil | Clayey | Clayey | Red Yellow Clayer | Clayey | Sayey (|
| pH value of Soil in CaCl ₂ | 5.4 | | | 6.1 | |
| pH value of Soil in Water | - Ş | | | | 4.7 |
| Content of organic (%) | 3.5 | | \$1.8 E | 2.1 | 2.8 |
| Soil Topography | Decovity O | Declivity < 500 | Declivity \$\int 5\% | Declivity < 5% | Declivity < 5% |
| Test System | Çitrus (Taŭits) | Citrus (fruits) | Citrus (fruits) | Citrus (fruits) | Citrus (fruits) |
| Variety | Pêba Rio | Pêra Rio | Valencia | % alência | Valência |
| Date of planting/seeding or age of the plant | 11/2006 | \$\frac{1}{2}002\frac{1}{2} | 011/2000 7 | 11 years | 09/1998 |
| | Ö May Ç | May | \sqrt{une} | July | May |
| Date of commercial harvest | to via | | 1. 10% | to | to |
| | August | August | O October | August | August |
| harvest | August 5 | August | | | |



Table 6.3.2.1-30: Study Use Pattern for BYI 02960 200 SL on Citrus

| Identification of the Field trial | Type of Application | Dates of application (mm/dd/yy) | Culture stage (BBCH) | Effective spray volume (L) | Effective applied dose (L/ha) | Height MFPlant (m) |
|-----------------------------------|---------------------------|---------------------------------|----------------------------|-------------------------------------|---|--------------------------|
| | Directed jet | 03/30/2011 | 75 | 4.0 F | 5 mL / meter of height of the plant | \$1.8 \$7.8 |
| I11-022-01 | Foliar Pulverization | 06/29/2011 | © 85 | Ø5.0 | 1004 | |
| | Foliar Pulverization | 07/14/2011 | 86 | 5 ^Q 25.0 | 1.008 | 0 1.8,0 |
| | Directed jet | 04/01/201 | 77~ | Q4.0 Q | 5 mJc/meter of Deight of the plant | 3 .0 |
| I11-022-02 | Foliar Pulverization | 06/3002011 | 86 | 30 .0 <i>ć</i> | 1,014 | 3.0 |
| | Foliar Pulverization | 00 15/201x1 | X 86 | 30.0 | 1.007 | 3.0 |
| | Directed jet | 03/22/2011 | \$\frac{7}{73} \tilde{\pi} |) | 5 ml. meter of Weight of the plant | 3.0 |
| I11-022-03 | Foliar 😽 Pulverizati@n | \$6/20\delta 11 | | 360 | 0.952 | 3.7 |
| | Foliar Pulverization | 0705/2010 | ® 87 % | 30.0 % | 1.051 | 3.7 |
| | Directed it | 03/24 2011 | \$\tag{71} \tag{*} | 4.0 | mL / meter of height of the plant | 3.5 |
| I11-022-04 | Foliar Pulverization | 06/22/2011 | \$ 80 | 39.0 | 0.904 | 3.5 |
| | Foliar V | 07/07/2011 | 89 5 | 39.0 | 0.975 | 3.5 |
| | Directed jets | 03/250011 | Ø5 0 | 4.0 | 5 mL / meter of height of the plant | 3.0 |
| I11 - 022 - 05 | Folkar Pulvesization | 06723/20J1 Q | 895 | 75.0 | 0.962 | 3.0 |
| | Foliar Poverization | 07/08/2011 | 89 | 75.0 | 1.022 | 3.5 |

Duplicate emposite samples of Sitrus were collected from the treated plot at sampling intervals of 0, 7, 14, 21, and 28 days. The intended pre-harvest interval is 0 days. A single control sample was collected at each sampling event.

The residue(s) of BYI 02960 DFA and DIC AF were quantitated by HPLC-MS/MS using stable isotopically abelled internal standards. Whe individual analyte residues were summed to give a total BYI 02960 residue. For the purpose of this summary document and to provide residue data for calculation of ARLs residue measurements below the analyte LOQ were summed into the total BYI 02960 residue value as the analyte LOQ value.



Findings

Concurrent recoveries of BYI 02960, DFA, and DFEAF were measured with each set of samples to o verify method performance. All recoveries were corrected for any interferences in corresponding controls. The overall mean of the recoveries for each matrix was within the acceptable range of 0 to 110%, and the standard deviation values were \leq 20% (Table 6.3.2.1-31).

Summary of Recoveries of BYI 02960 from Citrus Table 6.3.2.1-31:

| verify method | performanc | e. All recoveri | ies were co | rrected for ar | ny interferen | ices in cor | responding® | |
|--|-------------|--|----------------|---------------------------------|---|--|---------------|-----|
| controls The | overall mea | n of the recove | eries for eac | ch matrix was | within the | accentable | e range 📆 0 t | 0 ® |
| verify method controls. The of 110%, and the | standard de | eviation values | were < 200 | % (Table 6.3 | 2 1-31) | | | (h) |
| 11070, and the | standard de | viation values | were ≤ 20 | 70 (Table 0.5. | 2.1-31). | OF THE STATE OF TH | | 7 " |
| | | | | | 4 | | | Ö |
| Table 6.3.2.1-3 | 1: Sumi | mary of Recove | eries of BY | I 02960 from | Citrus 🞺 ' | , | | |
| | | Fortification | | | | Č | | |
| Crop Matrix | Analyte | Level | Sample | Recoveries | Mean % | CY Ø | JOQ N | , O |
| Стор мисти | Timulyte | (mg/kg) ^a | Size (n) | ₄ © [™] (%) | Recovery | (%) | Ang/kg) | |
| | | (8 8/ | a | 102; 112; | A O | 0. | Y | Ş |
| | | 0.01 | 7 | 07: 104: 6 | 7 V V V V V V V V V V V V V V V V V V V | 15 | | 9 |
| | | 0.01 | W | 90. 80:279 | | | | |
| | BYI | | 0, | (g, 5, 50) | | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ | C A | , 0 |
| | 02960 | 0.1 | A 7 0 | ~ 107@F11; ↓ | R do | \$ 16 | | ¥ |
| | | 0.1 | | 2, 79, 95 2105: 86 | | 16 | | |
| | | | | (J. 03, 84) | 0' 4' | | | |
| | | l ő¥ | <u> </u> | y 95;©12 | 940 | \$ - B | | |
| | | , O | "O" | 83; 79; | | | | |
| Citrus/Fruits | | 0.1505 | 70 | ¥01; 92©) | \$93 | | () | |
| | DFA | | | @£04; 9 <u>8</u> €97 | | Ö | 0.05 | |
| | DIA | | . S | 77; \$3; 90; | | | 0.03 | |
| | ٥, | 👰 1. 59 5 👸 | 7,4 | 98; 97; 🐧 | 90 | 9.4 | | |
| | | | | © 100; \$ \$ | | Z, | | |
| | | \$ 0174J | | 87; 85 ; 91; (| | ×27 | | |
| | | | | 82, 85; 83, | 85 ″ | ∜ °3.7 | 0.01 | |
| | DEEAF | | | 291: 86: 95: | \$ ® | | 0.01 | |
| | | ₩ .177 _€ | | 87; 90; 86 | \$ 86.75° | 6.6 | | |
| | | ' | 16.0 X | | <u>, </u> | 1 | 1 | |

a Expressed as parent BYI 02960 equivalents

The freezer storage stability saidy indicates that BYI 02960 residues were stable in orange fruits during frozen storage for at least 18 months prior to analysis. The maximum storage period of frozen during frozen storage for at least 18 months prior to analysis. The maximum storage period of frozen samples in this study for BYI 93960 was 110 days. A summary of the storage conditions are shown in Table 6.3.2 4-32.



Table 6.3.2.1-32: Summary of Storage Conditions for Citrus Fruits

| Identification of the Field trial | Scheduled DAT (days) ^a | Crop date (mm/dd/yy) | Date of last extraction (mm/dd/yy) | Storage Temperature ^b (°C) | Storage Period (days) ^c | Period covered by the yevaluation of Stability (days) 4 |
|---|--------------------------------------|--|---|---|--|---|
| | 0 | 07/14/2011 | | <-20 | № 83 | |
| | 7 | 07/21/2011 | | <-20 | 76 × | |
| I11-022-01 | 14 | 07/27/2011 | 10/05/201 | <-200 | 70 J | \$56 \$ |
| | 21 | 08/03/2011 | | <-10 | 62 | |
| | 28 | 08/11/2011 | | 2 0 &° | 3 5 6 | |
| | 0 | 07/15/2011 | 16005/2011 | ~-20 _~ | 82 | |
| | 7 | 07/22/2011 | √√√√√√√√√√√√√√√√√√√√√√√√√√√√√√√√√√√√ | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ |) 96 , 69 , | |
| I11-022-02 | 14 | 07/30/2011 | 10/05/2011 | | | \$ 5 56 }, , , ° |
| | 21 | 08/06/2017 | 10/26/2011 | ~-20_4 | \$81 | |
| | 28 | 08/12/2011 | 10/11/2011 | ~ <-20 × × | y 60 × | |
| | 0 | 07/05/2011 | | 7 <u>\$2</u> 0 5 | | |
| | 7 | 074)2/20146 | 10 [™] /√1/201 [™] | ~-20~ | ≥ 91 ≥ | |
| I11-022-03 | 14 | 0 % 19/2 ⊘ 11 | \$0/26/2 0 11 | S <-20 s | 990 | [™] 556 |
| | 21 | ©07/26\2011 | 010/1162011 <u>(</u> | Q 0 | | |
| | 28 ≪ | 08/02/201 | 10(11/2011 | √√-20°√ | <i>₾</i> 70 | |
| | 0 , 🔯 | Ø/07/20₽1 | | <-200 | 7 104 | |
| | 7 | 07/14/2011 | | Ş —20 ₩ | | |
| I11-022-04 | A O | 07/21/2011 | 10/09/2011 | Ø-20 ∜ | ₹ 90 | 556 |
| | 21 | 07/28/2011 | | @ <-20 | , 83 | |
| | 28,0 | \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | | | 76 | |
| 7 | | 07/08/2011/0° | 10/26/2014 | -20 | 110 | |
| _ | | 07/15/2011 | •16921/2001 | O <-20° | 98 | |
| I11-022-05 | 14 | <07/22/2011 | 010/21/2011 | @ <- 20 0 | 91 | 556 |
| | 2 | 07/29/2011 | 10/2011 | ©-20 | 84 | |
| · | 2028 | 08/05/2011 | 10/21/2011 | △°><-20 | 77 | |

a DAT – Days after ast Treatment: Sata for each sampling is equivalent to control and treated sample of corresponding scheduled DAT.

The total EVI 02960 residue data for citrus fruits following a single soil drench and two foliar applications of EVI 02960 200 SL are shown in Table 6.3.2.1-33.

scheduled DAT.

b Samples were stored with dry ce during transportation to UPA and from UPA to the Laborato and at <-20 °C during storage at UPA and the Laboratory.

c Period to tween processing and sample extraction of corresponding sampling (DAT). For samples extracted more than once, the date of the last extraction of treated sample was a way as the consideration for the calculation of storage period.

d difluoroethyl-amino-furanone in point matrices. Bayer CropScience Report No. RARVP046, amended version including 18-month data (KIIA 6, k 1/01)

Total BYI 02960 Residue Data from Citrus Fruits after a Single Soil drench and Table 6.3.2.1-33: Two Foliar Applications of BYI 02960 SL

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| atio | | ha) Ljet | .s./ | (s) | 93 | | % | <u>♥ 8</u> | L Gra |
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| I11-022-01-011C-01L | E | 15 | 200 | 21 | ï.23 % | ×0.01 Q | 0.22 | 0.46 | 0.47 |
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| I11-022-02-015C-05E | T | Q15 | \$200 | 28 | 0.17 | < 0.01 | 0.21 | 0.39 | 0.53 |
| | | | | | | C | 'ontinued | on next p | oage |
| | 111-022-01-009C-01L 111-022-01-011C-01L 111-022-01-014C-01L 111-022-01-014C-01L 111-022-02-001C-01L 111-022-02-001C-01L 111-022-02-01C-01L 111-022-02-01C-01L 111-022-02-01C-01L 111-022-02-01C-01L 111-022-02-01C-01L 111-022-02-005C-01L 111-022-02-005C-01L | I11-022-01-001C-01L C I11-022-01-004C-01L C I11-022-01-007C-01L C I11-022-01-010C-01L C I11-022-01-013C-01L C I11-022-01-003C-01L T I11-022-01-005C-01L T I11-022-01-006C-01L T I11-022-01-006C-01L T I11-022-01-009C-01L T I11-022-01-011C-01L T I11-022-01-012C-01 T I11-022-01-012C-01 T I11-022-01-012C-01 T I11-022-01-014C-01L T I11-022-01-014C-01L T I11-022-02-004C-01L T I11-022-02-004C-01L C I11-022-02-005C-01L C I11-022-02-005C-01L T I11-022-02-02-005C-01L T I11-022-02-02-00 | 111-022-01-001C-01L C | Til-022-01-001C-01L C C Til-022-01-004C-01L C C Til-022-01-007C-01L C Til-022-01-013C-01L C Til-022-01-013C-01L C Til-022-01-003C-01L T Til-022-01-003C-01L T Til-022-01-005C-01L T Til-022-01-005C-01L T Til-022-01-006C-01L T Til-022-01-006C-01L T Til-022-01-008C-01L T Til-022-01-008C-01L T Til-022-01-01C-01L T Til-022-01-01C-01L Til-022-01C-01L Til-022-02-00C-01L Til-0 | 111-022-01-001C-01L | 111-022-01-001C-01L C 0 <0.01 111-022-01-004C-01L C 7 <0.01 111-022-01-007C-01L C 14 <0.01 111-022-01-010C-01L C 2 0 0 111-022-01-013C-01L T 15 200 0 0.25 111-022-01-003C-01L T 15 200 7 0.25 111-022-01-005C-01L T 15 200 7 0.25 111-022-01-006C-01L T 15 200 14 0.32 111-022-01-008C-01L T 15 200 14 0.32 111-022-01-009C-01L T 15 200 21 0.26 111-022-01-011C-01L T 15 200 28 0.13 111-022-01-014C-01L T 15 200 28 0.13 111-022-01-015C-01L T 15 200 28 0.13 111-022-01-015C-01L T 15 200 28 0.13 111-022-02-004C-01L T 15 200 28 0.13 111-022-02-004C-01L T 15 200 28 0.22 111-022-02-004C-01L T 15 200 28 0.33 111-022-02-004C-01L T 15 200 3 0.01 111-022-02-005C-01L T 15 200 7 0.01 111-022-02-005C-01L T 15 200 7 0.18 111-022-02-006C-01L T 15 200 7 0.18 111-022-02-006C-01L T 15 200 7 0.25 111-022-02-006C-01L T 15 200 7 0.25 111-022-02-006C-01L T 15 200 7 0.18 111-022-02-006C-01L T 15 200 7 0.25 111-022-02-006C-01L T 15 200 7 0.25 111-022-02-006C-01L T 15 200 7 0.18 111-022-02-006C-01L T 15 200 7 0.25 111-022-02-006C-01L T 15 200 7 0.25 | The part of the | Heat Heat | 111-022-01-001C-01L C 0 <0.01 <0.05 <0.07 <0.01 <0.05 <0.07 <0.01 <0.05 <0.07 <0.01 <0.05 <0.07 <0.01 <0.05 <0.07 <0.01 <0.05 <0.07 <0.01 <0.05 <0.07 <0.01 <0.05 <0.07 <0.01 <0.05 <0.07 <0.01 <0.05 <0.07 <0.01 <0.05 <0.07 <0.07 <0.01 <0.05 <0.07 <0.07 <0.01 <0.05 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0.07 <0 |

Table 6.3.2.1-33 (cont'd): Total BYI 02960 Residue Data from Citrus Fruits after a Single Soil drench and Two Foliar Applications of BYI 02960 SL

| | | | | | | | Re | esidues (m | ıg/kg) | |
|------------------------|--|------------------------|---|------------------------------|--|---------------------------|---------------|--------------------|-----------------------|----------------------------------|
| | əle | | æ | | | | | BYI 029 | | |
| Field trial / Location | Identification of Sample | Type | Rate (L/ha) (directed jet- drench) ^a | Rate (g a.i./ha) (foliar) | DAT (AP) | B <u>V</u> 1 02960 | DFEAF | DFACE STATES | Totake sal | Total Archage of Scale BYI 02960 |
| | I11-022-03-001C-01L | С | | @ |) 0 | ≈0.01 (| © 0.01 ° | Q,<0.Q50° | <0,097 | % - |
| | I11-022-03-004C-01L | C | | * | 7 | % (0.01) | <0.046 | <0,03 | ° €0.07 | y - |
| | I11-022-03-007C-01L | C | | - 6 ³ | ©14 🖒 | <0.01 | <0.01 | 9 .05 | ₹0.07 | - |
| | I11-022-03-010C-01L | C | | 4 | × 2101 | ≨ 6 .01 | © 0.01 | ~0.03 ₀ | \U.1976" | J. |
| | I11-022-03-013C-01L | С | 15 | 2008 | 28/ | <0.01 <u>4</u> 0.20 | <0.01 | <0.05 0.09 | < 0.7 | ~ - |
| | I11-022-03-002C-01L | T T | 15 | 200 200 200 | | 0.26 | <0.0x | Ø.11 <i>(</i> | ₹ 0.3 € | 0.33 |
| I11-022- | I11-022-03-003C-01L | T | 120° | © 200 % | | 0.20 s | ©0.01 | 0.08 | 0.33 0.29 | |
| 03 | I11-022-03-005C-01L I11-022-03-006C-01L | T | Q 15 | | ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ | 0.20 | <0.01 | 0.0 | 9.32 %9.32 | 0.31 |
| | I11-022-03-008C-01L | T. Ø | • | 2005 2000 | \$ 14.0 | 0.20 | <0.00 | 9.15 ¢ | 0.35 | |
| | I11-022-03-008C-01L | | 15 | 200 | 14 | Ø24 | ©90.01 | 0.12 | 0.37 | 0.36 |
| | I11-022-03-009C-01E | T | 15 | 200 | 200 | 0.13 | <0.01 | 0.12 | 0.26 | |
| | I11-022-03-011C-01E | T | 15 | 200 | \$\tag{21} | 0.13 | <0.02 | 0.12) 2017 | 0.26 | 0.31 |
| | I11-022-03-012C-01L | T | 15 4 | 200 | 28,0 | Ø.13- | , <0.01 | 00.19 | 0.37 | |
| | I11-022-03-015@TL | \(\hat{Q}^{\dagger'}\) | ~~\display | 7, 200 S | 7 28 | 9.13 | ₹0.01 | 0.12 | 0.26 | 0.32 |
| | I11-022-04-000 -01L | C C | 5 S | / | | © <0.01 | <0,01 | < 0.05 | < 0.07 | - |
| | I11-022-04-004C-01 | C | | ~_Y | 7 7 5 | <0001 | ≈0 ,01 | < 0.05 | < 0.07 | - |
| | I11-022-0@007C-@L | C | Z. | , O « | / 1 ₂ | \$0.01 | 0.01 | < 0.05 | < 0.07 | - |
| | I11-022-04-0100-01L | Ų°C | , | | Q. | 0<0.01, | | < 0.05 | < 0.07 | - |
| | I11-022-04-013C-01k | C % | ? - | - D | ************************************** | <0.00 | < 0.01 | < 0.05 | < 0.07 | - |
| | IAC 022-04-002C-0 L | J.S | 15 | 200 | \$ 025° | Ø)16 | < 0.01 | < 0.05 | 0.22 | 0.21 |
| 111 000 | 111-022-04-003@-01L | `≯¶ | € 15 | \$ 200 | ₀ 0 | ×0.13 | < 0.01 | < 0.05 | 0.19 | 0.21 |
| I11-022- 04 | I11-022-04-005C-01L | Y T | § 15,° | 200 | 07 | 0.13 | < 0.01 | < 0.05 | 0.19 | 0.19 |
| 04 | I11-022-04-006C-01 | ŢĊ | 1/5 | \$ 20 0 | ~ 7 S | 0.12 | < 0.01 | < 0.05 | 0.18 | 0.19 |
| | I11-022- Ø 4-008Ç Ø ĬL | ð | 1/5 1/5 \$\$\text{\$\ext{\$\text{\$\exiting{\$\text{\$\exititt{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\exititit{\$\text{\$\texitit{\$\texititt{\$\text{\$\text{\$\text{\$\text{\$\text{\$\texitit{\$\text{\$\e | © 200 _s C | 140 | 0.05 | < 0.01 | < 0.05 | 0.11 | 0.12 |
| | I11-022-04-009C-01L | O T | y 15 🔊 | 7 20 6 | ∂\4 | 0.07 | < 0.01 | < 0.05 | 0.13 | 0.12 |
| | I114022-04-011C-01L | T | 15 | ·200 | Z 21 | 0.06 | < 0.01 | < 0.05 | 0.12 | 0.12 |
| | LEG-022-04-012C-01L | Ą, | 15 | 2 00 | ≫ 21 | 0.06 | < 0.01 | < 0.05 | 0.12 | 0.12 |
| | J11-022-04-014©01L | ∆ T | ⁷ 15 | 200 | 28 | 0.04 | < 0.01 | < 0.05 | 0.1 | 0.11 |
| | I11-022-04-015C-01L | T | 15 🦞 | 200 | 28 | 0.05 | < 0.01 | < 0.05 | 0.11 | 0.11 |
| | 111-022-04-006C-011 111-022-04-008C-011 111-022-04-009C-011 111-022-04-011C-01L 111-022-04-012C-01L 111-022-04-015C-01L | | | Q [*] | | | C | 'ontinued | on next p | age |



Table 6.3.2.1-33 (cont'd): Total BYI 02960 Residue Data from Citrus Fruits after a Single Soil drench and Two Foliar Applications of BYI 02960 SL

| | | | 1 | | 1 | 1 | | | | <u> </u> |
|------------------------|--------------------------|-----------------|--|------------------------------|--------------|---------------------------------------|--|--|---------------|-----------------|
| | le | | _ | | | | R | esidues (1 | ng/kg) | |
| uo | dwr | | ch) a | | | | | BYI 029 | | |
| Field trial / Location | Identification of Sample | Type | Rate (L/ha) (directed jet- drench) ^a | Rate (g a.i./ha) (foliar) | DAF (Agys) b | BYI 02960 | ZOS DFEAF | DVFA | Optal of Cal | Total Nerage of |
| | I11-022-05-001C-01L | C | | کے | , 0 | <0.60 | <0.09 | √ 0.05 √ 0.05 | € 0.07 | , -Z |
| | I11-022-05-004C-01L | C | | | 7 | ≈ 9⁄201 ° | Ø .01 | - " | O.0 % | |
| | I11-022-05-007C-01L | C | | % | ↑4 | √Q0.01× | ×0.01, | <0.00° | <0.07 | ₹°- |
| | I11-022-05-010C-01L | C | | 0 / | D 21 🕺 | <0.01 | <0.00 | <905 | <0.07 | - 0 |
| | I11-022-05-013C-01L | C | 🔏 | | 280 | < Q)1 | <0.01 | ≪0.05 | 0.070 | 5 0.34 |
| | I11-022-05-002C-01L | T | 15 | 200 | ~JO | % 0.33 | → 0.01 (| 0.05 | 0.39 | \$ 34 |
| 111 022 | I11-022-05-003C-01L | T | 13 | ~ \$ 00 | @ 0 <u>~</u> | 90.22 | <0.01 | < 0.03 | 0.28 | 0.34 |
| I11-022- 05 | I11-022-05-005C-01L | T | 6 €5 € | 200 | 7.9" | 0.36 | <0\$\$\text{\$\ext{\$\exitt{\$\exititt{\$\exititt{\$\exitit{\$\exititt{\$\exitit{\$\exitit{\$\exitit{\$\exititt{\$\exitit{\$\exititit{\$\exitit{\$\exitit{\$\exitit{\$\exitit{\$\exitit{\$\exitit{\$\exititt{\$\exitit{\$\exititit{\$\exitit{\$\exitit{\$\exititit{\$\exitit{\$\exititit{\$\exitit{\$\exitit{\$\exititit{\$\exit | Q 05 | © 0.42 | 0.41 |
| 0.5 | I11-022-05-006C-01L | T | √ 15 °C | 200 · | ** | 0233 | 3 0.01 | 20.05 | 0.32 | 0.41 |
| | I11-022-05-008C-01L | T ~ | 150 | 20 00 | © 14 | 50.29 |)<0.Q1Q | 0.08 | 0.38 | 0.40 |
| | I11-022-05-009C-01L | | %)3 | 200 @ |) 14 J | 0.330, | <0.01 | (E)F | % 0.42 | 0.40 |
| | I11-022-05-011C-01L | Ų"T ∢ | 15 | 200 | 21 21 | g 21 | °,≤Ø.01 | ©0.09 | 0.31 | 0.32 |
| | I11-022-05-012C-01 | T C | 15 15 | 200 | 2 | \ \ \ \\ \ \ \\ | ×0.01 | 7 0.08 P | | 0.52 |
| | I11-022-05-014C-011 | <u> </u> | | 2 00 | ÿ 28 ≤ | 00 | <0.01 | 0,07 | 0.28 | 0.34 |
| | I11-022-05-015@-01L | Ç1 ^y | 2 915 | O 200 | 28 | 029 | € 0.01 | × 0.09 | 0.39 | 0.5. |

- Drench Application of mL meter of heights the plant. Height of the plants of the Study = 3 meters
- DAT: Days after last Treatment
- DAT: Days after that Treatment

 All residues found below the Limit of Quantitation (LOQ) of the method (both higher than the respective LOD values) are reported as <0.01 mg/g for BPI 02960 and DFEAF, and < 0.05 mg/kg for DFA Total BYI 02960 residue is the sum of BYI 0296@ DFA, and DFEAF resider in parent equivalents.
 - Residue measurements below the malyte LOO were summed into the total BVI 02960 residue value as the analyte LOO Residue measurements below the manalyte LOO were summed into the total By value. These totals represent the opper limit of what the residue levels might be.



Conclusion

Five field trials were conducted to measure the magnitude of total BYI 02960 residues in/on citrus fruits (orange) following a single soil drench and two foliar spray applications of BYI 02960 200 C. The residues found in the fruits are summarized in Table 6.3.2.1-34.

Table 6.3.2.1-34a: Summary of Residue Data for Total BYI 02960 from Citrus after a Single Soil Drench followed by Two Foliar Spray Applications of BYI 02960 200 SL

| | | 1 | | © p :1 a | | |
|------------------------|------------------|---------------------|--|--|---------------------------------------|------------------------|
| | | | | Residues | Vimg/kg) | |
| | | | 4 | Expressed in By | 12960 Equivatents | |
| | | | 4 | BYI 02960 ² | , , , , , , , , , , , , , , , , , , , | |
| Identification | | Scheduled | | difluoroethyl- | | ~ |
| of the Field | | DAT | (V | aminonaranone | dimoroaceric | Cal Total of BY 02960b |
| trial/Place | Crop | (days) ^a | BYI 929 60 | (DFEAF) | acid (DOFA) | "BYI 02960" |
| 111 022 01 | | 0 | 0.24 | ©<0.0.0 | <0.05 | 0.30 L° |
| I11-022-01 Ribeirão | Citrus | 7 | Ø.28 ♥ | < 0.01 | Ő0.20.√ | 0.49 |
| Preto-SP | fruits | 14 | © 0,2% _ | U . \$9.01 O | 0.06 | 2 3 4 |
| 11000 21 | | 21 | \$ \Q\24 \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | ~\$\sqrt{0.01} | Ç 0 2 1 <i>Q</i> | 0.47 |
| | | 28 | 0.18 | <0.01 | Ø.19 \$ | 3 0.37 |
| | | 0, 🔻 | 0.3 | 9 20 .01 4 | 0.18 | 0.53 |
| I11-022-02 | Citrus | | 0,22 | ₹<0.01¢ | 0.42 | 0.35 |
| SP - | fruits | 14 📞 | €0.24 € | © <0.0¥ | 9 .16 | 0.41 |
| 51 | ٩ | 21 | \$\tag{6} 0.16\tag{7} \tag{1} | | 0.18 | 0.35 |
| | × 1 | 28 0 | | 0.01k | 030 | 0.53 |
| | | 00 | @0.22 \S | <0.0P | 40 .10 | 0.33 |
| I11-022-03 | Carus | 4 7 5 | 2 0.20 × | S ≥ 9 .01 € | 0.10 | 0.31 |
| -SP | Truits | AA (| 0.22 | \sim \sim 0.01 \sim \sim | 0.14 | 0.36 |
| 2 | | © 21 O | & Ø.16 | \$\sqrt{0.0}\rightarrow \qquad \qq \qu | 0.15 | 0.31 |
| | <i>©</i> ' | 28% | <u>1</u> 0.137 | <0.01 | 0.16 | 0.32 |
| | × | | 0.15 | 0.01 | 0.05 | 0.21 |
| | Citrus | , 0)7 / ° | 0.13 ° 0 | ~ <0 <u>:</u> Q | 0.05 | 0.19 |
| I11-022-04 -PR | frots | 4 14 | ~ | <0.01 | 0.05 | 0.12 |
| -1 K | | 20 3 | 0.06 0.06 | 3 0.01 | 0.05 | 0.12 |
| | , ° 8 | 28 D | 07.05 | © <0.01 | 0.05 | 0.11 |
| ~ Q | Ü | 0 0 | 0.28 | <0.01 | 0.05 | 0.34 |
| I11-022- 95 | Citrus . | | 0.98 | < 0.01 | 0.05 | 0.41 |
| Paulínia SP | Citrus fruits | Q 4 | 31 | < 0.01 | 0.08 | 0.40 |
| . 4.) | | 21 0 | 0.22 | < 0.01 | 0.09 | 0.32 |
| | | 28 | 0.5 | < 0.01 | 0.08 | 0.34 |
| | Q1. | | | | 1 | 1 |

a DAT: Days after last Treatment

Residue most represent the analyte LOQ were summed into the total BYI 02960 residue value as the analyte LOQ value. These totals represent the upper limit of what the residue levels might be.

b The results were reported as the average of 2 (two) results obtained in each sampling. All residues found below the Limit of Quantifation (LOQ) of the method (but higher than the respective LOD values) are reported as < 0.01 mg/kg for BYI 02960 and FEAF, and < 0.05 mg/kg for DFA. Total BYI 02960 residue is the sum of BYI 02960, DFA, and DFFAF residue in parent equivalents.

Table 6.3.2.1-34b: Summary of Residue Data for Total BYI 02960 from Citrus after a Single Soil Drench followed by Two Foliar Spray Applications of BYI 02960 200 SL (considering single values from a sampling event)

| | _ | 1 | 3 | | | Total I | 3YI 0296 | 0 Residu | e Levels | (ppm) |
|-----------|-----------|---|------------|---|---------------|---------------|----------------------------------|----------|----------|---|
| Commodity | Plot Name | Total Appli cation Rate | PHI (days) | u | Min at PHI | Max at PHI | Max After PHI | HAFT Ž | Modian 3 | Mean 3 Mean 3 Standard Deviation |
| Orange | TRTSF | 1 g a.s. / m plant height plus 0.376-0.404 kg a.s. /ha | 0 | 5 | 0.19 | 0.55 Q | © 66 (28) ⁴ © ° | 0.53 | 0.33 | 0.54 0.916 |

- 1 TRTSF = Treated plot receiving one soil drench application followed by two foliar applications.
- 2 HAFT = Highest Average Field Trial.
- 3 calculated on the basis of residue values at the PHI
- 4 Sampling day showing highest residue

Table 6.3.2.1-34c: Summary of Residue Data for Total BVI 02960 from Citrus after a Single Soil Drench followed by Two Foliar Spray Applications of BVI 02960 200 SI (considering average value from a sampling event)

| Commodity | Plot Name 1 | Total Áppli- cathon Rate | HI (daya) | Wiii W | otal Bydr | 02960 Re | sidue Le | Mean 7 | Standard (u |
|-----------|-------------|-----------------------------|-----------|-----------------|-----------|----------|----------|--------|-------------|
| Orange | TR\$SF | | | 0 5 I √(∩`^ 1 ` | 0.53 | \ -\S | 0.33 | 0.34 | 0.117 |

- 1 TRTSF Treated plot receiving our soil dench application followed by two foliar applications.
- 2 calculated on the basis of residuo values at the PHI

The change in the total BYI 02960 residue with time in the citrus samples was variable depending on the trial. In general, the total BYI 02960 residue either declined or leveled off by the end of the sampling interval. The peak residue was reached at day 14 at latest, when considering the average values of two samplings per sampling event. The overall highest residue detected was detected at the PHI of 6 days and accounted for 0.53 mg/kg when considering the average residue values. Considering the single values, the highest residue (0.66 mg/kg) was detected in one trial at the last sampling event, 28 days after the last application.



| Report: | KIIA 6.3.2.1/02; ; 2012 |
|---------------|--|
| Title: | Determination of residues of BYI 02960 and its metabolites, in citrus after foliar spragapplication of BYI 02960 (200 SL) in field trials in Brazil. |
| Report No. & | I11-006, dated March 09, 2012 |
| Document No.: | M-427468-02-3 |
| Guidelines: | Resolution of Collegiate Board of Directors RDC No. 216 of December 2006, 15 th |
| | RDC 140. 210 of December 2000, 15 |
| | RDC No. 4 of January 2012, 18th |
| | National Health Surveillance Agency ANVISA, from the Ministry of Health |
| GLP: | Yes |

Five trials were conducted to measure the magnitude of BYI 02960 residues in/on curus (orange), following two broadcast foliar spray applications of BYI 02960 200 SL. BYI 02960 200 SL is a soluble concentrate formulation containing 200 g BYI 02960/L. The location of field orials are presented in Table 6.3.2.1-35.

Table 6.3.2.1-35: Trial Number and Geographical Cocations for Boll 02960 Foliar Application Trials in/on Citrus in Brazili

| Identification of Field trial | Test Unit (municipality / state, Name and address of the property country) |
|----------------------------------|--|
| I11-006-03 | SP, Brozil |
| I11-006-04 | |
| I11-006-05 | SP, Brazal |
| I11-006-06 | SP, Brazil |
| I11-006-07 | / SR Brazil |

Material and Methods

Two foliar applications were prade to citrustrees at rates ranging from 0.194 to 0.204 kg BYI 02960/hoper application. Total seasonal rates ranged from 0.388 to 0.408 kg a.s./ha. The interval between the applications was 19 days.

A typical non-lonic adjuvant, Dash HC (mix of methyl esters, aromatic hydrocarbons, unsaturated fatty acids and surfactant) was used in all of the foliar applications at 0.25% (v/v).

Trial site conditions, including soil characteristics are summarized in Table 6.3.2.1-36.



Table Table 6.3.2.1-36: Trial Site Conditions for Foliar Application Trials of BYI 02960 on Citrus

| Identification of Field Trials | I11-006-03 | I11-006-04 | I11-006-05 | I11-006-06 | I11-096-07 |
|---|----------------|-----------------|-------------------|---------------------|---------------------|
| Principal Investigator | | | | Junior | Junior O |
| Plots Size (m ²) Untreated/Treated | 343 / 343 | 144 / 144 | \$26 / 126 | 200 / 120 E | 180 / 1440 |
| Number of Plots | 2 | 2 | V 2 | 2 0 | \$ \$ W |
| Spacing between the lines (m) | 7 | 6 | | | |
| Type of Soil | Clayey | Clayey | Red Yellow V | Clayey | Chayey |
| pH-value of soil (in CaCl ₂) | - | 6.1 | | 5.4 | £ 6.0° |
| pH-value of soil (in H ₂ O) | 4.7 | | J-7 | | , |
| Content of organic (%) | 2.8 | 2.1 | F 4.8 | 3.50 | 3.1 |
| Soil Topography | Declivity 💍 | Declivity < 5% | Declivity 5 | Devivity Q | Declivity < 5% |
| Test System | Curus (faurts) | Citrus (fruits) | Çitivus (frants) | Citrus (Pruits) | Citrus (fruits) |
| Variety | Valencia, 🖔 | Valencia | Valencia 🛴 | Bêra Rio | Pêra Rio |
| Date of the planting | 09/1998 | 🛴 11 years 🎉 | 17/2004 | 11/2006 | 02/2002 |
| Date of commercial harvest | May May August | July to S | June June October | May to August | May to August |

Duplicate composite samples of citrus were collected from the treated plot at sampling intervals of 0, 7, 14, 21, and 88 days. The intended pre-harvest interval is 0 days. A single control sample was collected at each sampling event.

The residue(s) of BY 02960, DFA and DFEAF were quantitated by HPLC-MS/MS using stable isotopically labelled interpal standards. The individual analyte residues were summed to give a total BYI 02960 residue. For the purpose of this summary document and to provide residue data for calculation of MRLs residue measurements below the analyte LOQ were summed into the total BYI 02960 residue value as the analyte LOQ value.

Findings

Concurrent recoveries of BYI 02960, DFA, and DFEAF were measured with each set of samples to verify method performance. All recoveries were corrected for any interferences in corresponding



controls. The overall mean of the recoveries for each matrix was within the acceptable range of 70 to 110%, and the standard deviation values were \leq 20% (Table 6.3.2.1-37).

Table 6.3.2.1-37: Summary of Recoveries of BYI 02960 from Citrus

| Table 6.3.2.1 Crop Matrix | 37: Sum | nmary of Recov Fortification Level (mg/kg) a | Sample Size (n) | Recoveries | Citrus Mean % Recovers | CV (%) | LOQ Jong/kg) |
|-----------------------------|--------------|---|---------------------------|--------------------------------------|-------------------------|---|--------------|
| | | 0.01 | 5 | 90; %; 79; | 8 9/ | 7.3 | 0.01 |
| | BYI 02960 | 0.1 | 5 | 100; 84; 87; 99; 82 × | 90 0 | \$'.4 \(| 0.01 |
| Citrus/Fruits | | 1 | 5% | 96; 95; 106; 92; 99 | \$98 £ | 5.4 | |
| | DFA | 0.05 | | 99, 103; 115, 99; 89 | | 9.3 | 7 0.01 O |
| | | 0.5 | \$\frac{4}{5} \frac{5}{5} | 103;102; ^ 105; 94; 89 | | \$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | |
| | DFEAF | \$ 0.01 \text{\$\frac{1}{2}\$} | | 85; 93; 85; 87; 90 86; 93; 93; | 880 | 3.9 | 0.05 |
| | | 0.1 | 5.57 | © 91; 85° | 90 5 | | |

Expressed as parent BOT 0296@equivalents

The freezer storage stability study indicates that BYI 02960 residues were stable in citrus fruits commodities wring to zen storage for at least 18 month prior to analysis. The maximum storage period of frozen samples in this stady for BYL 02960 was 127 days. A summary of the storage conditions are shown in able Table 3

Summary of Storage Conditions for Citrus Fruits

| Identification of the Field trial | sampling (days) a | Harvest date Jamm/ddfyy) | Pate of Jast Extraoron (mm/dd/yy) | Storage Temperature (°C) ^b | Storage Period (days) ^c | Period covered by Evaluation of Stability (days) ^d |
|---|-------------------|-----------------------------|-----------------------------------|---|--|---|
| W. | | . 09/08/1 / | | <-20 | 122 | |
| V | 7 0 | [07/15/11] | , O ′ | <-20 | 115 | |
| I11-006-03 | 44 2 | 07/Q2 /11 <i>Q</i> | 11/07/11 | <-20 | 108 | 556 |
| | <u>~</u> 21 ~ | 07/29/10 | | <-20 | 101 | |
| Ÿ | 28 | \$08/05/T1 | | <-20 | 94 | |
| | | 07/14/11 | | <-20 | 118 | |
| | | 07/21/11 | | <-20 | 111 | |
| 1/21-006-04 | 14 🕏 " | 07/28/11 | 11/09/11 | <-20 | 104 | 556 |
| 14:7-006-04 | 21 | 08/04/11 | | <-20 | 97 | |
| | 28 | 08/11/11 | | <-20 | 90 | |

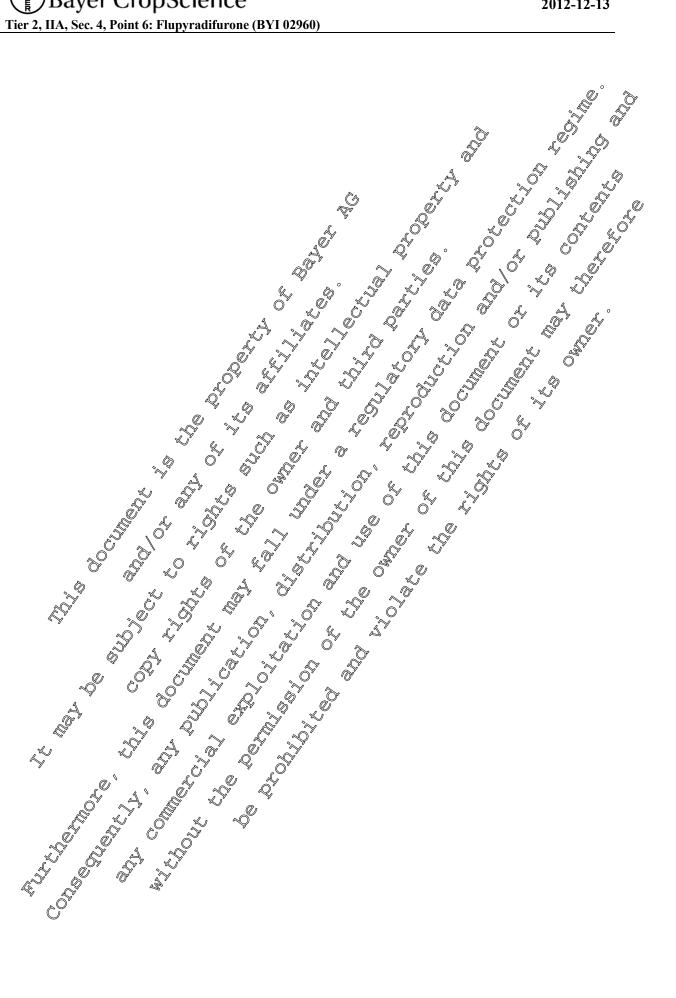




Table 6.3.2.1-38 (cont'd): Summary of Storage Conditions for Citrus Fruits

| Identification of the Field trial | Scheduled DAT sampling (days) ^a | Harvest date (mm/dd/yy) | Date of last extraction (mm/dd/yy) | Storage Temperature (°C) ^b | Storage Period (days) ^c | Period covered by the evaluation of stability (days) |
|---|---|----------------------------|---|---|--|--|
| | 0 | 07/05/11 | ۵. | <-20 | 127 % | |
| | 7 | 07/12/11 | | <-20@ | 120 | 555 |
| I11-006-05 | 14 | 07/19/11 | 11/09/11 | <-20/ | 1,13 | J 556 , |
| | 21 | 07/26/11 | , Ö | \$20 | _006 ' | |
| | 28 | 08/02/11 | | ₹-20 <i>\</i> | Ö 99 A | |
| | 0 | 07/15/11 | . 20 | ~ <-20 ~ | IJ) | |
| 111 007 07 | 7 | 07/22/11 | | 2 20 | Q12 | |
| I11-006-06 | 14 | 07/30/11 | 11 /44 /11 💍 | €-20 ° | 104 | €356 €° |
| | 21 | 08/06/11 | 11/H/11 E | <-20, | 97, | |
| | 28 | 08/12/1 | | \$ 620 x | 39 1 3 | |
| | 0 | 07/15/1 (| Y . Q . Q | -20 0 | 2125 Ø | |
| | 7 | 07/22/11 | | ~ <-20° | 118 | |
| I11-006-07 | 14 | 07/30/19 | \$1/17\P | 5 x20 ° | J\$0 _ | 556 |
| | 21 4 | © 08/06/11 | | Q-20 C | 0103 | |
| | 28 | 08/12/11 | | \$\left\{ \left\{ \text{-20}} | 97 | |

- a DAT Days after last Treatment; Data for each sampling is equivalent to control and treated sample of corresponding
- scheduled DAT.

 Samples were stored with dry in during transportation to UPA and from UPA to the Laboratory and at <-20 °C during storage at UPA and the Laberatory.
- Period between processing and sample extraction of corresponding sampling (DAT) for samples extracted more than once, the date of the last extraction of treated sample was taken into consideration for the calculation of storage period.
- . 2012. Storage stabion of B 2 02960, difluoroacetic acid, and The total BYI 02960 residue data for citrus fruits following two foliar applications of BYI 02960 200 SL are shown in Table 6.32.1-39 difluoroethel-amino-furanone in plant matrices. Bayor CropScience Report No RARVP046, amended version including

Total BYI 02960 Residue Data from Citrus Fruits after Two Foliar Applications of Table 6.3.2.1-39: BYI 02960 SL

| | | | | | | | Residue | s (mg/kg) | <u> V</u> |
|---------------------------------------|-----------------------|----------|-------------------|---------------|---------------------|-----------------------|--------------------------|----------------------------|----------------------------------|
| | | | | | | • | | | |
| | ple | | £. | в (3 | | | Від | 02900 | |
| Field trial / Site | ication of Sam | | ; a.s./ha) (folia | led DAT (days | 0967 | | | ited Tetal of 960 b 22 | Maked Lings of Average of Second |
| Field tr | Identifi | Type | Dose (g | Athedu | BYI 02 | DFEA | DFA | | Calcul |
| | I11-006-03-001C-01L | С | | Q 0 | <0.01 | | < 0.05 | <0.07 | ~~ - |
| | I11-006-03-004C-01L | С | & | 7 0 | <0:01 | ₹0 401 | *0 .05 | <0.07/ | W - |
| | I11-006-03-007C-01L | С | <u> </u> | 14 | 0.01 | ð [₹] 0.01? | ₹ 0.05 € | Ø_07 △ | ۰ آ. |
| | I11-006-03-010C-01L | С | -4 | <u></u> | ©<0.01 | ° <0.Q1 | <0.05 | 0.07 | Ű, |
| | I11-006-03-013C-01L | С | √G , ' | 28 | <0,00 | <0.01 | ≤0,05 | ≈ <0.07, | \$ - |
| | I11-006-03-002C-01L | T | ©200 & | | °0,18 | \$0.01 <i>,</i> | 4 0.05 € | D 0.034 C | 0.24 |
| I11-006-03 | I11-006-03-003C-01L | T C | 200 | · | 0.17 °C | °<0.01 | <0.0 | 7 (0/)<u>1</u>- | 0.24 |
| / | I11-006-03-005C-01L | 70°, | 200 | 7 | 0.22 | <0.07 | <0.005 | 16 300 | 0.20 |
| SP | I11-006-03-006C-01L | T | 200 g | 7. | 0,24 | 49 .01 | 3 0.05 $_{\odot}$ | 0,30 | 0.29 |
| | I11-006-03-008C-01L | Ç T ° | > 200 | 120 | √9.16 @ | 0.01 | <0.05 | 6 22 | 0.24 |
| | I11-006-03-009C-01L | TK, | 200 | \$14 <i>(</i> | » 0.19 [©] | <0.0% | <0.69 | 0.25 | 0.24 |
| | I11-006-03-011C-092 | P | 200 | 21 | 0.14 | €0,01 | ũ205 | 3 0.20 | 0.21 |
| | I11-006-03-012C-01L | A,T | 200 | 2.0° | 6 .16 4 | < 0.01 | ر م 0.05 م | 0.22 | 0.21 |
| | I11-006-03-014C-01L | | 0.25 | | | | | | |
| | I11-006-03-015C-01L | Î, | ~200 | ॐ28 🔊 | 0.19, | <0.01 | 0.07 | 0.27 | 0.25 |
| | I11-006-09-001C@1L | | W, \ | | ≤© 01 | Ø.01 _{&} | \$ 0.05 | < 0.07 | - |
| | I11-00-04-004C-01L | °∀ C _ & | | | <0.01 | ×<0.01× | < 0.05 | < 0.07 | - |
| | I11-006-04-007C-01L | C O | <u> </u> | 6 14 | O.06 | <0.03 | < 0.05 | < 0.07 | - |
| | I&-006-04-010C-01L | , Q | 4 > | 💝 21 🐨 | < 0.01 | 0 .01 | < 0.05 | < 0.07 | - |
| | 711-006-04-013€-01L × | C C | g" | 28> | | % 0.01 | < 0.05 | < 0.07 | - |
| | 111-006-04-002/C-014 | T, | 200 | | 0.08 | < 0.01 | < 0.05 | 0.14 | 0.16 |
| I11-006-04 | I11-006-04Q03C-0112 | Æ, | s 200 | ~ 0 S | | < 0.01 | < 0.05 | 0.17 | 0.16 |
| / | I11-006@4-005C401L | Øτ | √ 200 √ 3 | 7 | 0004 | < 0.01 | < 0.05 | 0.10 | 0.00 |
| - DD | I11-006-04-00€€-01L≪ | T | | F | | < 0.01 | < 0.05 | 0.07 | 0.09 |
| PR | 114Q06-04-008C-01 | J. | 1 (()) | ~ 14 ~ | , | | | | |
| | 1-006-04-009C-97L | ~QT | £200 à | 140) | | < 0.01 | | | 0.09 |
| | Ø11-006-04-011Ø-01L | T | Ž 200 | 27 | 0.03 | < 0.01 | | 0.09 | 0.00 |
| * | | T~ | 260 | . 2 1 | | | | 0.08 | 0.09 |
| 4 | I11-006-04-014C-001 | ~_{0" | 200 ≈ | 28 | | | | 0.08 | |
| \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | I11-006-Q4-015C-01L | , OT | 200 C | 17/ | | | | | 0.08 |
| | | | | | | | Сон | ntinued on next | page |

Table 6.3.2.1-39 (cont'd): Total BYI 02960 Residue Data from Citrus Fruits after Two Foliar Applications of BYI 02960 SL

| | | | | | | Re | sidues (| mg/kg) | |
|--------------------|--------------------------|--------------------|---|---------------------|-----------------|--------------------|-----------------------------|---------------------------------|---|
| | | | | | | | | | |
| ite | of Sample | | ıa) (foliar) | eduled DAT (days) a | | Æ. | BYL02 | A | |
| Field trial / Site | Identification of Sample | Type | Dose (g a.s./ha) (foliar) | Kinguled D. | BYI 02960 | BFEAF CL | HA O | Calculated Total of BYR 42960 b | Calculated T Average of BM 029602 |
| | I11-006-05-001C-01L | $\frac{\Gamma}{C}$ | | | <0,0 | *Q.01 | <u></u> | <0.07 | |
| | I11-006-05-004C-01L | C | & | 7_0 | .≪ 0 .01 | ₹0.01 × | 0.05 | <0.07% | <u> </u> |
| | I11-006-05-007C-01L | С | Oʻ | , LIA | €0.01 ® | ×<0.0 | <0.030 | < 0.07 | 4 - 00 |
| | I11-006-05-010C-01L | С | | ©21 ~ | Ø <0.01♥ | < 0.01 | ≤0 ,05 | 90.07 | |
| | I11-006-05-013C-01L | С | \$^ | 28 | ≤ Ø1 | √0 .01 ≥ | 0.05 | <0.07 ₁ | |
| | I11-006-05-002C-01L | T | 200% | y 28/y' 20/ | ×0.2 × | ~ 0.01 | (<0.0 %) | 0.26 | 0.27 |
| I11-006-05 | I11-006-05-003C-01L | T_O | 200/ | ~\$0 2 |) 0.22 ° | <0.0F | <0.05 | Ø.28 Ø | 0.27 |
| | I11-006-05-005C-01L | Đ, | 200 | 7 | 0,24 | P .01 | © 0.05 | № 0.27 , | 0.28 |
| - SP | I11-006-05-006C-01L | Ť | \$200 B | 70 | 92 2 | √ 0.01 € | J<0.050 | 0,28 | 0.20 |
| | I11-006-05-008C-014C | T 🦠 | 200 | 1 24 | √y 0.18 💮 | <0.01 | <0.05 | <u>6</u> 24 | 0.24 |
| | I11-006-05-009C-01L | Ø. | 2000 | 😽 14 👦 | | <0.901 | _s < © 205 | 0.24 | 0.21 |
| | I11-006-05-011C01L | G, | ©200 C | 21 | 0,2 | 3 0.01 ≈ | ¥0.05 × | | 0.25 |
| | I11-006-05-012C-01L | T | 200 | 20/ | 0.18 | <0.01 | <0.05 | 0.24 | |
| | I11-006-05-014C-04 | TK) | 200 | 28 | > 0.18○" | <0.64 | <0.05 | 0.24 | 0.21 |
| | I11-006-09-015C-01L | | 200 | 28 | 0/1,2 | <0.01 | <0.05 | 0.18 | |
| | I11-006-06-001@-01L | Y C | ~ ~ | 200 | \$0.01 | ×0.01 | | <0.07 | - |
| | I11 066-06-004C-01L | C C | | | <0.01 | <0.64\(\nu^{\nu}\) | <0.05 | <0.07 | - |
| | 110-006-06-007C-09L | | \$\frac{1}{4} | 210° | <061 | ₹ 01 | <0.05 | < 0.07 | - |
| % | Ø11-006-06-010C-01L | ÇC | | | §0.01 | 0.01 | <0.05 | <0.07 | - |
| į G | 111-006-06-06-0 | C | 200 | 28 | 0.01 | <0.01 | <0.05 | <0.07 | - |
| I11-006-06 | I11-006-06-002C-019 | Ţ | 200° 200° | | 0.14 | <0.01 | <0.05 | 0.20 | 0.23 |
| 111 000 00 | 111-006-05-003C-01L | | | , () | 0.19 | <0.01 | < 0.05 | 0.25 | |
| a D | I11-005-06-00\$C-01L | T T | √ 200 √ 200 √ 200 ✓ | 7° | ©9.13 | <0.01 | 0.07 | 0.21 | 0.19 |
| - SP | 111-006-06-06-06C-01D | | (_)) | | 0.11 | <0.01 | <0.05 | 0.17 | |
| | 111-006-06-009©01L ≈ | O T | 200 | 140 | 0.07 | <0.01 | 0.06 | 0.14 | 0.16 |
| | 111-006-06-009@01L | . 32 | 200 S | 140 | 0.1 | <0.01 | 0.06 | 0.17 | |
| | I11-006-06-061C-015 | | 200 | \$\frac{1}{\pi}\$21 | 0.04 | <0.01 | 0.07 <0.05 | 0.12 0.12 | 0.12 |
| ,W | I11-006-96-014C01L | F | 200 | 28 | 0.06 | <0.01 | 0.06 | 0.12 | |
| | 111-006-06-014C-01L | T | 200 | 28 | 0.06 | <0.01 | < 0.05 | 0.13 | 0.13 |
| | 111-006-06-014C0/L | | Q Q | | | | Conti | nued on ne | ext page |

Table 6.3.2.1-39 (cont'd): Total BYI 02960 Residue Data from Citrus Fruits after Two Foliar Applications of BYI 02960 SL

| | | | | | | Residues | (ma/ka) | | 7% |
|--------------------|--------------------------|---------------------------|---------------------------|--|------------------------|--|------------|-------------------------|----|
| | | | | | | | | | |
| | ole . | | | в (| | BYI |)2960 | | 9 |
| | dwn | | liar | ays | | | of | | |
| | f Sa | | [fo] | p) , | | * | \sim | | 2 |
| Site | n o | | ha) | ΑŢ | | | stal O | | 7 |
| 1 | ıtio | | .s./ | d b | S | l Ø | | | |
| Field trial / Site | ldentification of Sample | | Dose (g a.s./ha) (foliar) | Kieduled DAT (days) a | 05960 | | Ralculated | Caledrated TAVerage (A) | Ó |
| ple | enti | Type | se (| | | BFEAT PFEAT | | era | , |
| Fic | Ide | $\mathbf{T}_{\mathbf{y}}$ | D ₀ | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ | BYI | | | | |
| | I11-006-07-001C-01L | C | | Ø 0 | <0,01 | \$0.01 \$0.05 \$\frac{1}{2}\cdot 0.05\$ | <0.07 | | |
| | I11-006-07-004C-01L | C | & | , 7 Š | © .01 | | <0.07/ | ₩ <u>`</u> | |
| | I11-006-07-007C-01L | C | O | 7 Q | © 0.01 © | <0.08 | | 4 | |
| | I11-006-07-010C-01L | C | | <u>~</u> 21 ~ | ₽ <0.0 1 | < 0.01 < 0.05 | | | |
| | I11-006-07-013C-01L | C | \$ \^ | y 28 y 0 | <001 | € 0.01 € 0.05 | | | |
| | I11-006-07-002C-01L | T | 200% | | >Ø.24 _≪ | O.01 0.20 | | 0.40 | |
| I11-006-07 | I11-006-07-003C-01L | T.O | 200/ | ~\$0 { | y 0.2 0° | <0.01 0.14 | 3.35 | 2 | _ |
| CD | I11-006-07-005C-01L | Q" | 200 | 7 7 | 0.15 | 9.01 60.05 | // n / | 0.21 | |
| - SP | I11-006-07-006C-01L | Ţ, | J ² 200 | 7,5 | <i>9</i> 214 | <0.05 | 0.20 | *** | 4 |
| | I11-006-07-008C-014C | T [®] | 200 | PA | √ 0.09 © | | | 0.17 | |
| | I11-006-07-009C-01L | ØT. | 200 | \$ 14 @ | | <0.05 | - (/) | | 4 |
| | I11-006-07-011C01L | O _T | 200 | 21 | 0.07 | | 0.15 | 0.14 | |
| | I11-006-07-012C-01L | | 200 | 200 ° | 0.06 (| <0.01 0.06 | , | | 4 |
| | I11-006-07-014C-015 | TZ) | 200 200 | \$28 \$20 \$30 | 7 0.070° | <0.01 0.05 | 0.15 | 0.13 | |
| | I11-006-0-015G-01L | | × 200 | ₹ 28 \$ \$ | 0,95 | <0.01 0.05 | 0.11 | | ╛ |

- DAT: Days after ast Treatment
- All residues found below the Limit of Quantitation (LOQ) of the spethod (but higher than the respective LOD values) are reported as < 0.01 mg/kg for BYI 02960 and DFEAF, and < 0.05 mg/kg for DFA Total BYI 02960 residue is the sum of BYI 02960 DFA, and DEEAF residue in partent equivalents.
 - Residue measurements below the shalyte DOQ were summed into the total BYI 02960 residue value as the analyte LOQ per limit of what the residue levels might be.

Conclusion

Five field trials were conducted to measure the magnitude of total BYI 02960 residues in/on citrus Five field trials were conducted to measure the magnitude of total BYI 02960 residues in/on citrus fruits following two foldar spray applications of BYI 02960 200 SL. The residues found in the fruits are summarized in Table 6.3.2.1-40

Table 6.3.2.1-40a: Summary of Residue Data for Total BYI 02960 from Citrus after Two Foliar Spray Applications of BYI 02960 200 SL

| | | | | | | 0 |
|-------------------|----------|---------------------|------------------------|---|-------------------------|---------------|
| | | | | Residues | | |
| | | | | Expressed in BYI 0 | 2960 Equivalents | Š (|
| | | | | BYI 02960- | Z. | |
| Identification of | | Scheduled | | difluoroethyl- | " | Cal Total |
| the Field | | DAT | | aminofuranone | aifluoroacetic (| |
| trial/Place | Crop | (days) ^a | BYI 02960 | (DFEAF) | acid (DFA) | BYV 02960 |
| | | 0 | 0.18 | ▼ <0.01 _Q | < 0.05 | © 0.24 |
| I11-006-03 | Citrus | 7 | 0.23 | <0.01 | < 0.05 | 0.29 (|
| 111-006-03 | fruits | 14 | 0.18 | <0.010 | ° < 40 ,05 | 9.24 گ |
| | | 21 | 0.15 | <0.001 . O | Ø _{0.05\} ©* | © 0.21° |
| | | 28 | 048 | ° \$9.01 × | (C) 0.060° % | 0:25 |
| | | 0 | Qio 🔏 | ~\d0.01\right\rangle \gamma | © < 6 705 L | _0.16 |
| 111 006 04 | Citrus | 7 | A 0.03 0° | <0.0Q √ 4 | № 0.05 © | © 0.09 |
| I11-006-04 | fruits | 14 | 0.03/ | 0 .01 | ~ < 0.0\$J | 0.09 |
| | | 21 | / (Q,0 3 & | ~~0.01 ₀ | <u></u> < 00 005 | Q 09 |
| | | 28 | 0.02 | √ <0.09° √ | \$0.05 | Ø 0.08 |
| | | 04 | 0.21 | × \$0.01 | 0.06 | 0.27 |
| 111 006 05 | Citrus | Ø ,* | v 0022 S | @0.01 ₀ | O < 12,995 (L) | 0.28 |
| I11-006-05 | fruits | V14 | \$\$0.18 _{\$} | <0,0 | 0.05 ° | 0.24 |
| | | © 210° | S 0.100 | <0.01 | 0.050 | 0.25 |
| | % | ¥ <u>\$</u> 8 | QQ 55 | ×0.01 | √ < 900 5 | 0.21 |
| | 2 | \$0 49 | 9.17 | ~ <0.0 × « | ×0.05 | 0.23 |
| 111 007 07 | Çærus | , 7,5 | © 0.125 | \$\text{\$\infty}\$ \$\langle 0.01 \text{\$\infty}\$ | ∜ 0.06 | 0.19 |
| I11-006-06 | Fruits C | y jag « | 7 6.0 9 . S | Ø0.01 & | 2 0.06 | 0.16 |
| | | 2 1 🖔 | Ø.05 /\$ | <0.00 | 0.06 | 0.12 |
| 8 | Ş | © 28 ° | V 0.060 | <601 @ | 0.06 | 0.13 |
| , Q | | , 200 | 032 | ₹ 0.01 @ | 0.17 | 0.40 |
| 111 08 00 | Citrus | 2 7 & | 0.15 | <0.01 | < 0.05 | 0.21 |
| I11-006-07 | frins | ~ 14 _~ | \$ 0.11 | <0.01 | 0.06 | 0.17 |
| | | 26 | y 0497 C | <0.01 | 0.07 | 0.14 |
| | | Ž8 . ® | ×0.06 | <0.01 | 0.06 | 0.13 |
| On | | | | · // | | |

a DAT: Days Oter last Treatment.

The results were reported at the average of 2 (two) results obtained in each sampling. All residues found below the Limit of Quantitation (LOQ) of the method (but Gigher than the respective LOD values) are reported as < 0.01 mg/kg for DFFAF residue in parent equivalents.

Residue measurements below the malyte LOO were summed into the total BYI 02960 residue value as the analyte LOQ value. These totals represent the opper limit of what the residue levels might be. BYI 02960 and DFFAF7 and \leq 0.05 mg/kg for DFA. Too BYI 02960 residue is the sum of BYI 02960, DFA, and DFFAF residue in parent equivalents \circ

Table 6.3.2.1-40b: Summary of Residue Data for Total BYI 02960 from Citrus after Two Foliar Spray Applications of BYI 02960 200 SL (considering single values from a sampling event)

| | _ | 1 | 3 | | | Total l | BYI 02960 |) Residu | ıe Levels (ppm) |
|-----------|-----------|---|------------|---|---------------|---------------|------------------|----------|---|
| Commodity | Plot Name | Total Appli cation Rate lb a.s./A (kg a.s./ha) | PHI (days) | u | Min at PHI | Max at PHI | Max acter PHI | HAFT AÇÎ | Median 3 Median 3 Median 3 Standard Deviation |
| Orange | TRTDF | 0.388-0.408 | 0 | 5 | 0.14 | 0.45 | 03(7)4 | 0.40 | 0.25 |

- 1 TRTDF = Treated plot receiving two foliar applications (diluge spray).
- 2 HAFT = Highest Average Field Trial.
- 3 calculated on the basis of residue values at the PHI
- 4 Sampling day showing highest residue

Table 6.3.2.1-40c: Summary of Residue Data for Total BYI (2960 from Citous after Two Foliar Spray Applications of BY) 02960/200 SV (considering average values from a sampling event)

| | _ | , <u>,</u> , Q , Q | Total BYI 02960 Residue Levels (ppm) |
|-----------|-----------|---|---|
| Commodity | Plot Name | I Appli ur Rate S. Mass (days) | Min at PHB Max at PHI PHI PHI Max at |
| Orange | TRTSF | 0.388-6.408 0 0 5 | 0.16 0.40 0.20 (7)3 0.24 0.26 0.088 |

- 1 TRTDF = Treated part receiving two obliar applications (dilute spray)
- 2 calculated on the basis of residue values at the PHA
- 3 Sampling day Dowing Dighest residue

In general, the total By 02960 residue either declared or eveled off by the end of the sampling interval.

Overall Conclusion – Citrus

Supervised residue trials were conducted in citrus in the US and in Brazil to achieve a national registration in the NAFTA countries and in Brazil.

The NAFTA countries support two different GAPs: Either two foliar spray applications or one soil drench application of BYL 2960 200 SLC Twenty-six to thirty field trials were conducted according to each GAP to measure the magnitude of BYI 02960 residues in/on grapefruit (six trials), lemon (eight trials), and orange (12 trials plus 4 comparative foliar spray trials to support the import tolerance of citrus fruits in Brazil) as representative test systems for NAFTA Crop Group 10; Citrus Fruits. In addition eight field trials in mandarins were conducted to support the import tolerance of small citrus fruits in Europe.

Brazil supports two different GAPs, as well – either a soil drench application followed by two foliar spray applications or two foliar spray applications. Five supervised residue trials were conducted each according to the different GAPs.

A summary of the use patterns tested and the corresponding residue levels are sown in Table 6.3.24-41.

Table 6.3.2.1-41: Summary of Residue Data for Total RVI 02960 from Citrus

| | | | | ~~ | | | | | |
|-----------------|----------------------------------|---|--|----------------|------------|-----------------------|--|--------------|------------------------|
| Crop | Formulation | Use pattern | Method & Company of the Company of t | PHI THAT | No. Applic | NGAFrials Cor | Total Residue of Resid | Peak residue | Day of peak residue |
| NAFTA | | | | \$ | | \$\frac{\times}{2} +4 | | | |
| | SL 200 | 2 x 0.205 kg a.s. 💫 | Foliar spray (diluted) | 1 2 | 2 | 2 2+4 | 5 0.072-0.78 | 1.5 | 3 |
| Orange | SL 200 | 2 x 0.205 kg a %/ha ** | Foliar spray (con | | 20 | 12 \$ | 0,050-0.81 | 2.2 | 10 |
| | SL 200 | 1 x 0.410 kg a.s./ha | Soil dench | 30 ' | | Q | <0.04-0.071 | 0.07 | 30 |
| | SL 200 | 2 x 0.205 kg a.s./ha | Foliar spray (diluted) | . j | 2 🗞 | 6 | 0.15-0.23 | 0.23 | 1 |
| Grape- fruit | SL 200 | 2 x 0 205 kg Q.s./ha | Coliar spray (con) | \mathbb{N}_1 | a y | 6 L | 0.09-0.32 | 0.32 | 1 |
| 11 411 | SL 200 | 1 x 0.410 kg a.s. ha | Soil Grench & | 30 | 1 , | | <0.04-0.086 | 0.09 | 30 |
| | SL 200 | 2 x 0,205 kg 23./ha @ | Foliar spiray (diluted) | Q [*] | 2 🖇 | 8 | 0.15-0.43 | 0.55 | 3 |
| Lemon | SL 200 | 2 x 0.205 kg a.s./ha | Foliar spray (con) | 1 ~ | Q | 8 | 0.07-0.74 | 0.74 | 1 |
| | SI 200 | Ox 0.440 kg a. ha & O | Soul drench | 30 | 1 | 8 | <0.04 | | 30 |
| | _© SL 200 [©] | 2 x 0.205 kga.s./ha | Voliar Tray (diluted) | ¥1 | 2 | 8 | 0.118-0.363 | 0.42 | 3 |
| Mandarin | SL 200 | 2 0.205 kg a.s. (ba | Foliar spray Con | 1 | 2 | 8 | 0.035-0.496 | 1.0 | 10 |
| ~ ~ ~ | SL 200 | 1 x 0,4 Y0 kg \$-\$./ha | Soil drench | 30 | 1 | 8 | 0.018 -0.043 | 0.04 | 30 |
| Brazil | Q Z | | | | | | | | |
| Orange | ® © 200 € | Px 1 gas. x m CH/plant 2 x 9 200 kg æs./ha | Son drech followed | 0 | 3 | 5 | 0.19-0.55 | 0.66 | 28 |
| | SL 200 | .20x 0.20x xg a.s. Ma | Foliar spray | 0 | 2 | 5 | 0.14-0.45 | 0.45 | 0 |

Highest residue levels were observed in the NAFTA trials after two foliar spray application of BYI 02960 SL 2000. In general, low column spraying resulted in slightly higher residues. However, the residue volues corresponding to You volume spray and normal spray were from similar populations (Whitney-Mann-Wilcoxxx test) as well as the residues from the different crops of the crop group.

The total residue levels of BYI 02960 did not always peak at the intended PHI, however the total residue either declined of eveled off by the end of the sampling period, which covered in maximum 21 days in the NAFTA trials or 28 days in the Brazilian trials.

The residue data provided for citrus are suitable for regulatory purposes.



IIA 6.3.2.2 Tree nuts

Residue data from NORTH AMERICA (Crop Group 14)

BYI 02960 is to be registered in USA and Canada for use as a foliar treatment in on tree nuts. The use pattern in North America is summarized in Table 6.3.2.2-1.

| Report: | KIIA 6.3.2.2/01; and 4, 2012; 2012 |
|-------------|--|
| Title: | BYI 02960 200 SL - Magnitude of the Residue in Tree Suts (Crop Group 14) |
| Report No & | RARVY016, dated June 27, 2012 |
| Document No | M-433350-01-1 |
| Guidelines: | US: EPA Residue Chemistry Test Guidelines OPPTS 860.1500, Crop Fold Trids Canada: PMRA DACO 7.4.1, Supervised Residue Trid Study |
| | Canada: PMRA DACO 7.4.1, Supervised Residue Trial Studio PMRA DACO 7.4.2 Residue Declare |
| | PMRA DACO 7.4.2 Residue Deckine OECD: Guidelines for the Testing of Chemicals 509, Crop Field Trial, Adopted Sept. 2009. |
| | OECD: Guidelines for the Testing of Chemicals 609, Crop Field Trial, |
| | Adopted Sept. 2009: A STATE OF THE SECOND SE |
| GLP | Yes O Y Y Y Y Y Y |

A total of ten trials were conducted in tree nuts for the intended GAPs (5 trials in amond and 5 trials in pecan). The use pattern - corresponding to the intended GAP as described below.

Table 6.3.2.2-1: Target Use Patterns for the Application of BYI 62960 on Tree Nuts

| | | | | Rate/Appli | cation | | | 0 | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ | _ | ray ume |
|---------------------|---------|-------|----------------------|------------------|----------|----------|---------------------------|-------------|--|-------|------------|
| | _(| Produ | wlated ≽ ct (FP)√ | Active Su | fbstance | | Sarget App Interval | , Target | Adju- vant/Ad | | |
| | No | Ž | | Nama |) lb ≪ | , do | Interval | PHI | | | |
| Substance | Apps | m46/A | fľøz/A | a.s., | a.s.A | a.s:Ara | (Days) | (Pays) | (%) | GPA | LPHA |
| BYI 02960 200 SI | <i></i> | 1025 | √14.Q | BYI @ 960 | | 4//18 | © 14~ | , 7 | 0.25 | 10–50 | 93–467 |
| | | . 0 | | | \ |) | √ | | | 200 | 1070 |
| BYI 02960 | 2 | 1023 | 14.0 | BVI 02960 | 0.183 | 205 | Ž | 7 | 0.25 | 200- | 1870– |
| 200 SL | | \$ | ₹.0 | D 1 02 9 0 9 | 0.10, | 284 | 23 T | , | 0.23 | 300 | 2805 |

Ten field trials were conducted to measure the magnitude of BYI 02960 residues in/on almond hulls and almond and pecan number (representative test systems for NAFTA crop group 14; Tree nuts) following two airblast applications of BYI 02960 209 SL. Since almond hulls (as feed item) are not imported into Europe, this dossier will focus on the food items almond and pecan nutmeat. Complete information on the study including the data or almond hulls has been submitted in the Global Joint Review Submission in October 2012

BYI 02960 200 SK is a soluble concentrate formulation containing 200 g BYI 02960/L. The number and location of field trials conform to the guidance given by the EPA (Table 6.3.2.2-2).



Table 6.3.2.2-2: Trial Numbers and Geographical Locations for BYI 02960 in/on Tree Nuts

| NAFTA Growing Region | Submitted ^a | Requested | * |
|--|------------------------|-------------|----------|
| 1 | | Requested • | TO TO |
| 1A | | | 0 |
| 2 | 2 | | |
| 3 | | | ÖQ J |
| 4 | 1 0 | | d |
| 5 | | | 4 |
| 5 A | | | 1 |
| 5B | | | |
| 5B 6 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 | E OF ST | (1 .4) | |
| 7 | | | |
| 7 7A 8 9 | | | |
| 8 0 0 7 | | | |
| 9 0 0 0 | | | |
| 100 | | 5 | |
| 11 2 2 67 | \$ 08 0 \$ 29 29 | Q Q | |
| 12 | | | |
| 12 A D D D D D D D D D D D D D D D D D D | | | |
| 5 19 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 | | | |
| Total O | 10 | 10 | |
| | ~ ~~ ~~ | | |

a Four of the ten trials were decline trials (two in Region) and two in Region 10). The additional decline trials were performed to meet EU region remember.

Material and Methods

Two application forms were tested, two drute or two concentrated foliar airblast applications. Individual application rates ranged from 0.179 to 0.188 lb BYI 02960/A/application (0.201 to 0.211 kg BYI 02960/ha/application). Seasonal application of the ranged from 0.360 to 0.375 lb BYI 02960/A (0.403 to 0.421 kg BYI 02960/ha/All applications were made at growth stages ranging from BBCH 78 to 97 (BBCH 78: 80% of fruits have reached final size; BBCH 97: plant resting or dormant). The interval between the applications was 13 to 15 days. For sites with concentrated spray applications, spray volumes ranged from 10 to 52 GPA (1791 to 2391 L/ha).

All applications were made using ground-based equipment. The adjuvant Dyne-Amic, a typical non-ionic surfactant, was used in all of the applications at 0.25% (v/v).

Trial Site conditions, including soil characteristics are summarized in Table 6.3.2.2-3. Study use patterns are summarized in Table 6.3.2.2-4.



Table 6.3.2.2-3: Trial Site Conditions for BYI 02960 on Tree Nuts

| | | Soil (| Charac | teristics | a | Meteorolo | ogical Data ^b | ð |
|-------------------------|---|------------|---|-------------------|---|----------------|---|---|
| Trial Identification | Trial Location (City, Country/State, Year) | Туре | OM (%) | рH | CEC (meq/100g soil) | % Total | Temp. Range | |
| RV204-10DA Almond | , CA, 2010 | Sandy Loam | 1.01 | 5.9 | 7.3 | 0 | \$3-96 \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | |
| RV205-10DA Almond | , CA, 2010 | Loam | 2:4 20 | 7.9 | 3 3.9 | | 57090 | |
| RV206-10HA Almond | , CA, 2010 | Sandy Loam | 0.9 | 6.8 | | | \$ 59-8 8 | |
| RV207-10HA Almond | , CA, | Sandy Loam | \$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | \$8.3 \$1.3 | 3130 | | 5 7–93 | |
| RV208-10HA Almond | , CA, 2010 | Sandy Loam | 078 | 6.0 | 7.5 | | 55001 | |
| RV209-10DA Pecan | , GA, 2010 | Sandy Boam | 2.4 | 6.2 | | 3.85 | 31-70 | |
| RV210-10DA Pecan | , GA, 20 (9) | Sandy Loam | % :27 | (C) (C) (C) | \$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | 3.52 × | 31–70 | |
| RV211-10HA Pecan | 2010, LA, | Dam J | 2.2 | 5.9 | \$8.4 \$\tag{3} | 2 30 | 47–85 | |
| RV212-10HA Pecan | 72010 72010 | Clay Loam | 2.2 | 8.2 C | 38.7 | 0.07 | 57–84 | |
| RV213-10HA Pecan | OK 2010 | Sandy keam | | \$7 _\$7 | 7. \$ \$ | 2.73 | 38–77 | |

Abbreviations used: WOM = percent organic matter; CFC = cation exchange capacity.

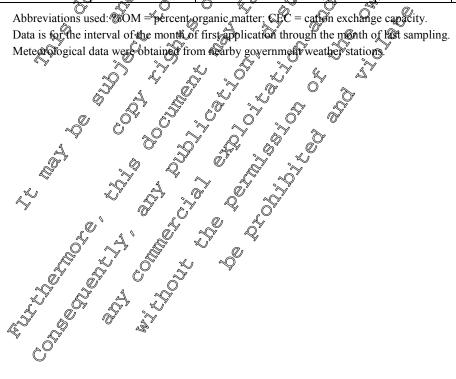




Table 6.3.2.2-4: Study Use Pattern for BYI 02960 200 SL on Tree Nuts

| 1 able 0.3.2.2- | 1. 5.44 | y 030 1 allo | 111 101 1 | 0 1 1 0 2 9 0 0 2 | .00 SL | 7 011 110 | Civats | | | , |
|----------------------|---|-------------------------------|-----------|-------------------------|-------------------------------|--|--------------------------------------|-----------------------------|----------------------|--|
| | | (uo | | I | Ap | plicatio | n | ı | ı | w° |
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Method | Timing/@rowth Stage (BBCH) | Spray Volume GPA (L/ha) | Bate lb a AAA (kg a.s./ha) | Astreatment Interval (days) | Cotal Race lb a.s./A | Tank Wax Adjurants |
| Almond | | | | | 0 | | | <i>D</i> ' | | |
| RV204-10DA | CA, Region 10, 2010 | BYI 02960 200 SL | | Concentrate Airblast | | 45 4 (42-7) (42-7) (42-7) (42-7) | 0.183 (0.204) 0.183 (0.205) | NAS | 0.365 | Dyne-Amic Dyne-Amic 0.25% v/v |
| RV204-10DA | CA, Region 10, 2010 | | | Dilute Airblast | 7.84 | | , @ | NÃO | 0.375 | Dyne-Amic 0.25% v/v Dyne-Amic 0.25% v/v |
| RV205-10DA | | | TRIC | Concentrate Airthorst | 89 | | 0.184 (0.206) | NA 14 | 0.366 (0.410) | Dyne-Amic 0.25% v/v Dyne-Amic 0.25% v/v |
| RV205-10DA | | | TRTD | Dilme Airiblast | 89 | 200 (1869) 200 (1871) | 0.182 (0.204) 0.182 (0.204) | NA 14 | 0.365 (0.409) | Dyne-Amic 0.25% v/v Dyne-Amic 0.25% v/v |
| RV206-10HA | , , , , , , , , , , , , , , , , , , , | B 1 02960 200 & L | TRTC | Concentrate Airblast | 85 89 | 41 (379) 41 (382) | 0.181 (0.203) 0.183 (0.205) | NA 14 | 0.364 (0.408) | Dyne-Amic 0.25% v/v Dyne-Amic 0.25% v/v |



Table 6.3.2.2-4 (cont'd): Study Use Pattern for BYI 02960 200 SL on Tree Nuts

| Table 0.3.2.2-4 (Coll) | | | 111 101 15 11 0 | | | on 1100 | 11465 | | , |
|---|---|-----------|------------------------------------|--|----------------------------|--|-----------------------------|--|--|
| | (uo | | T | Aŗ | plicati | on | ı | T | , v |
| | NAFLA Neglou, and Tear) End-use Product (Formulation) | Plot Name | Method | Timing Qrowth Stage (BBCH) | Spray Volume GPA (L/ha) | Bate lb a AAA (kg a.s./ha) | Refreatment Interval (days) | Total Race lb a.s./A (kg a.s./ha) 🗟 💍 | Tank Mix Adjukants |
| RV206-10HA CA, Region 2010 | 10, | TRTD | Dillete Acirblast | | (2185) | (0.201) (0.183) (0.205) | 514 | 0.362 × (0.406) | Dyne Amic 0.25% v/v Dyne Amic 0.25% v/v |
| RV207-10HA CA, Region 2010 | | | Concentrate Afriblast Didite | 85 % % 85 | 38 (353) 38 (353) | \$7183 \$(0.20 5) \$7183 \$(0.20 5) | 714 714 | 0.411) | Dyne-Amic 0.25% v/v Dyne-Amic 0.25% v/v |
| Pecan RV208-10HA CA Region 2010 RV208-10HA CA Region 2010 | | TRT | Airblast | \$85 \$85 \$85 | () | ©184 (0.2063) ©184 (0.206) | NA 14 | 0.367 (0.411) | Dyne-Amic 0.25% v/v Dyne-Amic 0.25% v/v |
| Pecan | | | | \ \ ^ | <u> </u> | | 1 | | |
| RV208-10HA CA, Region 2010 | BYI 02960 200 SL | TRITC | Coffcentrate Airblest | 79\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | 45 (417) | 0.179 (0.201) | NA | 0.360 (0.403) | Dyne-Amic 0.25% v/v |
| | | | | 85 | 45 (420) | 0.181 (0.202) | 14 | | Dyne-Amic 0.25% v/v |
| RV208-10HA CASE | | RTD | Ö Dilute Airblast | 79 | 253 (2364) | | NA | 0.371 (0.415) | Dyne-Amic 0.25% v/v |
| | | | | 85 | 256 (2391) | 0.186 (0.209) | 14 | | Dyne-Amic 0.25% v/v |

Study Use Pattern for BYI 02960 200 SL on Tree Nuts Table 6.3.2.2-4 (cont'd):

| 1 4010 0.3.2.2 | (======) | Diddy Ost | | | | | | | | |
|----------------------|---|-------------------------------|-----------|-------------------------|----------------------------|--------------------------------|--|-----------------------------|------------------------------------|--|
| | | ion) | | T | Ap | plication | on | ı | Τ | w° |
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Method | Timing Qrowth Stage (BBCH) | Spray Volume GPA (L/ha) | Search and the search | Retreatment Interval (days) | Total Rate b a.s./A (kg a.s./ha) ~ | Tank Mix Adjuxants |
| RV209-10DA | , GA, Region 2, 2010 | BYI 02960 200 SL | TRTC | Concentrate Kirblast | 7 89 J | 22 (202) (21 (197) | (0.2054) (0.183 (0.205) | 14 | | Dyne Amic 0.23% v/v |
| RV209-10DA | GA, Region 2, 2010 | | | | ~ ~ | ~ | 0.186 (0.208) 0.189 (0.205) | NA O | ©0.369° (0.443) | Dyne-Amic 0.25% v/v Dyne-Amic 0.25% v/v |
| RV210-10DA | Š | BYI 02960 200 SL | | | 795 5 7 89 | (202) | 0.183 (0.205) 0.183 (0.205) | NA 14 | 0.366 (0.410) | Dyne-Amic 0.25% v/v Dyne-Amic 0.25% v/v |
| RV210-10DA | Region 2, 2010 | | ORTD | Airbast | 79 7 89 | 249 (2324) 247 (2308) | 0.186 (0.208) 0.183 (0.205) | NA 14 | 0.369 (0.413) | Dyne-Amic 0.25% v/v Dyne-Amic 0.25% v/v |
| RV211-10HA | Region 4. (2010 | BY 02960 200 SL | TRTC | ©oncentrate Airblast | 95 97 | 27 (248) 32 (301) | 0.187 (0.210) 0.185 (0.207) | NA 14 | 0.372 (0.417) | Dyne-Amic 0.25% v/v Dyne-Amic 0.25% v/v |

Tier 2, IIA, Sec. 4, Point 6: Flupyradifurone (BYI 02960)

Study Use Pattern for BYI 02960 200 SL on Tree Nuts Table 6.3.2.2-4 (cont'd):

| | + (cont a). | | | 11101 1110 | | T | | | | |
|----------------------|---|-------------------------------|-----------|--|--|---------------------------------|--------------------------------------|---|-------------------------|--|
| | | ion) | | | Ap | plication | on | _ | | <u>"</u> |
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Method | Timing/@rowth Stage (BBCH) | Spray Volume GPA (L/ha) | Bate lb as A. (kg a.s./ha) | Retreatment Interval (days) | Total Rate lb a.s./A | Tank Mix Adjukants |
| RV211-10HA | , LA, Region 4, 2010 | | TRTD | Diffete Activation of the second of the seco | 95 97 97 | 219 (2048) (192 (1791) | 186 (0.209) 187 (0.210) | NA NA M4 | 0.374 × (0.419) | Dyne Smic 0.25% v/v Dyne Smic 0.25% v/v |
| RV212-10HA | TX, Region 6, 2010 | BYI 02966 200 SI | | Concentrate Amblast | ************************************** | 381) (419) | \$186 \$0.208 \$182 \$1.204 | NA NA NA NA NA NA NA NA NA NA NA NA NA N | \$367 \$0.412} \$ | Dyne-Amic 0.25% v/v Dyne-Amic 0.25% v/v |
| RV212-10HA | TXC Region 6. (2010 | | FRTD | | 87 \$7 | 108 (1851) 248 (2041) | | 13 | 0.362 (0.406) | Dyne-Amic 0.25% v/v Dyne-Amic 0.25% v/v |
| RV213-FOTA | Region 8, | 200 SI | | Concentrate Airolast | ^ | 50 (478) 52 (489) | 0.188 (0.211) 0.187 (0.209) | NA 15 | 0.375 (0.421) | Dyne-Amic 0.25% v/v Dyne-Amic 0.25% v/v |
| RV213-10HA | , OK, @ 2014 | | TRED | Dirite Dirblast | 85 | 228 (2133) | 0.183 (0.205) | NA | 0.366 (0.410) | Dyne-Amic 0.25% v/v |
| | | | | | 89 | 238 (2225) | 0.183 (0.205) | 15 | | Dyne-Amic 0.25% v/v |

In the harvest trials, duplicate composite samples of almonds and pecans were collected from the treated plots at a pre-harvest interval (PHI) of 7 days. In the four decline trials, duplicate composite samples of almonds and pecans were collected from the treated plots at 0, 3, 7, 14, and 21 days after the last treatment. Single composite samples of almonds and pecans were also collected from the control plots on the same day the target 7-day samples were collected from the ceated plots. The almonds and pecans were shelled to produce the commodity of nutmeat (without shells).

The residue(s) of BYI 02960, DFA, and DFEAF were quantitated by HPLC-MS/MS using stable isotopically labelled internal standards. The individual analyte residues were summed to see a total BYI 02960 residue. Residue measurements below the analyte LOQ were summed into the total BYI 02960 residue value as the analyte LOQ value.

Findings

Concurrent recoveries of BYI 02960, DFA, and DFEAF were measured with each set of samples to verify method performance. All recoveries were corrected for any interference of corresponding controls. The overall mean of the recoveries for each matrix was within the acceptable range of 70 to 110%, and the standard deviation values were \$20\% Pable 63.2.25).

Table 6.3.2.2-5: Summary of Recoveries of BYI 02960 from Tree Nuts

| Crop Matrix | Anafvte Spike Size Recoveries (%) | Mean Recovery (%) a | Std Dev (%) |
|---------------------|--|---------------------------|-------------------|
| | BYI 9960 (0.010) (1.07, 89, 36, 105, 88, 72, 73, 113, 80, 74, 81, 75, 84, 81, 75, 84, 81, 75, 84, 81, 81, 81, 81, 81, 81, 81, 81, 81, 81 | 86 | 15 |
| | 0,100 12 7 87,81,09,93,84,85,84,91, | 88 | 7 |
| Nutroeat without | 12 70, 72, 87, 82, 71, 77, 81, 76, 71, 84, 71, 73 | 75 | 5 |
| shell | 76, 96, 73, 74, 74, 78, 76, 72, 80, 71, 79, 81 | 77 | 7 |
| | DFEAF 0.000 12 90,016, 88, 111, 104, 83, 107, 86, 85, 83, 92, 85 90, 111, 82, 101, 94, 103, 93, 79. | 94 | 12 |
| | 0.100 90, 111, 82, 101, 94, 103, 93, 79, 99, 97, 94, 100 | 95 | 9 |

a Mean Recovery = mathematical average of athrecoveries.

The freezer storage stability study indicates that BYI 02960 residues were stable in coffee beans and soybean seeds, as topresentative crops of the commodity group (high oil content), during frozen storage for at least 18 months prior to analysis. The maximum storage period of frozen samples in this study for BYI 02960 was 497 days. A summary of the storage conditions are shown in Table 6.3.2.2-

Table 6.3.2.2-6: Summary of Storage Conditions for Tree Nuts

| Residue Component(s) | Matrix (RAC) | Maximum Average Storage Temperature (°C) ^a | Actual Storage Duration Months (days) | Interval of Demonstrated Storage Stability of month adays) |
|-------------------------|-----------------|---|---|---|
| BYI 02960 | Almond Nutmeat | < -17 | 16 (491) | 18 7 |
| B 11 02900 | Pecan Nutmeat | < -17 | (\$2 (\$364) | \$558) \$ |
| DFA | Almond Nutmeat | 2 -17 | 16 C | \$\frac{180}{558}\] |
| DrA | Pecan Nutmeat | | (364) | (558) |
| DEFAE | Almond Nutmeat | , | \$\frac{1}{4}\text{491}\text{1} | (558) |
| DFEAF | Pecan Nutmea | \$\frac{17}{2}\frac | 0 12 0 0 (364) \$ | 186 (\$58) |

The maximum average storage temperature is from the time of ample extraction. While preparing for sample analysis, the complex were maintained in a laboratory freezer.

The storage duration is the time from field sampling through the last sample extraction.

²⁰¹² Storage Rability of BYL 2960, Aufuoroacotic acid, and The total BYI 02960 residue data for tree nuts following two foliar applications of BYI 02960 200 SL are shown in Table 6.3.2.2-7. difluoroethyl-amino-furance in plant matrices. Bayer Crop Science Report No RARY 10046, amended version including



Table 6.3.2.2-7: Total BYI 02960 Residue Data from Tree Nuts after Two Foliar Application(s) of BYI 02960 SL

| | Г | 3Y1 02960 S | L | | | | | | | • | |
|----------------------|---|--------------|-----------|-----------|---|-------------------|---|--------------------------------|-----------------|--|--|
| Trial Identification | Location (City, State, Region, and Year) | Crop Variety | Commodity | Plot Name | Toral Rate Ib a.s./A@g a.s./ha) | Sampling Interval | 8YI 42460 Resi ang/kg) * & | DFA Residue (mg/kg, equiv./kg) | | Total BYI 02960 Residue? | |
| Almond N | Nutmeat | | | F P | , . | | N N | | | 2 | |
| RV204- 10DA | , CA, Region 10, 2010 | | | | \$365 \$0.409 \$7 \$7 \$7 \$7 \$7 | 14 21 0 | 0.010 0.010 0.010 0.010 0.010 0.010 0.010 | <0.050 <0.050 <0.050 | <0.010 0.010 | 0.070 0.070 0.070 0.070 0.070 0.070 0.070 0.070 0.093 ^d 0.075 Avg: 0.084 ^e 0.12 0.11 Avg: 0.12 <0.070 <0.070 Avg: <0.070 Avg: <0.070 Avg: <0.070 <0.070 Avg: <0.070 <0.070 Avg: <0.070 | |
| | | | | | | | | Continue | d on next | t page | |

Table 6.3.2.2-7 (cont'd) Total BYI 02960 Residue Data from Tree Nuts after Two Foliar Application(s) of BYI 02960 SL

| | | | | | | | | | | 0 |
|----------------------|---|--|----------------------------------|----------------------|---|-------------------|--|---|--------------------------------------|---|
| Trial Identification | Location (City, State, Region, and Year) | Crop Variety | Commodity | Plot Name | Total Rate Ib a.s./A@g a.s./ha) | Sampling Interval | BY1 62960 Residue | DEA Residue (Mg.) (mg. 28. equiv./kg) | DIOAF Residue (mg assequiv./kg) | Total BYI 02960 Residue? |
| RV205- 10DA | , CA, Region 10, 2010 | | | TRAID | \$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | | 0.010 0.010 0.010 0.010 0.010 0.010 | \$0.050 \$0.050 \$0.050 \$0.050 \$0.050 \$0.050 \$0.050 | <0.0010 <0.000 <0.010 | <pre><0.070 Avg: <0.070 Avg: <0.070 Avg: <0.070 <0.070 <0.070 Avg: <0.070 <0.070 Avg: <0.070 <0.070 Avg: <0.070 <0.070 Avg: <0.070 <0.070 Avg: <0.070 <0.070 Avg: <0.070 <0.070 Avg: <0.070 <0.070 Avg: <0.070</pre> |
| 4 | CA, Recon 10,0 | Stonora Control of the Control of th | Nutment wout Shell | JRTC JRTC TRTD | 0.364 (0.468) 0.362 (0.406) | 7 | <0.010 0.015 0.015 0.014 | <0.050 <0.050 <0.050 <0.050 <0.050 | <0.010 <0.010 <0.010 <0.010 | <0.070 0.075 Avg: 0.072 0.075 ^f 0.074 Avg: 0.075 ^g |
| RV207- 10HA | CA, Vegion 0, 200 | Monterey | Almond Nutment w/out Shell | TRTC | 0.366 (0.411) | 7 | <0.010 <0.010 | <0.050 <0.050 Continue | <0.010 <0.010 d on next | <0.070 <0.070 Avg: <0.070 |

Tier 2, IIA, Sec. 4, Point 6: Flupyradifurone (BYI 02960)

Table 6.3.2.2-7 (cont'd) Total BYI 02960 Residue Data from Tree Nuts after Two Foliar Application(s) of BYI 02960 SL

| | | rr - | ation(s) or | | | | | | | <u> </u> |
|----------------------------|--|--------------|----------------------------------|---------------|------------------------------------|--|----------------------------------|--------------------------------|------------------------------------|--|
| Trial Identification | Location (City, State, Region, and Year) | Crop Variety | Commodity | Plot Name | Toral Rate Ib a.s./M@g a.s./ha) | Sampling Interval | BYI 42460 Resi | DFA Residue (mg/ks, equiv./kg) | DABAF Residue (mg atoequiv./kg) | Total BY1 02960 Residue |
| RV207- 10HA (cont'd) | CA, Region 10, 2010 | Monterey | Almond Nutmeat w/out Shell | TRAN | 0.367 (0.411) | | <0010 >0.0100 | © .050° 7 < 0.050° | <0.040 <0.910 | <0.070 \$0.070 Avg: <0.070 |
| RV208- 10HA | , CA, Region 10, 2010 | Padre | Almond Nutmeat w/cht/Shell | TRÎC | \$360 \$\text{\$0.403}\$ | \$7 7 7 8 | 20.010 (20.010 (20.010 (| <0.030 J | <0.010 | Q:070 0.070 Avg: <0.070 |
| | | | | | 9.371 (0.41 5) | 7 7 | <0.010 <0.010 | <0.050 <0.050 \$0.050 | <0.010 <0.010 | <0.070 <0.070 Avg: <0.070 |
| Pecan Nu | tmeat | | , Ø (| <i>₹</i> | | ' & | Cr. | ~ Q | | |
| RV209- 10DA | Region 2 | Summer . | Pecan | TRIC | 0.366 (0.411) | 8 | ©011 <0.010 © | <0.050 <0.050 | <0.010 <0.010 | 0.071 <0.070 Avg: 0.071 |
| Ž, | Region 2018 2018 2018 2018 2018 2018 2018 2018 | | | | | ************************************** | \$0.010 \$<0.010 | <0.050 <0.050 | <0.010 <0.010 | <0.070 <0.070 Avg: <0.070 |
| | | | | | | 7 | <0.010 | <0.050 <0.050 | <0.010 | <0.070 <0.070 Avg: <0.070 |
| | | | | | S S | 21 | <0.010 <0.010 <0.010 | <0.050 <0.050 <0.050 | <0.010 <0.010 <0.010 | <0.070 <0.070 Avg: <0.070 <0.070 |
| | | | | ,©′ ≱/ | 0.260 | 21 | <0.010 | <0.050 | <0.010 | <0.070 Avg: <0.070 |
| | | | v | IKID | (0.413) | 7 | 0.013 <0.010 | <0.050 <0.050 | <0.010 <0.010 | 0.073 ^h <0.070 Avg: 0.071 ⁱ |

Tier 2, IIA, Sec. 4, Point 6: Flupyradifurone (BYI 02960)

Table 6.3.2.2-7 (cont'd) Total BYI 02960 Residue Data from Tree Nuts after Two Foliar Application(s) of BYI 02960 SL

| - | | търте | | | | | | | | | _ |
|----------------------|---|--------------|--|------------------|---|---|----------------------------------|-------------------------------|------------------------------------|-----------------------------------|---|
| Trial Identification | Location (City, State, Region, and Year) | Crop Variety | Commodity | Plot Name | Tokal Rate Ib a.s./A@g a.s./ha) | Sampling Interval (days after last treatment) a | BYI 62960 Residue | DEA Residue (mgas. equiv./kg) | DIOAF Residue (mg a Soquiv./kg) | Total BVI 02% Residui | |
| RV210- | , GA, | Sumner | Pecan | TRAC | 0.366 (0.410) | ~0, | 00048 | ©0.050 | Y | 0. Ø 1 | |
| 10DA | Region 2, | | Nutmeat | & , [*] | (0.410) | | JØ.015 7 | r <0.0 50 | <0.00±0 <0.0010 | | |
| | 2010 | | w/out Shell | O 4 | | | | F | (A | Avg: 0.091° | |
| | | | | . 0 | | . 3 | 0.010 0.010 0.010 0.010 | ©0.050 | <0.000 | <0.03/1 | |
| | | | | | | | \$0.01Q | © 0.050 < 0.050 | <0.000 <0.010 | <0 20 70 20 .070 | |
| | | | | | | | | | | D Avg: | |
| | | | L 0 | | | | 20010 d | 0.050 | <0.6010 | <0.070 <0.070 | |
| | | | q' _b | | | | Q10.010 (| <0.050 <0.050 <0.050 | <0.010 | < 0.070 | |
| | | Ş | | 10 | Ş (Ö | | ¥ 10.010 | | &y | Avg: | |
| | | J' | | | | مال | ~ ~~ | A- | | < 0.070 | |
| | | Ò | | w" | | 14 | 0.010 0.010 | <0.050 | <0.010 | <0.070 | |
| | | | | | ř S | y | ~0.01g | <0.050 | <0.010 | <0.070 Avg: | |
| | d d | | | | | | & | | | <0.070 | |
| | | | | S, | | @21 | , <0.010 | < 0.050 | < 0.010 | < 0.070 | |
| | | | , W | > 3 | y "N | (Q | <0.010 <0.010 <0.010 | < 0.050 | < 0.010 | < 0.070 | |
| | | | | | | A C | ~ · | | | Avg: <0.070 | |
| | | Creek | | TRAD | (0.413) (0.413) (0.417) | 7 | ₩ ₩0.010 ><0.010 | < 0.050 | < 0.010 | < 0.070 | |
| | | | | O'VID | (0.413) | | < 0.010 | < 0.050 | < 0.010 | < 0.070 | |
| | , | | | | | ~ O | | | | Avg: | |
| DVO11 | | Créek | Pecan Numeat, wout Shell | TOTAL | \$\frac{\(\lambda \)}{\(\alpha \) \(\alpha \) \(\alpha \) | | <0.010 | -0.050 | <0.010 | <0.070 | |
| RV211- 10HA | LA,Q | Creek | Pecan Numeat | TRTC | ©.372 (0.412) | 7 | <0.010 <0.010 | <0.050 <0.050 | <0.010 <0.010 | <0.070 <0.070 | |
| 101111 | Region 4. | , S | wout Shell | | (0.417) | | -0.010 | 10.030 | -0.010 | Avg: | |
| | Region 4, | | | | ^ | | | | | < 0.070 | |
| | 4 | | | T RTD | 20 .374 | 7 | < 0.010 | < 0.050 | < 0.010 | < 0.070 | |
| | | | | | ^J (0.419) | | < 0.010 | < 0.050 | < 0.010 | <0.070 | |
| | ~~~ | * 4 | | | | | | | | Avg: <0.070 | |
| RV212- | , | Choeyenne, | Pecan Numeat | , ØŘTC | 0.367 | 7 | < 0.010 | < 0.050 | < 0.010 | < 0.070 | |
| 10HA | T.W. | | Normeat 6 | ¥ | (0.412) | | < 0.010 | < 0.050 | < 0.010 | < 0.070 | |
| | Region 6 | | w Shell | | | | | | | Avg: | |
| | TW, Región 6 | Cheyenne, | ~ ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ | TRTD | 0.362 | 7 | < 0.010 | < 0.050 | < 0.010 | <0.070 <0.070 | |
| ~(| | | | INID | (0.406) | , | < 0.010 | < 0.050 | < 0.010 | < 0.070 | |
| | | | | | | | | | | Avg: | |
| | | | | | | | | | | < 0.070 | |
| ~~~ | T. | ~ | | | | | | <i>a</i> | 1 | | |

Table 6.3.2.2-7 (cont'd) Total BYI 02960 Residue Data from Tree Nuts after Two Foliar Application(s) of BYI 02960 SL

| Trial Identification | Location (City, State, Region, and Year) | Crop Variety | Commodity | Plot Name | Total Rate Ib a.s./A (Rg a.s./ha) | Sampling Interval | g (C) | DEA Residue (mg bs. equiv./kg) | DKOAF Residue (mg a Sequiv./kg) | 71 02% R | |
|----------------------|---|----------------------|---------------------------------|-----------|--------------------------------------|-------------------|--|--|------------------------------------|---|--|
| RV213- 10HA | , OK, Region 8, 2010 | Kiowa and Washita | Pecan Nutmeat w/out Shell | TRAD | 0.375 (0.421) 0.366 0.410) | | \$0.010° \$0.010° \$0.010° \$0.010° | \$0.050° | <0.640° | <0.070 Avg: <0.070 Q70 Q70 0.070 Avg: <0.070 | |

- Sampling interval is the interval between last application and the sampling date.
- Total BYI 02960 residue is the sun of BYF 02960, DFA, and DFEA/Cresidues in parent equivalents. Residue measurements below the analyte TOQ were summed into the total BYI 02900 resides value as the analyte LOQ value. These totals represent the upper limit of what the residue levels fought be.
- Sample analyzed twice; average value reported here
- d Maximum residue found in almond nutment from the TRTC flot.
- Maximum residue found in almond normeat from the TRTD plot.

 HAFT residue found in almond nurificat from the TRTD plot. f
- HAFT residue formed in almond nutmeat from the TRYD plots
- TRTC = treated plot receiving a concentrate airbit at application
 TRTD = treated plot receiving a dilute airbit as tapping and the treated plot receiving a dilute airbit are the treated plot receiving a dilute airbit and the treated plot receiving a dilute airbit are the treated plot receiving a dilute airbit are the treated plot receiving a dilute airbit are the treated plot receiving a dilute airbit are the treated plot receiving a dilute airbit are the treated plot are the treated plot airbit are the treated airbit are the treated airbit are the treated airbit are the treated airbit are the treated airbit are the treated airbit are the treated airbit are the treated airbit are the treated airbit are the treated airbit are the treated airbit are the treated Maximum residue found in pecan nutment from the TRTD plot.

Conclusion

Ten field trials were conducted to measure the magnitude of total BYI 02960 residues in/on almond The total BYI 02960 residue data for tree nuts following foliar applications are summarized in Table 6.3.2.2-8.

Table 6.3.2.2-8: Summary of Residue Data for Total BYI 02960 from Tree Nuts

| | | 4 | | | - | Fotal BY | I 02960 R | esidue L | evels (pp | |
|-------------------|-----------|---|------------|-----------------|-----------------------|---------------|------------------|----------|---------------------|----------|
| Commodity | Plot Name | Total Application Rate lb a.s., (kg a.s./ha) | PHI (days) | u | Min at PHI | Max at PHI | Max after PHI | HAOT 2 | Median ³ | Mean Wh |
| Almond Nutmeat | TRTC | 0.360 to 0.366 (0.403 to 0.411) | 7 | 5 | <0.070 | 0.093 | 0.12 | 0.084 | <0.070 | |
| Almond Nutmeat | TRTD | 0.362 to 0.375 (0.406 to 0.421) | 7 | 5 | <0.070 | 0.075 | NA5 | 0.075 | | |
| Pecan Nutmeat | TRTC | 0.366 to 0.375 (0.410 to 0.421) | 7 | 5 | 2 0.070 | <0.076 | a i | <0.070 | ₹0 .070 | |
| Pecan Nutmeat | TRTD | 0.362 to 0.374 (0.406 to 0.419) | 7 | (5 ₁ | / <0. 9 ,70 | 3 73 | NA ⁵ | 0.07 | <0.1970 | <0.00095 |

Data from the decline trial samples collected at intervals other than 7-day PHI are not included in this table

HAFT = Highest Average Field Trial.

calculated on the basis of residue values at the PHI.

Sampling day showing highest residue

Not applicable, no decline trials were conducted.

TRTC = treated plot receiving a concentrate airplast application.

TRTD = treated plot receiving a dilute airblast application.

Total BYI 02960 residues in almond and pecan nutrical were generally below the LOQ. Samples collected from the form decline trial indicated an incline of residues in put ment in only one trial in collected from the form decline trials indicated an orcline of residues in futment in only one trial in almonds where the highest residue was detected 14 days after the last application. However, the residues decline to < 0.07 mg/kg within the pext seven days.

The total BXI 02960 residues in the representative commodities for Crop Group 14 (Tree Nuts; almond and pecan) were within a factor of 5 of each other and therefore, within the EPA guidelines The residue data provided for see nuce are suitable for regulatory purposes. for the establishment of a group tolerance for Crop Group 14.



IIA 6.3.2.3 Pome fruit

Residue data from NORTH AMERICA (Crop Group 11)

BYI 02960 is to be registered in USA and Canada for use as a foliar treatment in on pome fruits. The use patterns in North America are summarized in Table 6.3.2.3-1.

A total of twenty-three trials were conducted in apple for each of the intended GAPs. The studies are described below.

Table 6.3.2.3-1: Target Use Patterns for the Application of BY 202960 on Poine Fruits

| | | Form | Target nulated | t Rate/Appli | cation | Ø | | | Spray | Volutorie 4 |
|---------------------|--------|-------|-------------------|--------------|--------------------|----------------|----------------|--------|---------------|-------------|
| | | - | ict (FP) | Active Su | . "// | es(a.s) | Target App. | Target | | |
| Test | No. of | | | Name of⊌ | " IP _S | kg | Interval | #RHI | | I all |
| Substance | Apps | mL/ha | fl oz/A | a.s | as/A | a s/ ha | (Days) | (Days) | y GPA | APHA |
| BYI 02960 200 SL | 2 | 1025 | 14.0 | BY 202960 | 0.183 | 0.205 | 100 | | 3 0-50 | 94-469 |
| BYI 02960 200 SL | 2 | 1025 | 14.0 | BYĮ 02960 | 00 / 83 | ©205 | ©10 € | 140 | 150-900 | 1408-2816 |

GPA = gallons per acre LPHA = liter per hectar

| Report | KIIA (3.3.2.3.91; V.; 2022 & J |
|-------------|--|
| Title | BY 202960 200 SI Magnifude of the Residue in On Ponte Fruits (Crop Group 11) |
| Report No & | RARVY013, dated June 18, 2010 |
| Document No | |
| Guidelines | US: PA Residue Chemistry Test Guidelines OPPTS 860.1500, Crop Field Trials |
| | Canada: FMRA DACQ 7.4.1 Supervised Residue Trial Study |
| | PMRO DACO 7.4.2 Residue Decline |
| Š | OECD: Guideline for the Testing of Chemicals, 509, Crop Field Trial, |
| | Radopted Sept. 72009 F |
| GLP 🎺 | Yes O Y Y W |

Twenty-three field trial were conducted to measure the magnitude of BYI 02960 residues in/on apple (14 trials) and pear 19 trials following two broadcast foliar spray applications (either diluted or concentrated spray) of BYI 02960 200 St. Apple and pear were chosen as the representative test systems for NAVTA Crop Group 11 Fome fruits. BYI 02960 200 St. is a soluble concentrate formulation containing 200 BYI 02960 L. The number and location of field trials conform to the guidance given by the EFA (Table 6.3.2.3-2).



Table 6.3.2.3-2: Trial Numbers and Geographical Locations for BYI 02960 in/on Pome Fruits

| NAEGA C. D. | Appl | e | Pe | |
|----------------------|---|---|---|------------|
| NAFTA Growing Region | Submitted | Requested | Submitted | Requested |
| 1 | 3 | 3 | 1 & | l 1 🧠 🖈 |
| 2 | 1 | 1 | | |
| 3 | | | | |
| 4 | | Ö | | |
| 5 | 4 | <u>4</u> | © 3 × | |
| 5A | | A. | \$\frac{1}{2}\frac{1}{2 | |
| 5B | | | ~~~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ | |
| 6 | \{\(\) | | | |
| 7 | | | | |
| 7A | | . % . // // | | |
| 8 | | | | |
| 9 | | l , à l'a | | |
| 10 | | | | 2 |
| 11 | \$\\ 4\\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ | | | O 3 |
| 12 | | | | |
| 13 | | | ₩. (JN | |
| Total 5 | | | | |
| Total S | 5 714 D | , | \$ 90 m | 9 |

Material and Methods

Two application forms were restect 2 diluted or 2 concentrated foliar airblast applications. Individual application rates ranged from 0.078 to 0.793 lb BYI 02960/A/application (0.199 to 0.216 kg BYI 02960/ha/application) and total seasonal application rates ranged from 0.359 to 0.383 lb BYI 02960/A/0.403 to 0.430 kg BYI 02960/ha). The interval between the applications was 10 to 11 days. All applications were made at growth stages ranging from BBCH 75 to 87 (BBCH 75: Fruit about half final size; BBCH 8% Fruit ripe for harvest).

All applications were made using ground-based equipment. A typical non-ionic adjuvant (MSO, NIS, COC) was used in all of the applications at $\sqrt{2}$ to 1% (v/v).

Trial Site conditions, including soil characteristics are summarized in Table 6.3.2.3-3. Study use patterns are summarized in Table 6.3.2.3-4.



Table 6.3.2.3-3: Trial Site Conditions for BYI 02960 on Pome Fruits

| Trial | Trial Location | Soil (| Charac | Meteorological Datab | | | |
|-------------------------|-----------------------------------|-----------------|--------------------|----------------------|--|-----------------------------|---|
| Identification; Crop | (City, Country/State, Year) | Туре | OM (%) | pН | CEC (meq/100g soil) | Total Rainfall (in) | Temp Range |
| RV050-11HA Apple | , NY | Sandy Loam | 5.5 | 6.6 | 11.3 | 3.56 | > 56-72 5 42 |
| RV051-11DA Apple | , PA | Loam | 2.0 | ⁹ 5.9 | 1 0 /5 | 21. | 38-78 |
| RV052-11HA Apple | , GA | Loam | <u>4</u> 2.4 | 6.9 | 5.5 | 94.95 | 63-89 |
| RV053-11HA Apple | , MI | Fine Sand | 1,25 | 6.50 | \$\int_{\int}^{\infty} \text{0.0} \times | 1 | 53-84 |
| RV054-11DA Apple | , IL | Silt Loam | 2.2 | 6.8 | 11.5 | 6.70 | \$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ |
| RV055-11HA Apple | , UT | Sandy Loam | ¥9.4 | \$.2 \$.2 | 30.9 | \$\frac{7}{2}.19\frac{7}{5} | ©1-91 |
| RV056-11HA Apple | , CA | Clay Loam | 38 | 7.40 | 26.1 E | | 59-95 |
| RV057-11HA Apple | , LÕ | Silt Koam | 2.04 | 6.5 | | 1.56 | 39-88 |
| RV058-11HA Apple | , QR | Loam | 3 .8 | Ö . è | 11.80 | 5 0.50 | 53-81 |
| RV059-11DA Apple | , ID | Sandy Loam | 1.4 | 7.5, | P2.7 | 0.36 | 50-94 |
| RV060-11HA Apple | NY | Silt Loam | 4.6 | 5.4 | 3.5 | 10.97 | 55-78 |
| RV061-11MA Apple | M | koam | 2.5 | Ø.6 | Ø 9.4 | 6.84 | 52-78 |
| RV062211DA Apple | , Will | Sand J | 069, | 5.4 | 6.3 | 6.12 | 41-70 |
| RV063-11HA Apple | OR. | Login | ₹ 7.4 ₍ | \$ 6.0 | 7.8 | 1.97 | 46-78 |
| RV064-11DA Pear | NYS | Sandy Loam | 3 .1 | 6.3 | 8.4 | 12.46 | 56-82 |
| RV065-11HA ✓ Pear | MI | Jayam 7 | 2.1 | 6.8 | 8.2 | 4.44 | 61-78 |
| RV066-11HA Pear | / SA | Sandy Joan | 3.5 | 7.0 | 16.9 | 0.79 | 56-90 |
| RV067-11EA | CA L | Sandy Loam | 1.0 | 6.5 | 7.2 | 1.79 | 40-79 |
| RV068 11HA | NA NA | Sandy Loam | 1.1 | 7.2 | 12.6 | 0.05 | 48-87 |
| RW069-DDA Pen | , ID | Fine Sandy Loam | 0.75 | 7.9 | 7.0 | 0.36 | 50-94 |



Table 6.3.2.3-3 (cont'd): Trial Site Conditions for BYI 02960 on Pome Fruits

| Trial | Trial Location | Soil (| Charac | teristics | _S a | Meteorological Data | | |
|-------------------------|-----------------------------------|------------|-------------|------------------|---------------------------|---------------------------|--------------|--|
| Identification; Crop | (City, Country/State, Year) | Туре | OM (%) | pН | CEC (meq/100g soil) | Total Rainfall (in) | Temp Range | |
| RV070-11HA Pear | , MI | Sand | 2.3 | 5.6 | 7.1 | 12.99 | 45-83 | |
| RV071-11DA Pear | , MI | Loam | 2.5 | [©] 6.8 | | 16. Þ | 7 49-8® | |
| RV072-11HA Pear | BC, Canada | Sandy Loam | 3 .6 | 7.3 | Q 9.1 ° | 7.10 | 40-85 | |

Pear BC, Canada Sandy Loam 8.6 7.3 29.1 27.10 30-85 Canada Abbreviations used: %OM = percent organic matter; CEC = cation exchange captury.

Data is for the interval of the month of first application through the region of list sampling. Methorological data were obtained from nearby government weather stations. A were to the state of the stat



Table 6.3.2.3-4: Study Use Pattern for BYI 02960 200 SL on Pome Fruits

| | Ą | | Application | | | | | | | |
|----------------------|---|----------------------------------|-------------|----------------------------------|----------------------------|--|--|-------------------------------|---------------------------------|--|
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Method | Timing Growth Stage (BBCH) | Spray Volume GPA | Rate lb ASM (kg a.s./ha) | Retreatment Interval (day® | Total Rate ha.s.A (kg kesha) | Tank Manadjuvatos |
| Apple | | | | Q | | | | \$ (| | |
| RV050-11HA | Region 1 2011 | BYI 02960 200 SL | | Airblago (concentr. agol.) | 765 0 780 780 | 40.09 (3\$5) Q 240.39 (37\$9 | 0.18\$\text{0.18\$}\text{0.18\$}\text{0.208} | | 0.369 (Q.414) | Induce 0.2%v/v Induce 0.2%v/v |
| RV050-11HA | Region 1 | BY6 200 200 XL | | w . | 78 78 | 160 | 0.188 (0.205) (0.1840) (0.206) | NAO 10 | 0.369 (0.411) | Induce @0.2%v/v Induce @0.2%v/v |
| RV051-11DA | | #XI 02960 200 SIC | TRTD | Airblast (concentr. | 879 | 46.91 (\$39) 46.8* (\$38) | 0.182 40.204 0.282 (0.203) | 11 | 0.363 (0.407) | MSO@0.25 %v/v MSO@0.25 %v/v |
| RV051-11DA | Region 1 2010 | BYI 029662200 | | Aprblast (dilute) apply) | 85 | 165 (1543) (164 (1533) | 0.190 (0.213) 0.189 (0.212) | NA 11 | 0.379 (0.425) | MSO@0.25 %v/v MSO@0.25 %v/v |
| RV052-11HA | Region 2 | # YI 05960 200 SL | PRTDE | Airblast (conventr. | 87 | 39.28 (367) 45.67 (427) | 0.183 (0.205) 0.183 (0.205) | NA 10 | 0.366 (0.411) | COC@ 1% v/v COC@ 1% v/v |
| RV052-11HA | Region 2 | BY/1 02960 200 SL | TRTDD | Airblast (dilute appl.) | 81 | 174 (1627) 171 (1599) | 0.183 (0.205) 0.183 (0.205) | NA 10 | 0.365 (0.410) | COC@ 1% v/v COC@ 1% v/v |
| RV053-THA | , MI , MI , 2011 | BYI Ø2960 200 SL | TRTDC | Airblast (concentr. appl.) | 81 | 47.09 (440) | 0.183 (0.205) | NA | 0.364 (0.407) | NIS@ 0.2% v/v |
| | | | | | 85 | 46.67 (436) | 0.181 (0.203) | 10 | | NIS@ 0.2% v/v |



Table 6.3.2.3-4 (cont'd): Study Use Pattern for BYI 02960 200 SL on Pome Fruits

| 1 able 0.3.2.3-4 | Table 6.3.2.3-4 (cont'd): Study Use Pattern for BYI 02960 200 SL on Pome Fruits | | | | | | | | | |
|----------------------|---|----------------------------------|-----------|----------------------------------|----------------------------|-----------------------------------|--------------------------------------|----------------------|-------------------|--|
| | ΓA | | | | A | pplication | n | | | |
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | NPethod (NPethod | Timing/Growth Stage (BBCH) | Spray Volume GPA | S.O. Rafe lb a.s./A | Retreatment Interval | Total Bate lb & A | Tank Mix Adpayants & |
| RV053-11HA | , MI Region 5 2011 | BYI 02960 200 SL | | | 812 | 7 189 ((17 6 0) | 0.189 | 160 | | NS@ 0.2% V/v |
| RV054-11DA | Region 5 | BY,57 02960 200 SL & | | | 85 87 87 | 27.12 2 (254) \$ | 0.183© (0.203) | NAO | | v/v |
| RV054-11DA | | 9 960 240 SI | | Airblast (hite appl.) | 879 879 | \$75 (\$636) 189 (\$767) | 0.183 (0.205) 0.233 (0.205) | 10 | 0.366 (0.410) | COC@ 1% v/v COC@ 1% v/v |
| RV055-11H | Region S | B 9 02960 2006 S SL | | Airblast (concentr. appl.) | 780 5 81 | 51.46 (484) 46.42 (434) | 0.181 (0.202) 0.182 (0.204) | NA 10 | 0.363 (0.406) | Pierce MSO@0.25 %v/v Pierce MSO@0.25 %v/v |
| RV055-11HA | Region 9 0 | | TRYDD | Airblast (dilute appl.) | 78 | 206 (1926) 207 (1935) | 0.179 (0.201) 0.180 (0.202) | NA 10 | 0.359 (0.403) | Pierce MSO@0.25 %v/v Pierce MSO@0.25 %v/v |
| RV056-11HA | Region 10 | ©BYI ©2960 200 | TRTDC | Airblast (concentr. appl.) | 77 | 50.01 (468) | 0.181 (0.203) | NA | 0.364 (0.408) | R-11 NIS@ 0.2% v/v |
| | | | | | 79 | 49.37 (462) | 0.183 (0.205) | 10 | | R-11 NIS@ 0.2% v/v |



Table 6.3.2.3-4 (cont'd): Study Use Pattern for BYI 02960 200 SL on Pome Fruits

| | - | Application On the Process of the Pr | | | | | | | | |
|----------------------|---|--|--------------|----------------------------------|--------------------------------|----------------------------------|--|-----------------------------|--|--|
| | JFT. | | | | A | ppncauc | 711 | | | |
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Method | Timing Growth Stage (BBCH) | Spray Volume GPA | Rate Ib ASM (kg a.s./ha) | Retreatment Interval (days) | Total Rate ha.s.A (kg keha) | Tank White Adjuvator |
| RV056-11HA | Region 10 2011 | BYI 02960 200 SL | TRTDD | Air Plast (dilute appl) | 77 | 224 (2094) 23 (2085) | 0.178 (0.200) 0.187 (0.210) | NA NA 10 | 0.36 8 (0.469) | R-1 NIS@ R-1 NIS@ 0 % v/v |
| RV057-11HA | Region 11 2011 | BYI 0 02960 200 SL | TRTE | Air Stast (concentr. | | 45:78 (428) 45:35 45:35 | 0.186 0.209 | NA DO | \$\\ \(\) (0.419) \\ \(\) (0.419) \\ \(\) | Pierce MSO@0.25 %v/v Pierce MSO@0.25 %v/v |
| RV057-11HA | Region UI 201 | BYI 02960 206 SL | TRTDE | Airbland (dicte appl.) | 75 27 8187 8187 80 | | 0.1285 (0.207) 0.1285 (0.207) | 10 | 0.369 (0.414) | Pierce MSO@0.25 %v/v Pierce MSO@0.25 %v/v |
| RV058-11H49 | OR OR Region 11 . | B 9 02000 2006 5 SL | TAXTDC | Airblast (concentr. appl.) | 780 15 80 7 | 31.00 (290) 30.15 (291) | 0.180 (0.202) 0.182 (0.204) | NA 10 | 0.364 (0.407) | Mor-Act COC@ 0.25% v/v Mor-Act COC@ 0.25% v/v |
| RV058-11HA | OR Region 11 2001 | 1 1 0 | TQTDD | Airblast (dilate appl.) | 78 81 | 175 (1636) 169 (1580) | 0.182 (0.204) 0.183 (0.205) | NA 10 | 0.365 (0.409) | Mor-Act COC@ 0.25% v/v Mor-Act COC@ 0.25% v/v |
| RV059-11DA | , 115 Region 10 2014 | BXI 02900 200 SL | T TDC | Airblast (concentr. appl.) | 79 81 | 41.47 (388) 41.48 (388) | 0.181 (0.203) 0.181 (0.203) | NA 10 | 0.363 (0.407) | Dyne- Amic@ 0.2% v/v Dyne- Amic@ 0.2% v/v |



Table 6.3.2.3-4 (cont'd): Study Use Pattern for BYI 02960 200 SL on Pome Fruits

| | + (cont a). | Study Ose Lattern for B 11 02500 200 SE on Lone Littles | | | | | | | | |
|----------------------|---|---|-----------|----------------------------------|---|----------------------------------|--|--------------------------------|-------------------------------|--|
| | FTA | | | I | A | pplicatio | on | ı | | <i>&</i> & |
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Method | Timing Growth Stage (BBCH) | Spray Volume GPA | Rate lb ASAA (kg a.s./ha) | Retreatment Interval (days) | Total Rate Bas.A (kg kana) | Tank Max Adjuvatos |
| RV059-11DA | Region 11 2011 | BYI 02960 200 SL | TRTDD | Air Plast (dilute appl | 79 | 201 (1879) (1842) | (0.206) | NA NA 10 | 0.366 (0.440) | Devne- Amic@ 0.2% v/v Decae- Amic@ 0.2% v/v |
| RV060-11HA | NY Region 1 2011 | BYI 02960 200 SIQ | TRTDE | Airbast (concentr. appl.) | \$\frac{1}{2}\frac{1}{2 | 56(23 (970) 56(66 (474) | 0.185 0.207 0.186 0.2090 | SA SO O10 | 57.371 (0.4155) (4, | MSO@ 0.25% v/v MSO@ 0.25% v/v |
| RV060-11HA | | BYI 02900 200 FSL & | TRTDD | Airblast (didde appl.) | 81/2 27 85/2 0 | 226 (2413) (245) (2404) | 0,184 (0.207) (0.207) (0.206) | 10 | 0.368 (0.413) | MSO@ 0.25% v/v MSO@ 0.25% v/v |
| RV061-11H4 | Region 5 | B A 02060 200 SL | TRTDC | Airblast (concentr. | 78 \$1 2 | 45.93 (42A) 45.68 (427) | 0.183 (0.205) 0.184 (0.206) | NA 10 | 0.367 (0.412) | Agri-Dex@ 1% v/v Agri-Dex@ 1% v/v |
| RV061-11HA | Region 5 (2011 | BYI 0 02960-200 | TRIOD | Air last Wilute appl W | 81 | 179 (1673) 183 (1711) | 0.181 (0.203) 0.182 (0.204) | NA 10 | 0.364 (0.408) | Agri-Dex@ 1% v/v Agri-Dex@ 1% v/v |
| RV062-11DA | , MI Region 5 20 1 | BY1 02960 2000 SES | TRTDC | Airblast (concentr. appl.) | 77 81 | 34.56 (323) 36.50 (341) | 0.183 (0.206) 0.183 (0.206) | NA 10 | 0.367 (0.411) | Induce @0.2%v/v Induce @0.2%v/v |



Table 6.3.2.3-4 (cont'd): Study Use Pattern for BYI 02960 200 SL on Pome Fruits

| | + (cont a). | T Study OSC | | 01 11 102 | | | | | | |
|----------------------|---|----------------------------------|-----------|----------------------------------|----------------------------|--|---|-------------------------------|-----------------------------------|--|
| | TA | | | T | A | pplicatio | n | ı | L | <i>&</i> ~ |
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Method | Timing Growth Stage (BBCH) | Spray Volume GPA | Rate lb ASM (kg a.s./ha) | Retreatment Interval (day® | Total Rate B. a.s.A (kg kksha) | Tank Markadiuvados |
| RV062-11DA | , MI Region 5 2011 | BYI 02960 200 SL | TRTDD | Applast (dilute appl | 77 | 198 (1851) 202 (1888) | (0.206 | | 0.36% (0.412) | Induce 20.2%v/v Induce QQ2%v/v |
| RV063-11HA | OR Region 11 2011 | BYI 02960 200 SL | TRIDE | Airblast (concentr. appl.) | رُ ۾ | 33,60 (3)4) 39,51 (\$69) | 0.283 (0.205) 0.985 (9.207) | | 0.468 0.412) | Aero Dyne- Amic@0.25 %v/v Aero Dyne- Amic@0.25 %v/v |
| RV063-11HA | OR Region 1 2004 | BYI 02960 200 SL | TOTOD | Airblast (didde appl.) | 817 | 169 (1580) (170) (1589) | 0.785 (0.207) (0.207) (0.207) (0.204) | 10 | 0.367 (0.411) | Aero Dyne- Amic@0.25 %v/v Aero Dyne- Amic@0.25 %v/v |
| Pear 📡 🖏 | *O* | W. | 4 | J. P | r Os | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ | | | | |
| RV064-100A | Region 1 | B 02966 200 SL | | Airblast (concentr. Appl.) | J8 | 49.00 (374) 39.88 (373) | 0.183 (0.206) 0.183 (0.205) | NA 10 | 0.366 (0.411) | Induce NIS@ 0.2% v/v Induce NIS@ 0.2% |
| RV064-1100Å | No Region 1 20 1 | ¥ ~@" | TRTD | Airblast (Wute Cappl.) | 75 76 | 160 (1496) 165 (1543) | 0.183 (0.205) 0.189 (0.212) | NA 10 | 0.372 (0.417) | v/v Induce NIS@ 0.2% v/v Induce NIS@ 0.2% |
| RV065-11HA | J) | BYI 62 960 260 SL | TRTDC | Airblast (concentr. appl.) | 77 78 | 46.56 (435) 45.84 | 0.183 (0.205) 0.183 | NA 10 | 0.366 (0.410) | V/V Hasten@ 0.25% v/v Hasten@ |
| | 35 | | | | | (429) | (0.205) | | | 0.25% v/v |



Table 6.3.2.3-4 (cont'd): Study Use Pattern for BYI 02960 200 SL on Pome Fruits

| | Ą | | Application | | | | | | 0 4 | |
|----------------------|---|----------------------------------|-------------|--------------------------------------|----------------------------|----------------------------------|---------------------------------------|--|-----------------------------|--|
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Method | Timing Growth Stage (BBCH) | Spray Volume GPA | Rate Ib ASAA (kg a.s./ha) | Retreatment Interval (days) | Total Rate ha.s.A | Tank NH&Adjuvatos |
| RV065-11HA | Region 5 2011 | BYI 02960 200 SL | TRTDD | Air last (dilute appl | 77 | 186 (1739), 586 (1739) | 0.183 (0.205) 0.184 (0.206) | NA NA NA NA NA NA NA NA NA NA NA NA NA N | 0.367 (0.41) | Hasten@ 0.25% v/v Hasten@ 0.25% v/v |
| RV066-11HA | CA Region 10 2011 | BYI 02960 200 SL | RTPC | Airblast (concentr. | 78 76 | 48.04 (449) 48.39 (452) | ©183 (0.205) (0.205) (0.206) | 0 11 | Ø:367 (0.411) (0.411) | COC- Moract@ 1% v/v COC- Moract@ 1% v/v |
| RV066-11HA | CA Region 10 | BY (2960) | | Airblest (thute appl.) | 76 P | 2216) | 0.182 (0.204) (0.183 (0.205) | 11 | 0.364 (0.408) | COC- Moract@ 1% v/v COC- Moract@ 1% v/v |
| RV067-1110A | Region@0 | BYC02960 900 SL | FRTDC | Airldast (concentr. «appl.) « | Z. | 40.57 (379) | 0.182 (0.204) 0.183 (0.205) | NA 10 | 0.364 (0.408) | Dyne-Amic NIS@0.2 %v/v Dyne-Amic NIS@0.2 %v/v |
| RV067-11DA | Region 10 | BYI-03960 200 SL | TRIDD | Airblast (diffue appl.) | 85 85 | 162 (1515) 161 (1505) | 0.189 (0.212) 0.182 (0.204) | NA 10 | 0.371 (0.416) | Dyne-Amic NIS@0.2 %v/v Dyne-Amic NIS@0.2 %v/v |
| RV068-11HA | WA Region 14 | FYI 02960 200-8L | TROFDC | Airblast (concentr. appl.) | 81 | 40.27 (376) 39.99 | 0.185 (0.207) 0.183 | NA 10 | 0.368 (0.413) | Super Spread MSO@ 0.25%v/v |
| | .O. | , | | | | (374) | (0.206) | | | MSO@ 0.25%v/v |

Study Use Pattern for BYI 02960 200 SL on Pome Fruits Table 6.3.2.3-4 (cont'd):

| 1 able 0.3.2.3-2 | + (cont a). | Study Use | 1 attern 1 | 01 D 11 02 | 700 20 | | I I OIIIC I | luits | | |
|----------------------|---|----------------------------------|------------|----------------------------------|----------------------------|-------------------------------------|--|--------------------------------|-------------------------------|---|
| | TA | | | | A | pplicatio | on | | | & |
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Method | Timing Growth Stage (BBCH) | Spray Volume GPA | Rate lb #S#A (kg a.s./ha) | Retreatment Interval (days) | Total Rate B a.s.A (kg n.s.h) | Tank Mk& Adjuvatos |
| RV068-11HA | , WA Region 11 2011 | BYI 02960 200 SL | TRTDD | Aighlast (dilute appl | 81 | 201 (1879), 200 (1870) | ©0.186 (0.20%) ©.186 (0.20%) | | 0.37 2 (0.447) | SuperSpread VSO@ 0.25%v/v SuperSpread VSO@ 25%v/v |
| RV069-11DA | Region 11 2011 | BYI 02960, 200 SL | RTDC | Airblast (concentr. appl.) | 78, 7 79, 5 | 48.65 (\$55) 245.24 (\$23) | 0 × 3 (0.205) 2 0 × 7 (0.210) | | \$370 \$0.4150 \$4 | Herbimax@ 1%v/v |
| RV069-11DA | Region 1 | BYI 02960 200 SL | TRTDD | Airblast (drufte appl.) | 787 27 27 787 | 202 (1888) (1838) (1834) | 0.178 (0.199) (0.82 (0.204) | 10 | 0.360 (0.403) | Herbimax@ 1%v/v Herbimax@ 1%v/v |
| RV070-11HA | Region 5 | BYI 02960 200 SL | TRTDC | Arrblast Concentr. apply) | 78 81 | 38.84 (36%) 37.60 (352) | 0.183 (0.205) 0.183 (0.205) | NA 10 | 0.366 (0.411) | Induce@ 0.2% v/v Induce@ 0.2% v/v |
| RV070-11HA | | R\$1 02969 200/SI | TRIOD | Aidolast Gallute appl. | ©78 81 | 216 (2019) 190 (1776) | 0.184 (0.206) 0.183 (0.206) | NA 10 | 0.367 (0.412) | Induce@ 0.2% v/v Induce@ 0.2% v/v |
| RV071-11DA | Region \$ | BYI 19960 200 SL | TRTDC | Airblast (concentr. appl.) | 75 77 | 46.62 (436) 47.37 (443) | 0.183 (0.205) 0.183 (0.205) | NA 10 | 0.366 (0.410) | Hasten@ 0.25% v/v Hasten@ 0.25% v/v |
| | | 7 | | | | 1 | Co | ontinu | ed on nex | :t page |

Table 6.3.2.3-4 (cont'd): Study Use Pattern for BYI 02960 200 SL on Pome Fruits

| | TA | | | | A | pplication | n | | | 0,° % |
|----------------------|---|----------------------------------|-----------|---------------------------------|--|--|-------------------------------------|-------------------------------|---|--|
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Method | Timing Growth Stage (BBCH) | Spray Volume GPA | Rate Ib ASMA (kg a.s./ha) | Retreatment Interval (day® | Total Rate bas.A (kg kksha) | Tank Markdinvator |
| RV071-11DA | , MI Region 5 2011 | BYI 02960 200 SL | TRTDD | Airolast | 75 \$\int_{\infty}^{\infty} \frac{1}{2} | 186 (1739) 190 (1776) | (0.20%) | NA O | 0.366 (0.449) | Hasten@ 0.25% v/v Hasten@ 4.25% v/v |
| RV072-11HA | , BC, Canada Region 11 2011 | BYI 02960 200 SL | | Airbust (concentr. appl.) | \$ 85 | 44,41 (415) 43.16 (404) | © 191 30.214 0.193 (0.246) | 10 2 | Ø:383 \$(0.430€) \$(0.430€) \$(0.430€) | Merge@ 1% v/v Merge@ 1% v/v |
| RV072-11HA | Falls, BC, Cardia Region 11 | BY 102960 (2000) | TRTD | Airbest (ditute appl.) | \$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | \$62 (\$\tilde{0}\$515) \$\tilde{0}\$ \$164 \$(1533) | 0.186 0.209 0.190 (0.213) | 10 | 0.376 (0.421) | Merge@ 1% v/v Merge@ 1% v/v |

TRTDD Treated plot receiving two valued an olast applications.

TRTDC Treated plot receiving two concentrated an olast applications.

In the harvest trials, single composite samples of apples and pears were collected at a pre-harvest interval (PHI) of 14 days from all treated plots; in the decime trials (TRTDD plots), samples were collected 0, 7,14, 21,28, and 35 days after the second application.

In addition, apple samples were collected in mediately before the second application (IBA2), 10 to 11 days after the first application. And these samplings do not reflect the proposed use rate, the residue data from these samples were collected for informational purposes only.

The residues of By 102960, DFA, and FFEAF were quantitated by HPLC-MS/MS using stable isotopically labeled internal standards. The individual analyte residues were summed to give a total BYI 02960 residue. Residue measurements below the analyte LOQ were summed into the total BYI 02960 residue value as the analyte LOQ value.



Findings

Concurrent recoveries of BYI 02960, DFA, and DFEAF were measured with each set of samples to verify method performance. All recoveries were corrected for any interferences in corresponding controls. With the exception of one recovery sample, the overall mean of the recoveries for each matrix was within the acceptable range of 70 to 110%, and the standard deviation values were $\leq 20\%$ (Table 6.3.2.3-5).

Table 6.3.2.3-5: Summary of Recoveries of BYI 0296 from Apple and Pears

| Crop Matrix | Analyte | Spike Level (ppm) | Sample Size (n) | | Mearo Recoverya | Std W Dev. |
|-------------|-----------|--------------------|---|---|---|---------------|
| | | 0.010 | 8 🗬 | 82, 69 87, 86, 95, 86, 93, 118 | \ \\$9%_\\$ | 14% |
| Apple | | 0.100 | 8 | | 105% | NA |
| | BYI 02960 | 0.500 | <u> </u> | | 7 20% <i>(</i> | ∲ NA |
| Pear | | 0.010 | 5 | 70,103,87,96,195 | 93% | 13% |
| 1 Cui | | 0.800 | | 5 5 2103 5 0 0 | \$\text{103}\$\text{\$\text{\$\text{\$\gamma\$}}} | 3% |
| Apple | | 0.010 | | | £9% | 18% |
| прріс | | 0.100 | | \$4 \$7 \$2,586, 96, 79 | × 84% | NA |
| | DFEAF | ~\$0.010° | 4 | 92586, 96, 79 ° | 88% | 7% |
| Pear | Ö | 0.500 | | | 101% | NA |
| | ** | 0.800 | | 7 95 0 | 95% | NA |
| | | © 0.050° | 8 | 68,70 ^b , 86,103, 50, 87 ^b , 87 ^b , 97 | 86% | 12% |
| Apple | SDE ALO | , 0. 59 0 ~ | 1 | 87 7 5 77 5 | 87% | NA |
| | DFA | ~\ ∠ .300/. | | | 77% | NA |
| Pear | | 0.05 0 | 4 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 | 75, 97 ^b , 97 ^b , 106, 106 | 93% | 14% |
| 1 car | "U" ~ `` | 0.300 1 | | 24 | 124% ^a | NA |

a Mean Recovery = mathematical Ferage Fall recoveries

The freezer storage stability study indicates that BYL 02960 residues were stable in spinach leaves and tomato fruits as representative crops of the respective commodity groups (high water content and high acid content) during frozen storage for at least 18 months (558 days) prior to analysis. The maximum storage period of frozen samples in this study for BY1 02960 was 211 days. A summary of the storage conditions are shown in Table 6.3 2.3-6.

b Outside of criteria range (70-120%)

Table 6.3.2.3-6: Summary of Storage Conditions for Pome Fruits

| Residue Component(s) | Matrix (RAC) | Maximum Average Storage Temperature (°C) ^a | Actual Storage Duration months (days) b,c |
|-------------------------|------------------|---|---|
| BYI 02960 | Apples and Pears | <-20 | 6 (211) |
| DFEAF | Apples and Pears | < -20 | 6 211) |
| DFA | Apples and Pears | < -20 | Q 6 (210) S |

- a The maximum average storage temperature is from the time of sample receiped BRP until sample extraction and is the maximum of all average freezer temperatures at BRP and BC Laboratories. White preparing for sample analysis, the samples were maintained in a laboratory freezer.
- b The storage duration is the time from field sampling through the last sample extraction.
- and A. 2012 Storage stability of BYI 02960, diffuoroasetic acid, and diffuoroethyl-amino-furanone in plant matrices. Bayer Copycience Report No. PARVP056, amended version including 18-month data (KIIA 6.1.1/01).

The total BYI 02960 residue data for pome fruits following two foliar application(s) of BYI 02960 200 SL are shown in Table 6.3.2,3-7 (apple) and Table 6.3.2,3-8 (pear). Results from samples taken 200 3L are shown in Table 0.3.2.3-7 (appie) and Table 0.3.2.3-9. Results from sample just prior to the final foliar application are shown for apple in Table 0.3.2.3-9. These latter is not reflect the proposed use rate, and the residue data from these samples were collected for informational purposes only. just prior to the final foliar application are shown for apple in Table 6.3.2.3-9. These latter results do



Table 6.3.2.3-7: Total BYI 02960 Residue Data from Apple Fruits after Two Foliar Application(s) of BYI 02960 SL

| - | | | | 1 | Т | Т | | 1 | | 0 |
|----------------------|---|-----------|------------------|----------------------------|--------------------------------------|---|---------------------------------|-----------------------------------|-----------------------------------|--|
| Trial Identification | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | Total≪ate Ib a.s/A (kg a.s./ha) | Sampling interval (days aftoglast treatment) a | BYI 02966 D Residue (mg/kgg/ | DFAResidue (mg a.s. &quiv./kg) | DFEARResidue & Ogg a.s. equiv.kg) | Agan BY 102960 Residue (mgy.s. equry./kg) b |
| RV050- 11HA | , NY, Region 1, 2011 | TRTDC | Jonagold | Fresh Fruit | 0.369 (0.414) | 14 | ₹0.25 © ; | <0.030 | ≨9.010 √ × | ©0.31 |
| RV050- 11HA | , NY, Region 1, 2011 | TRTDD | Jonagold | Fresh Fruit | 0.360 (0.441) | 14 | M11 | \$0.050 | <0.010 | 0.17 |
| RV051- 11DA | , PA Region 1, 2011 | TRTDC | Rome | Fruit Fresh Fruit | 0.4070 | | 0.338 | ≤0.050 ≤0.050 | <0.010 | 0.40 |
| | | | | | | 74 7 21 0 | 0.12 | <0.0 3 0 <0.050 | <0.010 | 0.17 0.19 |
| | | | | | | 284 285 2 | 0.102 | <0.050 | <0.010 | 0.17 0.16 |
| RV051- 11DA | , PA Region 1, 2011 | TRTDD | Rome | Fruit & | @ | | 0.289 | <© 050 | < 0.010 | 0.35 |
| 11211 | 1, 2011 & | | | Fruit A | | ⁶ √14 ¢ | 0.107 | <0.050 | <0.010 | 0.23 |
| | | | |) } | | 21 0 | 0.108 - 081 | <0.050 <0.050 | <0.010 <0.010 | 0.17 0.14 |
| RV052- | O O O | TRADC | Rome Beauty | » Fresh | ©.366 © | \$35 14,00 | 0.080 0.050 | <0.050 <0.050 | <0.010 <0.010 | 0.14 |
| 11HA RV052 | Region 2, 2011, Region 2, 2011 | TRT D | Rome Beauty | Fruit " Fresh Fspiit | 0.41 <u>4)</u> 0.385 (0.410) 3 | 014 | 0.084 | <0.050 | <0.010 | 0.14 |
| RV053- | MI Region 9, 201 | TRTDC | Red Delicious | Fresh (Fruit | 0.364 | 14 | 0.016 | <0.050 | <0.010 | 0.08 |
| RV053- | MO | TRÆDD | 。♥Red O″ | Fresh | 69.363 (0.406) | 14 | 0.060 | 0.050 | <0.010 | 0.12 |
| RV054- | Region 5, 2011 Region 5, 201 | TRTDO | Golden | Fresh Fruit | 0.367 | 0 | 0.447 | < 0.050 | < 0.010 | 0.51 |
| 11DA | Region 5, 20 | 4 | Delicious | Fruit | (0.411) | 7 | 0.322 | < 0.050 | < 0.010 | 0.38 |
| 4 | \mathcal{L}_{λ} | | | S. J. | | 14 | 0.296 | 0.088 | < 0.010 | 0.39° |
| | * | | | | | 21 | 0.245 | 0.164 | <0.010 | 0.42 |
| | | | | | | 28 | 0.194 | 0.160 | <0.010 | 0.36 |
| RV054- @ | | TRTDA | Golden | Fresh | 0.366 | 35 | 0.241 | 0.270 <0.050 | <0.010 | 0.52 0.46 |
| 11DAS | Region 5, 2011 | | Delicious | Fruit | (0.410) | 7 | 0.370 | 0.030 | <0.010 | 0.40 |
| | Region 5, 2011 | | | | | 14 | 0.209 | 0.146 | < 0.010 | 0.37 |
| | | | | | | 21 | 0.181 | 0.193 | < 0.010 | 0.38 |
| l S |). | | | | | 28 | 0.260 | 0.362 | < 0.010 | 0.63 d |
| | | | | | | 35 | 0.195 | 0.297 | < 0.010 | 0.50 |

Table 6.3.2.3-7 (cont'd): Total BYI 02960 Residue Data from Apple Fruits after Two Foliar Application(s) of BYI 02960 SL

| | | Арри | cation(s) of B | 110290 | O SL | | | | | 0 |
|----------------------|---|---|---------------------|----------------|--------------------------------------|---|--|-----------------------------------|------------------------------------|---|
| Trial Identification | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | Total A ate Ib a.s/A (kg a.s./ha) | Sampling interval (days after last treatment) a | BYI 02960 B Residue (mg/kgg/2) | DFAResidue (mg a.s. Equiv./kg) | DFEARResidue & Ogg. 3.5. cqop./kg) | Total BY 02960 Residue (mg), s. equa./kg) b and |
| RV055- 11HA | , UT Region 9, 2011 | TRTDC | Gala | Fresh Fruit | 0.363 ₄ (0.406) | 14 | (P 0.07#Q; ************************************ | <0.630 | ≶9.010 √ ∕\$ | © 0.14 |
| RV055- 11HA | , UT Region 9, 2011 | TRTDD | Gala (| Fresh Fruit | 0.359 (0.493) | 14 | Ø118 | ©0.050 | <0.010 | 0.18 |
| RV056- 11HA | CA Region 10, 2011 | TRTDC | Summertald | Fresh | 0.364 0.4080 | 14.4 | 0.068 | <0.050 | © * 0.010 | 0.13 |
| RV056- 11HA | CA Region 10, 2011 | TRTDD | | Fruit | 0.365 (0.400) | | 0.205 | 0 .079 ² | ×0.010 | 0.29 |
| RV057- 11HA | Region 11, 2011 | TRITOC | Early Spur' & Some | Fresh Fron | (0.374) (0.499) | 14 × | .0788 7 | 0.050 | <0.010 | 0.25 |
| RV057- 11HA | Region 11, \ 2011 | TRTDD (| Early Spur' Rome | Fresh Fruit | 0.369 (0.414) | 14 | 0,224 | <0.050 | <0.010 | 0.28 |
| RV058- 11HA | OR Region 11, 2011 | TRADC | | Fresh Fruit | (0.405) | 140 | 0.060 | <0.050 | <0.010 | 0.12 |
| RV058- 11HA | OR Region 110 | TRTDD | | Fresh (Fruit | 0.365 (0.469) | 14 | 0.094 | <0.050 | <0.010 | 0.15 |
| RV059- | , ID | TRTD | Jogathan | Fresh | 0.363 | 0 | 0.198 | < 0.050 | < 0.010 | 0.26 |
| 11DA | Region 11 2011 |] | Josathan Q | LIUM | (0.407) | 7 | 0.153 | <0.050 | <0.010 | 0.21 |
| 4 | 2011 | \$\frac{1}{2}\frac{1}{2 | | Zy | | 14 | 0.175 | <0.050 | <0.010 | 0.23 |
| | | | | y | | 21 | 0.082 | <0.050 | <0.010 | 0.14 |
| | | | | | | 28 | 0.132 | 0.057 | <0.010 | 0.20 |
| RV059- | | POTON | Jonathan | Eroch | 0.366 | 35 | 0.070 | 0.069 <0.050 | <0.010 | 0.15 |
| 11046 | Region 114 | TRTDD | Jonathan | Fresh Fruit | (0.410) | 7 | 0.092 | <0.050 | <0.010 | 0.15 |
| | Region 11, | | | | | 14 | 0.108 | < 0.050 | <0.010 | 0.17 |
| | | Ž ^y | | | | 21 | 0.118 | 0.050 | <0.010 | 0.18 |
| | * | | | | | 28 | 0.069 | 0.052 | <0.010 | 0.13 |
| | | | | | | 35 | 0.063 | 0.056 | <0.010 | 0.13 |
| | | l | | | l | | 0.005 | 0.000 | 0.010 | 0.13 |

Total BYI 02960 Residue Data from Apple Fruits after Two Foliar Table 6.3.2.3-7 (cont'd): Application(s) of BYI 02960 SL

| | | | cation(s) of B | 110=>0 | OBL | | | | | 0 |
|----------------------|---|-----------|------------------------|----------------|-------------------------------------|---|---------------------------------|-----------------------------------|-----------------------------------|---|
| Trial Identification | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | Total-Cate Ib a.s/A (kg a.s./ha) | Sampling interval (days affic) ast treatment) a | BYI 02960 L Residue (mg/kgg) | DFAResidue (mg a.s. @quiv./kg) | DFEARResidue & Oga a.s. equiv.kg) | Agtal BY 102960 Residue (mga.s. equr./kg) b 220 |
| RV060- 11HA | NY Region 1, 2011 | TRTDC | Greening Perennial | Fresh Fruit | 0.371 (0.415) | | | <0.630 >> | | 0.12 |
| RV060- 11HA | NY Region 1, 2011 | TRTDD | Greening Perennial | Fresh Frait | 0,568 | Q14 | 0.097 | | <0010 | \$9.16 |
| RV061- 11HA | , MI Region 5, 2011 | | Golden () Delicio () | Fresh Front | 0.667 (6.412) <i>/</i> | 744 | 0.219 | 0.00 | <0.010 \(\sigma\) | 0.29 |
| RV061- 11HA | , MI Region 5, 2011 | TRTD | Golden Delicions | Fresh Fruit | | Q4 | 0.153 | 7 0.06 6 7 | <0.010 | 0.22 |
| RV062- 11DA | Region 5, 2011 | PRTDG | Yellow & Delicious | Fresh Frio | (0,411) | 0 7 % 14 0 | 0.154 0.148 | <0.050 <0.050 <0.050 | <0.010 <0.010 <0.010 | 0.40 0.21 0.21 |
| | | | | | | <u>.</u> \$₹28 | 0.151 | <0.050 | <0.010 | 0.17 |
| RV062- 11DA | Region 5, | TRTDE | Yollow Delicious | Fresh Frank | 0.368 (0.412) | 35,0 | 0.132 0.248 0.133 | 0.100 <0.050 <0.050 | <0.010 <0.010 <0.010 | 0.24 0.31 0.19 |
| | | | | | | 14 21 28 | 0.109 0.128 0.090 | <0.050 <0.050 0.056 | <0.010 <0.010 <0.010 | 0.17 0.19 0.16 |
| | | | | | Ď . | 35 | 0.077 | 0.064 | < 0.010 | 0.15 |
| | Region 5, 2011 | | | | | | Con | tinued or | n next pa | ge |

Table 6.3.2.3-7 (cont'd): Total BYI 02960 Residue Data from Apple Fruits after Two Foliar Application(s) of BYI 02960 SL

| | | | | | | | | | | 0 |
|----------------------|---|-----------|--------------|----------------|-------------------------------------|---|----------------------------|-------------------|---------------|--|
| Trial Identification | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | Total gate Ib a.s/A (kg a.s./ha) | Sampling interval (days after last treatment) a | BYI 02960 Residue (mg/kg%) | DFARE (mg a.S. | DFEARResidue | Total BY 92960 Residue (mg), s. equal./kg) |
| RV063- | 2 | TRTDC | Jonagold | Fresh Fruit | 0.368 / | , Ĭ4 <i>@</i> | 0.104Q | <0.030 | 9 .010 | Ø.16 |
| 11HA | OR | | | Fruit | (0.412)@ | 14 | . ~ | | Ki ≪C | |
| | Region 11, | | | | | | | | <i>a</i> | |
| | 2011 | | 4 | | | | \(\) | | ©.010 | L° |
| RV063- | , | TRTDD | Jonagald | Fresh | ©.367 _≈ | 14,4 | 0.142 | <0.050 | ©0.010 | 0.20 |
| 11HA | OR | | Jonagela | F ruit | (0.4110 | 14.4 | 0.142 | Ž 4 | 30.010 | |
| | Region 11, | | | | | | | <0.050 <0.050 | | |
| | 2011 | | | | | | ľ Š | | , Q | |

- Sampling interval is the interval between last application and sampling state.
- Total BYI 02960 residue is the surf of BYI 02960, DFA, and DFEAF residue on parent equivarents. Residue measurements below the analyte LOQ were surfixed into the total BYI 02960 residue value as the analyte LOQ value. These totals represent the unper limit of what the residual evels much to the surface of These totals represent the upper limit of what the residue levels might be.

 c The maximum total BY1 02960 residue found at the proposed 14-day BHI.

 d The maximum total BY2 02960 gesidue found at the proposed 14-day BHI.

 TRTDD = Treated plot receiving two diluted airblest applications.

 TRTDC = Treated plot receiving two concentrated airblast applications.

Tier 2, IIA, Sec. 4, Point 6: Flupyradifurone (BYI 02960)

Total BYI 02960 Residue Data from Pear Fruits after Two Foliar Application(s) of Table 6.3.2.3-8: BYI 02960 SL

| | | 1 02900 8 | | | | | | | | 0 |
|----------------------------------|--|-----------|--------------------|----------------------------------|---------------------------------------|--|---|---|---|--|
| Trial Identification | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | Total & ate Ib a.s./A (kg a.s./ha) | Sampling interval (days aff@last treatment) a | BYI 02960 D Residue (mg/kgg/ | DFAResidue (mg a.s. Equiv./kg) | DFEARResidue & (Og a.s. coor, kg) | Total BY 92960 Residue (mga.s. equiv./kg) |
| RV064- 11DA | , NY Region 1, 2011 | TRTDC | Bartlett | Fresh Fruit | | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 0.39Q 0.398 0.216 0.174 0.166 | 0.61 0.164 0.151 0.166 0.200 0.186 | <0.010 <0.010 <0.010 <0.010 <0.010 <0.000 | 0.50 0.51 0.38 0.34 0.38 0.29 |
| RV064- 11DA | , NY Region 1, 2011 | TRTDD | | | | 28 35 | 0.446 0.37 0.203 0.174 0.162 | 0.252 0.252 0.271 | 0.0100.0100.0100.0100.0100.010 | 0.63 0.58 0.50 0.44 0.40 0.44 |
| RV065- 11HA RV065- 11HA | Region 5, 2011 Region 5, 201 | TRÆ C | Bartlett Bartlett | Fresh Fruit Fresh Fryft | 0.366 0.410 0.369 (0.411) | 0 14 0 | 0.213 | 0.225 0.154 | <0.010 | 0.45 |
| | Region 10, 2011 | TRPDC | Bartlett | Fruit | | 140 | 0.059 | <0.050 | <0.010 | 0.12 |
| RV066 11HA | Region 10, 2011 Region 10, 2011 CA Region 10, 2011 CA Region 10, 2011 | TRIPOD | Bartlett | Fresh Eruit | 0.364 ° (0.408) | √ 14 | 0.197 | 0.097 | <0.010 | 0.30 |
| RV067- | , CA | TRTOC | Shinko 😽 | Fresh | 0364 | 0 | 0.194 | < 0.050 | < 0.010 | 0.25 |
| IIDA | 2011 | | | Q a | (0.408) | 7 | 0.209 | <0.050 | < 0.010 | 0.27 |
| | | | | | V | 14 | 0.166 | <0.050 | <0.010 | 0.23 |
| | | ~\\ .a | | | | 21 | 0.144 | 0.070 | <0.010 | 0.22 |
| | | | | Q ³ | | 28 | 0.069 | 0.081 | <0.010 | 0.16 |
| RV067 | CA | TRTA | Shinko | Frech | 0.371 | 35 | 0.055 | 0.093 | <0.010 | 0.16 |
| 11DA | Region 10, | | | Fruit | (0.416) | 7 | 0.275 | <0.050 <0.050 | <0.010 | 0.34 |
| | 2014 | | | | | 14 | 0.239 | <0.050 | <0.010 | 0.30 |
| ~ | | | | | | 21 | 0.174 | < 0.050 | <0.010 | 0.24 |
| | | | | | | 28 | 0.174 | 0.066 | <0.010 | 0.21 |
| | | | | | | 35 | 0.118 | 0.087 | < 0.010 | 0.21 |
| | 1 | | | | | | | 1.50, | 1 2.010 | |

Table 6.3.2.3-8 (cont'd): Total BYI 02960 Residue Data from Pear Fruits after Two Foliar Application(s) of BYI 02960 SL

| _ | | rr | | | | 1 | I | I | | <i>m,</i> ~ |
|---|---|-----------|----------------------------|-------------------|--------------------------------------|---|--------------------------------|-----------------------------------|---|---|
| Trial Identification | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | Total-Cate Ib a.s./A (kg a.s./ha) | Sampling interval (days affer last treatment) a | BYI 02966 D Residue (mg/kgg | DFAResidue (mg a.S. @quiv./kg) | DFEARRESIDUE & ON ON ON ON ON ON ON ON ON ON ON ON ON | Fotal BY 92960 Residue (mgy.s. equiv./kg) |
| RV068- 11HA | Region 11, 2011 | TRTDC | Concorde | Fresh Fruit | 0.368 (0.413) | 14 0 | ? 0.25£ | 0.61 | 9.010 5 | Ø.43 |
| RV068- 11HA | , WA Region 11, 2011 | TRTDD | Concorde | Fresh Front | 0.3 6 52 (0.417) | Qr4 | 8.225 C | 0.216 W | <0.010 | 0.44 |
| RV069- 11DA | Region 11, 2011 | TRTDC | Bardett (| Fresh | 0.370 | V 7 | 0.254 | <0.050 | <0.000 <0.010 | 0.31 |
| | 2011 | | | | | 140° | 04 [©] 9 0.192 % | ©0.050°2 | <0.010 | 0.20 |
| | | | | | 8 | 28 35 S | 0.175 0.184 | 0.107 | <0.010 | 0.29 |
| RV069- 11DA | Region 11 2011 | TRTDD | Bartlett | Fresh Fruit | (0.360° (0.403) | 0 0 7 0 | √0.295 € √ 0.167% | <0.050 <0.050 | <0.010 <0.010 | 0.35 |
| | | | | | | 14 | 0.158 0.125 | 0.056 0.072 | <0.010 <0.010 | 0.22 |
| | | | | | | 35 | 0.106 0.125 | 0.081 | <0.010 <0.010 | 0.20 |
| RV070- | Region 11.0 2011 | TRTDE | Bootlett | Fresh | 0.366 (0.411) | ~j4 0 | 0.319 | 0.261 | <0.010 | 0.59 |
| RV070- 11HA | Region 11, 5 | TRTDD | Barftett Bartlett Bartlett | Fresh (Fruit, | 0.367 | 14 | 0.155 | 0.194 | <0.010 | 0.36 |
| RV071- | | TOTOC | Bartlett | Fresh | 0.366 | 0 | 0.648 | 0.068 | < 0.010 | 0.73 |
| 11DA | , IVII | | | Fruit | (0.410) | 7 | 0.508 | 0.105 | < 0.010 | 0.62 |
| | Region 11, 2011 | 4 | | | | 14 | 0.467 | 0.167 | < 0.010 | 0.64 |
| 4 | | | | S. | | 21 | 0.386 | 0.206 | < 0.010 | 0.60 |
| | | | |) [*] | | 28 | 0.264 | 0.270 | < 0.010 | 0.54 |
| | \$ 1 | | S Q' | | | 35 | 0.275 | 0.326 | < 0.010 | 0.61 |
| RV071- | , | TO TOD | Bartett | | | 0 | 0.361 | < 0.050 | < 0.010 | 0.42 |
| IIDA | Region 11 | | ν | Fruit | (0.410) | 7 | 0.314 | 0.086 | < 0.010 | 0.41 |
| | \$011 \$\langle\$ | Ž | | | | 14 | 0.208 | 0.102 | < 0.010 | 0.32 |
| | | | | | | 21 | 0.169 | 0.161 | < 0.010 | 0.34 |
| , ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ | | 7 | | | | 28 | 0.138 | 0.149 | < 0.010 | 0.30 |
| L C | | | | | | 35 | 0.107 | 0.144 | < 0.010 | 0.26 |

Table 6.3.2.3-8 (cont'd): Total BYI 02960 Residue Data from Pear Fruits after Two Foliar Application(s) of BYI 02960 SL

| | | Аррис | anon(s) or b | 110290 | USL | | | | | |
|---|--|--|--|--|--|--|--|------------------------|----------------------------------|--|
| Trial Identification | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | Total date Ib a.s./A (kg a.s./ha) | Sampling interval (days after last treatment) | BYI 02966 L Residue (mg/kgg) | | DFEARResidue & Oggas.s. eq@p/kg) | Agtal BY 82960 Residue (mga.s. equil/kg) b 220 |
| RV072- 11HA | , BC, Canada Region 11, 2011 | | Anju | Fresh Fruit Fruit Fresh Fruit | 0.383 | 14 | 0.39\$\$\$ \$0.39\$\$\$ \$0.39\$\$\$ \$0.39\$\$\$ | \(\infty\) \% | | 0.70 |
| RV072- 11HA | , BC, Canada Region 11, 2011 | TRTDD | | . « . | 10.421 | | | | 3 .010 | |
| a samplin b Total B measure These to TRTDD = T TRTDC = T | g interval is the in YI 02960 residue is ements below the abtals represent the Greated plot receive freated plot received and the state of the state | terval betwise the sum of the sum | and last application of BY102960, In Discourse Summed of what the rest of the control of the con | tion and so A, and Sinto the into the i | appling da SFEAR Se otal BY 1 02 s might be. | ře. jdue hypar 2960 residy | en oquival te value a | ots. Residente analyte | lue LOQ value | ē. |

Total BYI 02960 Residue Data on Apple Fruits Collected Immediately Prior to the Table 6.3.2.3-9: Final Foliar Application of BYI BYI 02960

| | 1 111 | | Application o | 15115 | | | | | | 0 |
|----------------------------------|--|-----------------|---------------|-------------------------|---|-----------------------------|------------------------------|---------------------------------|--|---|
| Lrial Identification NO50- 11HA | Location (City, State, XX, Region, and Year) | Plot Name | Crop Variety | Commodity | Total atc 100 Total | (days after Jast treatment) | BYI 02966 & Residue (mg/kgg) | DFAResidue (mg a.S. @quiv./kg) | DFEAR Residue & Office of One | Gardia BV 2000 Residue (mga.s. equiv./kg) b |
| RV050- 11HA | , NY, Region 1, 2011 | TRTDD | Jonagold | Fresh Front | 0.367 | -0(0BA2) | \$0.062 T | (2) \(\frac{1}{2} \) | <0.000 <0.000 0.00 | 0°12 |
| RV051- 11DA | , PA Region 1, 2011 | TRTDC | Rome (| Fresh Frûnt | 0.368 | -0(1BA2) | 50.072 50.072 | 0.050 | <0.090 | 0.13 |
| RV051- 11DA | , PA Region 1, 2011 | TRTD | Rome (| Fresh Fruit | 0.3 9 (0.425) | -0(A)(A2) | 9.081 | 0.050 | <0.010 | 0.14 |
| RV052- 11HA | GA Region 34 | TRTDC | Rome Beauty | Fruit | (0.491) | -0(IBA2) | -0,041 ° | ×0.050 | <0.010 | 0.10 |
| RV052- 11HA | GA Region 2. | | Rome Beauty | Fruit > | % | -0(IBA2) | Q 950 | <0.050 | <0.010 | 0.11 |
| RV053- 11HA RV053- | PMI Region 5, 2011 | TRADC | Red Delicious | F 01 | (0.407) | 20(IBA2) → (IBA2) | 0.018 | <0.050 | <0.010 | 0.08 |
| 11HA | | | Delicious | Pruit (| (0.406) | -0(IBA2) | | <0.050 | <0.010 | 0.12 |
| 11DA RV054- | Region 5, 2011 | TRTDD | | From (| 0.366 0.366 | -0(IBA2) | 0.176 | <0.050 | <0.010 | 0.24 |
| | Region 5, 2011 | ŘŘTD É , | Delicions | Fresh Fresh Fresh | (0.410) | -0(IBA2) | 0.088 | <0.050 | <0.010 | 0.15 |
| 11HA RV055- | Region 9, 2011 | | | Fruit | 0.406) | -0(IBA2) | 0.079 | <0.050 | <0.010 | 0.14 |
| 11HA | Region 2011 | | * * | Fruit | (0.403) | | Con | tinued or | n next pa _z | ge |
| | | | | | | | | | | |

Total BYI 02960 Residue Data on Apple Fruits Collected Immediately Prior to the Final Foliar Application of BYI BYI 02960 Table 6.3.2.3-9 (cont'd):

| | | | Tillal Tollal F | -P P | | | | | | 0 |
|----------------------|---|-----------|----------------------|----------------|--|---|-----------------------------------|----------------|--|-------------------------|
| Trial Identification | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | Total Ante P. C. Dass./A (kg a.s./ha) | Sampling interval (days after last treatment) | BYI 02960 BY Residue (mg/kgg 200) | DFAResidue | DFEARRESIDUE & DFEARRESIDUE & ON ON ON ON ON ON ON ON ON ON ON ON ON | Gagal BY \$2960 Residue |
| 11HA | , CA Region 10, 2011 | | | | (0.408) | | | 0.030 | | |
| RV056- 11HA | CA Region 10, 2011 | TRTDD | Summerteld | Fresh | 0.365 | | | | | 2 0.24 |
| RV057- 11HA | Region 11, 2011 | TRTDC | °~ | Fresh Fruit | 0.374 | Ø(IBAQ) | 0.075 | 50 050, | ॐ 0.010 У | 0.13 |
| RV057- 11HA | , ID, Region 11, 2011 | TR¥DDD | Early Spar Rome | Fresh Pruit | 0.369 | O(IBA2) | 0.132 | <0.030 | <0.010 | 0.19 |
| RV058- 11HA | OR Region A, | TRTIO | Hopey Crisp | Freeh Ewit | 0,382 (0,405) | -OH/BA2) | 0.042 | <0.050 | <0.010 | 0.10 |
| RV058- 11HA | OR 7 | TRTDĎ | Herrey Crisp | Fresh Fruit | 9,365 (9,409)(| (IBA2) | 0.049 | <0.050 | <0.010 | 0.11 |
| RV059-7 11DA | 2042 | TRABC | Jonathan | | 0.363 | (IBA2) | 0.072 | <0.050 | <0.010 | 0.13 |
| RV059- 11DA | , IB | TRTĐĎ | Monathan | Fresh Fruit | 0566 (0.410) | -0(IBA2) | 0.085 | <0.050 | 0.010 | 0.14 |
| RV060- 11HA | ,¢ | TRTAC | Greening Perennia | Fresh FOIt | 0.371 (0.415) | -0(IBA2) | | <0.050 | <0.010 | 0.13 |
| RV060- 11HA | NY Region 12011 | TRTOD | Ferennial | Fresh Fruit | 0.368 (0.413) | -0(IBA2) | 0.067 | <0.050 | <0.010 | 0.13 |
| | Region K2011 | | | | | | Con | tinued or | ı next paş | ge |

Table 6.3.2.3-9 (cont'd): Total BYI 02960 Residue Data on Apple Fruits Collected Immediately Prior to the Final Foliar Application of BYI BYI 02960

| | | | | | | | | | | 0 |
|----------------------|--|--|---------------------|------------------------------|--------------------------------------|---|--------------------------------|--|---------------------------------|---|
| Trial Identification | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | Total ∰ate Lb a.s./Å (kg a.s./ha) | Sampling interval (days after last treatment) a | BYI 02960 BRY Residue (mg/kgg) | OK DFACResidue (mg a.s. Equiv./kg) | DFEACResidue & ODFEACRESIAN (2) | Aotal BY 02960 Residue (mgr.s. equil./kg) bala |
| RV061- | , MI | TRTDC | Golden | Fresh | 0.367 | -0(IBA2) | 0.14 Q | <0.630 | \$0.010 | Ø.20 |
| 11HA | Region 5, 2011 | | Delicious | Fresh Fruit | (0.412) |) | ~ × | | | |
| | | | | | Ď ĮŽ | | W. | | √ . [™] | |
| RV061- | , MI | TRTDD | Golden | Fresh | 0.864 | -0@BA2) | 6 .107 | <0.050 | <0:010 | 0:17 |
| 11HA | Region 5, 2011 | | Delicions, | Front | 0. 36 4 (0.408) | Q .4 | | 0. | <0.010 | Ũ |
| | | | | | S, Č | | ~O` | | | * |
| RV062- | , MI | TRTDC | Yellow & | Fresb | 0.367 | -0(JPÅ2) | 20 .086 | ×0.050 | <0.000 | 0.15 |
| 11DA | Region 5, | | Delicious | Fruit | (0.471) | \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | | | Ö | |
| | 2011 | | | · · | * | | الله الله | Ţ, | S. | |
| RV062- | , MI | TRTDD | Yellow Delicious | @resh_ | 0.3685 (0.412) | -0(IBA2) | QQ12 | ©0.050 | [≫] 0.010 | 0.17 |
| 11DA | Region 5, | | Delicious | [©] Frui t ∂ | (0.412) | | | | | |
| 7770 64 | 2011 | W ^y | | | (A) 2 (C) | | 0 0 | A | 0.010 | 0.10 |
| RV063- | , | TRTDC | Jonagold | Presh | 9 .368 | -0(IBA2) | 0.072 | 20 .050 | < 0.010 | 0.13 |
| 11HA | OR | 'Y A | | Struit & | (0.412) | | | | | |
| | Region 11, | | | | `~\ | 0 4 | | | | |
| DV/062 | 2011 | | VI. and VI. | Sark. | ₩' ₩ 2 <i>67</i> @ | | 0.050 | <0.050 | <0.010 | 0.11 |
| RV063- 11HA | , and the second | TRTDD | Jonagold | Fresh | 0.367@ (0.449) | -0(IBA2) | 0,050 | < 0.050 | < 0.010 | 0.11 |
| ППА | OR 11 | \ \ \\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | | riuity L | (U.483) | | | | | |
| | Region 11,5 | \$ | | | | | _ | | | |
| | | W | | , W | (X) | | | | | |

- a Pre-Harvest Interval (PHIX is the interval between law application and ampling date.
- b Total BY 02960 residue is the sum of BY 02960, DFA, and DFE is residue in parent equivalents. Residue measurements below the analyte LOQ yere summed into the total BYI 02960 residue value as the analyte LOQ value. These totals represent the upper limit of what the residue levels might be.

TRTDD = Treated plot recoving two diluted airblas opplica ons

TRTDC = Treated plot receiving two concentrated airblast applications

IBA2 = Immediately before the second application (= application 2)

Conclusion

Twenty-three field trials were conducted to measure the magnitude of total BYI 02960 residue in/on apples and pears following two foliar spray applications of BYI 02960 200 SL following two airblast applications, either with a concentrated or a diluted spray solution. In total eight decline trials were conducted, four in apple and four in pear .

The total FYI 02960 residue data for pome fruits are summarized in Table 6.3.2.3-10.

Table 6.3.2.3-10: Summary of Residue Data for Total BYI 02960 from Pome Fruits

| | 2 | A | | | Total BYI 02960 Residue Levels (ppm) ¹ | | | | | | · . |
|-----------|------------------------|---|-------------|-----------|---|---------------|----------------------------------|-------------------|---------------|---------|-----------------------|
| Commodity | Plot Name ² | Total Application Rate lb a.s./ (kg a.s./ha) | PHI (days)³ | u | Min at PHI | Max at PHI | Max after PHI | AAQT 3 | Median 4 | Mean Un | Standach Deviation |
| Apples | TRTDC | 0.362 to 0.374 (0.405 to 0.419) | 14 | 14 | 0.076 | 0.395 | 0.52 | » NA ⁶ | ~~~ | 1 // /(| 9 .092 |
| Apples | TRTDD | 0.359 to 0.379 (0.403 to 0.425) | 14 | 14 | 0.120 | 0.366 | 0 6 3 28) ⁵ | NA @ | 0.1739 | 0.290 | 0. 66 9 |
| Pears | TRTDC | 0.364 to 0.383 (0.408 to 0.430) | 14 | 9 | 1 119 | 0.701 | | NA Q | Q ,426 | Ø.414 | 0.205 |
| Pears | TRTDD | 0.360 to 0.376 (0.403 to 0.421) | 14 | \$ | 0.234 Ø | 0502 | | NAO | 0.320 | 0:335 | 0.090 |

1 Data from the decline trial samples collected at intervals other that the 14-day PHI are not included this table.

2 TRTDC = Treated plot receiving two concentrate airblast applications;
TRTDD = Treated plot receiving two dilute orblast applications;

3 HAFT = Highest Average Field Trial.

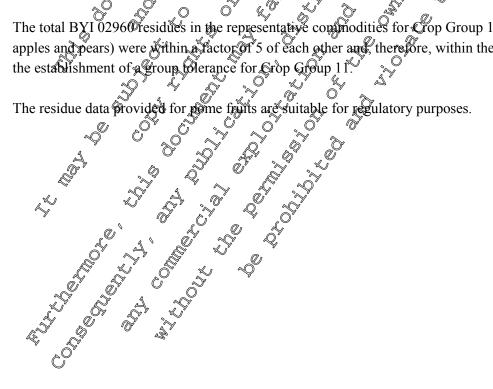
4 calculated on the basis of residue values at the PMI

5 Sampling day showing highest residue

6 NA = Not applicable. A single sample was collected from such treated plot.

Most trials showed a general slow decline in total BYI 02960 residues throughout the sampling intervals. Other trials showed a decrease in table BYI 02960 residues throughout the sampling intervals. intervals. Other trials showed a decrease in total BY 02960 residue with either Develing of the total residue or a slight increase in total residue at the end of the decline intervals. One trial in apple showed the highest residue a day 35, the last sampling day of the decline trials. However the overall highest residue level (0.70 mg/kg) was detected at the PHI of 14 days.

The total BYI 02960 residues in the representative commodities for Crop Group 11 (Pome Fruits; apples and pears) were within a factor of 5 of each other and, therefore, within the EPA guidelines for





IIA 6.3.2.4 Berries and small fruit - grapes

Residue data from NORTH AMERICA (Crop Subgroup 13-07F)

BYI 02960 is to be registered in USA and Canada for use as a foliar or soil treatment in/on small fruit vine climbing subgroup, except fuzzy kixifruit (crop subgroup 13-07F). The use patterns in North Control of the control of the America are summarized in Table 6.3.2.4-1.

A total of sixteen trials were conducted in grapes as representative test Wstem. The studies described below.

Target Use Patterns for the Application of BYI 02960 in/on Small Fruit Vine Table 6.3.2.4-1: Climbing Subgroup (Crop Subgroup 13-0 F) in North America

| | | | | | | (7/1) | × // // | | ~ 3// | | , | |
|----------|---------------------|--------|-------|---|-------------|-----------|-------------|-----------------------|------------|-----------------------|-----------------|-----------------|
| | | | | Formulated Product (FP) Active Substant | | | | Farget. | | | | V ol ůme |
| App- | | | rrouu | ici (FF) | Active Si | instance | (a,s,) | OApp. | Target | Adjuvænt/ Adestive | | |
| lication | Test | No. of | | Q | | ∜lb ~ | ∜kg ≾ | /Interval | PH | Additive | | |
| Type | Substance | Apps | mL/A | fl oz/A | Name of ass | 🌣 a.s./A📞 | a.s./ha | (Days) | (Days) | (%) | GPA | LPHA |
| TRTDF | BYI 02960 200 SL | 2 | 415 | 14.0 | BYI 02980 | 0.083 | 905 2005 | \$ ⁰ 10 \$ | | 0.25 | 200- 300 | 1870- 2806 |
| TRTDS | BYI 02960 200 SL | 1 | 83% | 28.1 | B) 02960 | 0.366 | 0.414 |)/ | 3 0 | 0.25 | NA ¹ | NA ¹ |

¹ NA = Not applicable

TRTDF = Treated plot receiving two proadcast foliar spray applications
TRTDS = Treated plot receiving a single soil applications

| Report | KMA 6,32.4/01, 2012 |
|--------------|--|
| Title: | BYI 02960: Magnitude of the Residue in/on Small Front Vine Climbing Subgroup (except |
| | Fuzzy Kiwitait), Cop Subgroup 13-07F) |
| Report No & | RARVY007, dated June 4,2012 |
| Document No | Q1-432 18v1-01-25 |
| Guidelines 🖏 | US: PA Residue Chemistre Test Guidelines OPPTS 860.1500, Crop Field Trials |
| Q1 | Canada: PMRA DO CO 7 1.1, Supervised Residue Trial Study |
| Q | □ □ □ MRA DACO 4.2. Résidue Decline |
| 4 | OECD GuidQines for the Tosting of Chemicals, 509, Crop Field Trial, |
| CID C | Taypica Sept. 7, 2007. |
| GLP | |

Sixteen field trials were conducted to measure the magnitude of BYI 02960 residues in/on grapes as a representative frop for NALIA small fruit vine climbing subgroup following two broadcast foliar spray applications or a single soil application of BYI 02960 200 SL. BYI 02960 200 SL is a soluble concentrate formulation containing 200 g BYI 02960/L. The number and location of field trials conform to the guidance given by the EPA (Table 6.3.2.4-2).



Table 6.3.2.4-2: Trial Numbers and Geographical Locations for BYI 02960 in/on Grapes

| NAFTA Growing Region | Submitted ^a | Requested |
|----------------------|------------------------|-------------|
| 1 | 2 | 2 |
| 5A | 4 | 4 |
| 10 | 8 | 8 |
| 11 | 2 | 2 |
| Total | 16 | 6 16 |

Material and Methods

Two use patterns/application forms were tested: either two two broadcast foliar spear applications or a single soil application of BYI 02960 200 SL. For plots receiving two airbrest applications, individual application rates ranged from 0.168 to 0.189 lb BY 02960/A/application (0.188 to 0.211 kg BYI 02960/A (0.388 to 0.417 kg BYI 02960/ha). The interval between the applications was 9 to 11 days. For plots receiving a single collection of the control of the collection BYI 02960/ha/application) and total seasonal application rate anged from 0.346 to 0.372 lb days. For plots receiving a single soft drength application application rates ranged from 0.364 to 0.380 lb BYI 02960/A (0.408 to 0.426 kg/BYI/02960/ba). All applications were made at growth stages ranging from BBCH 75 to 89 (BBCH 75: berries per sized Gunches hanging; BBCH 89: berries ripe for harvest). All applications were made using ground-based equipment. A typical non-ionic surfactant (Dyne-Amic or Agral 90) was used as adjuvant in all of the applications at 0.25% (v/v).

Trial Site conditions, including soil characteristics are summarized in Table 63.2.4-3. Study use patterns are summarized in Table 0.3

Trial Site Condition for BY 1 02950 on @apes

| Trial | | Soil | | cteristi | cs ^a | | ological ta ^b |
|------------------------|---|------------|-----------|----------|---------------------------|---------------------------|-----------------------------|
| Identification Crop | Trial Location (City, Sountry State Year) | John O | OM (%) | рН | CEC (meq/100g soil) | Total Rainfall (in) | Temp. Range (°F) |
| RV092-10DA Grape | NYO (| P % | 1.4 | 4.3 | 7.8 | 13.29 | 42-80 |
| RV093-10HA Grape | Q'A A | Loam | 2.8 | 5.9 | 10.7 | 10.19 | 63-95 |
| RV094©0HA Grape | , and | kom kom | 1.8 | 7.2 | 11.4 | 6.58 | 49-80 |
| RV095-10DA Grape | ON | Loam | 1.8 | 7.2 | 11.4 | 10.86 | 39-80 |
| RV096-10HA | | Loam | 1.8 | 7.2 | 11.4 | 6.58 | 49-80 |
| RV097-10FA Grap® | Ç, ON O | Loam | 1.8 | 7.2 | 11.4 | 6.58 | 49-80 |
| RV98-10DA | , CA | Loam | 1.5 | 8.1 | 17 | 0.01 | 52-93 |
| R\$7099-100A Grape | , CA | Loamy sand | 0.5 | 8.2 | 6.9 | 0.00 | 51-96 |
| RV100/10HA Grape | , CA | Loamy Sand | 0.5 | 8.2 | 6.9 | 0.00 | 55-96 |



Table 6.3.2.4-3 (cont'd): Trial Site Conditions for BYI 02960 on Grapes

| Trial | | Soil | Chara | cteristi | cs ^a | Meteorological Data ^b D | | |
|------------------------|---|-------------|---|----------|----------------------------------|---------------------------------------|----------------|--|
| Identification Crop | Trial Location (City, Country/State, Year) | Туре | OM (%) | pН | CEC (meq/100g soil) | Total Rainfall (in) | Temp, Range | |
| RV101-10HA Grape | , CA | Sandy Loam | 0.7 | 7.6 | 9.3 | 0.00 | 59-92 | |
| RV102-10HA Grape | , CA | Clay Loam (| ∂ 2.3 | 3.7 | 36.4 | ×1.15 | 45-87 | |
| RV103-10HA Grape | , CA | Clay loans | 1.8 | 7.80 | 19.1 | 0,00 | \$2-93 | |
| RV104-10HA Grape | , CA | Loams | 0.4_ | 6.5 | \$ 5Q \ | 0.00 | 55 3 | |
| RV105-10HA Grape | , CA | Sandy Loan | 1.21 | 6.9 | 38.7 | 0.00 | 60-96 | |
| RV106-10HA Grape | , WA | Sandy Loam | 3.2 | Q7.6 | 13.9 | 01.35 | 40-84 | |
| RV107-10HA Grape | , OR | Loam | ~2% ************************************ | | \$\frac{1}{2}\text{9.8} \text{9} | 0/2/5 | 41-73 | |

- Abbreviations used: %OM = percent organic matter; CEC = cation exchange capacity.

 Data is for the interval of the month of first application through the month of last campling. Meteopological data were obtained from nearby government weather stations.

 NA = Not Available.

 ble 6.3.2.4-4: Study Use Pattern for BYI 02/60 200 SL on Grapes.
- c NA = Not Available.

Table 6.3.2.4-4:

| | | | . <i>Q</i> | <i>X X X</i> | JI . | - (| | | | |
|----------------|----------------------------------|--|------------|------------------|------------|------------------------|-----------------------------|-----------------------------|-----------------------------------|------------------------|
| | | | | | | pplicatio | on _© | | | |
| Identification | Location (City State, NAFTA Cing | Control of the contro | ot Name: | | age/(RBCH) | Spray Volume GPA (Wha) | Rate lb a.s./A (kg a.s./ha) | Retreatment Interval (days) | Total Rate 1b a.s./A (kg a.s./ha) | Tank Mix Adjuvants |
| RV092-10DA | NY Region 2010 | BYI 02960 200 SL | TRODF | Arblast | 85 | 51 (476) | 0.186 (0.209) | NA | 0.371 (0.416) | Dyne-Amic @0.25%v/v |
| | | | | | 89 | 50 (472) | 0.185 (0.207) | 10 | | Dyne-Amic @0.25%v/v |
| RV092-40DA | IN Y | B 9 02960 200 SL | TRTDS | Chemi- gation | 83 | NA | 0.366 (0.410) | NA | 0.366 (0.410) | Dyne-Amic @0.25%v/v |

Study Use Pattern for BYI 02960 200 SL on Grapes Table 6.3.2.4-4 (cont'd):

| | 3.2.4-4 (cont.d). Study Ose Fattern for B 11 02900 200 SL on Grapes | | | | | | | | |
|---|---|------------|---------------------|----------------------------|------------------------------------|---|-----------------------------|--|--|
| | | | | A | pplicatio | n | ı | | <i>Q</i> ° % |
| Trial Identification Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Wether Services | Timing/Growth Stage (BBCH) | SprayVolume GPA (L/ha) | *Rate IB a.s./A (kg*is./ha) | Betreatment Interval (days) | Less Constitution of the c | Tank Mix Adjugants 29 |
| RV093-10HA Region 1 2010 | 200 SL | TRTDE | Airt Cast | 899 T | 2 (v (40)67) 20(5) (1953) | (₩.207) | | 0.369 0.4130 0.366 (0.410) | Dyne-Amic @0.35%v/v Syne-Amic @0.25%v/v |
| RV093-10HA Region 1 2010 | BYI 02960 2008L | | Drip | | | | NÓ | 0.3%6 (0.410) | Dyne-Amic @0.25%v/v |
| RV094-10HA Region 5 | BYL02960 200 SL | TRTDES | Airbast | \$35 \$35 | 267 (\$314) | 0×168 ((0.188) (0.188) (0.188) (0.188) (0.199) | 9 | 0.346 (0.388) | Agral 90 @ 0.25 % Agral 90 @ 0.25 % |
| RV094-101A Region 5 | B\$\$\02966\$\$\\200 SL | | Drivine . | | ĐĂ | 0.364 (0.408) | NA | 0.364 (0.408) | Agral 90 @ 0.25 % |
| RV095-10DA Region 2010 | BYI 02960 2008L | TRADE | Airblag | 83 | 42 (392) 38 | 0.175 (0.197) 0.185 | NA 9 | 0.361 (0.404) | Agral 90 @ 0.25 % Agral 90 @ |
| | | | , | 0, | (353) | (0.207) | | | 0.25 % |
| RV095-10DA gegion 5 2010 | \$YI 02960 200 SL | TRTĎS ũ | Dripline irrigation | 75 | NA | 0.364 (0.408) | NA | 0.364 (0.408) | Agral 90 @ 0.25 % |

Study Use Pattern for BYI 02960 200 SL on Grapes Table 6.3.2.4-4 (cont'd):

| Table 6.3.2.4-2 | (cont a). | Study Use Pattern for B 11 02900 200 SL on Grapes | | | | | | | | | |
|--|---|---|-----------|-----------|----------------------------|--------------------------------|---|----------|--|---|--|
| | | | | | A | pplicatio | n | Π | T | o° > | |
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Methode S | Timing/Growth Stage (BBCH) | SprayOglume GPA (L/ha) | * O.S. ** O.S. ** O.S. ** S.A. (kg*** S.A.ha) | ا کھے ا | Les Constitutions (1984) And Constitutions (19 | Color | |
| RV096-10HA | Region 5 2010 | BYI 02960 200 SL | TRTDE | | | 145 (4591) 252 (2359) | 0783 (0.205) 07188 0.2113 | | 0.371 | | |
| RV096-10HA | Region 5 | 200 SL | TRTDS | | | | 0.364 | ON A | %/364 (0.408) | Agral 90 @ 0.25 % | |
| RV097-10HA | Region 5 | BYI 92960 200 SL 4 | *DRTDF | Airbīast | 850 | | 0 89 (0.211) | NA | 0.372 (0.417) | Agral 90 @ 0.25 % | |
| | | | | | | (©34) | 0.184 (0.206) | 9 | | Agral 90 @ 0.25 % | |
| RV097-10HA | Region 5 2010 | 256 SL | | | | NA | 0.364 (0.408) | NA | 0.364 (0.408) | Agral 90 @ 0.25 % | |
| A STATE OF THE STA | Regien 10 2 2010 | 77 27 70 27 70 27 | TREDF | Arblast | 83 | 246 (2296) 246 (2304) | 0.184 (0.206) 0.185 (0.207) | NA 11 | 0.369 (0.413) | Dyne-Amic @0.25%v/v Dyne-Amic @0.25%v/v | |
| RV098-40DA | CA Region 10. | BY 02960 200 SL | TRTDS | Drench | 77 | NA | 0.366 (0.410) | NA | 0.366 (0.410) | Dyne-Amic @0.25%v/v | |



Table 6.3.2.4-4 (cont'd): Study Use Pattern for BYI 02960 200 SL on Grapes

| | | | | | A | pplicatio | n | | | Qı° 🗞 |
|----------------------|---|-------------------------------|-----------|------------------|----------------------------|--------------------------------|---|-----------------------------|---------------------------------------|--|
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Methode S | Timing/Growth Stage (BBCH) | Sprawyglume GPA (L/ha) | * Co *Rate 1B a.s./A (kg*n\s\na) | Betreatment Interval (days) | O. C. C. C. C. C. C. C. | Ch Che Ching Ching Taink Mix Adhivants 199 |
| RV099-10DA | , CA Region 10 2010 | BYI 02960 200 SL | TRTDE | | 85 X | 220 (2062) 220 (2076) | 0284 (0.207) 0484 (0.206) | | 0.368 | Syne-Amic |
| RV099-10DA | , CA Region 10 2010 | BYI @2960 200 SL | | | 76 | | 0.366 (9.410) | | Ø.366 (Ø.410) | EXP8089- 2A 0.25% v/v |
| RV100-10HA | Region 10 | BY 7029602 2000 SI | TRTIO | Alegrast | | 2083) (2083) (2085) | 0.186 0.209 0.209 0.280 (0.202) | 10 | 0.366 (0.410) | Dyne-Amic @0.25%v/v Dyne-Amic @0.25%v/v |
| RV100-10H | , CA Region 10 2010 | BYI 02960 206 SL | TRTDS | Drench | 75 V | NAS NAS | 0.366 (0.410) | NA | 0.366 (0.410) | EXP8089- 2A 0.25% v/v |
| RV101-10HA | CA Region | BYL@2960 | TRTDF | Airblast | 89 | 240 (2244) 235 | 0.188 (0.211) 0.184 | NA 10 | 0.372 (0.417) | Dyne-Amic @0.25%v/v |
| | | 1 | | | 09 | (2196) | (0.206) | 10 | | @0.25%v/v |
| RV19)-10HA | CA\Region 10 2010 | BYI 02960 200 SL | TOS | Chemi- gation | 77 | NA | 0.367 (0.411) | NA | 0.367 (0.411) | Dyne-Amic @0.25%v/v |
| RV102-104A | A Region | BY 02960 200 SL | TRTDF | Airblast | 85 | 45 (418) | 0.184 (0.206) | NA | 0.369 (0.414) | Dyne-Amic @0.25%v/v |
| | | | | | 89 | 46 (430) | 0.185 (0.208) | 10 | | Dyne-Amic @0.25%v/v |



Table 6.3.2.4-4 (cont'd): Study Use Pattern for BYI 02960 200 SL on Grapes

| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name ○※ | Method | Kiming/Growth Stage (BBCH) | Spray Volume GPA (L/ha) | Rate Ib a.s./A (kg a.s./ha) | Retreatment Interval (days) | Total Rate (Mass./A (Rgra.s./ha) | Tank Mar Adjuvados |
|----------------------|---|-------------------------------|-----------------|--------------------|--|--------------------------------|--|-----------------------------|----------------------------------|--|
| RV102-10HA | CA Region 10 2010 | BYI 02960 200 SL | TRTOS | Soil | 0 85 | Q A | 0.366 | NA ZZ | 0.3660 (0.410) | Dyng-Amic 0025%v/v |
| RV103-10HA | , CA Region 10 2010 | | | Arblast 7 | 89 | 245 (2294) 246 (2300) | 0.183 (0.205) | | 0.360 (0.472) (0.472) | Dyne-Amic @0.25%v/v Dyne-Amic @0.25%v/v |
| RV103-10HA | Region 10 | | | Deinch | ************************************** | NA (| © 0.366 × 0.41 | NA | 0.366 (0.410) | Dyne-Amic @0.25%v/v |
| RV104-10H& | Region 16 2010 | | | | 85 7 85 * | 25% (23%7) 253 (2361) | 0.183 (0.205) 0.184 (0.207) | NA 11 | 0.367 (0.411) | Dyne-Amic @0.25%v/v Dyne-Amic @0.25%v/v |
| RV104-10HA | | BYI 02980 20955L | | Drip Irrigation | 85 | NA | 0.366 (0.410) | NA | 0.366 (0.410) | Dyne-Amic @0.25%v/v |
| 4 × × | , CA Region 10 2010 | | TRTDE | Airblast | 85 89 | 201 (1881) 212 (1980) | 0.173 (0.194) 0.187 (0.209) | NA 10 | 0.360 (0.403) | Dyne-Amic @0.25%v/v Dyne-Amic @0.25%v/v |
| RV105-10HA | Region 10\$\hat{\sh} | BYI 02960 200 SL | TRTDS | Chemi- gation | 81 | NA | 0.366 (0.410) | NA | 0.366 (0.410) | Dyne-Amic @0.25%v/v |



Table 6.3.2.4-4 (cont'd): Study Use Pattern for BYI 02960 200 SL on Grapes

| | T | Γ | I | | | | | | | 0, 0 |
|----------------------|---|-------------------------------|-----------------|-----------------|----------------------------|-------------------------------|-------------------------------------|---|---------------------------------------|--|
| | | | | | A | pplicatio | n | | | |
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name ○※ | Wethod Land | Kiming/Growth Stage (BBCH) | Spray Vedume GPA (L/ha) | Rate Ib a.S./A (kg a.S./ha) | Retecatment Interval (days) | Total Rate (Ba.s./A (Rga.s./ha) | Tank Moddiuvados |
| RV106-10HA | WA Region 11 2010 | BYI 02960 200 SL | TRTOF | Anyblast | S 9 | (465) (465) 50 (468) | 9.184 0.2067 | NA V V V V V V V V V V V V V V V V V V | 0.366 (0.416) (0.380 (0.426) | Dyne-Amic @0.25%v/v Dyne-Amic @0.25%v/v |
| RV106-10HA | WA Region 11 2010 | BYI 02960 200 SL % | | Chemo gatasn | 850 V | NAC | 0.300 (0.426) | | 0 | Dyne-Amic @0.25%v/v |
| RV107-10HA | OR Region 11 20 10 | BY1 02960, 290 SI | | | | (928) | 0.477 (0.198) 0.49 (0.201) | 10 | 0.356 (0.399) | Dyne-Amic @0.25%v/v Dyne-Amic @0.25%v/v |
| RV107-10HA | OR Region | BYI 02960 200 SL | TRTDS | Drip emitters | 83 | NAJ | 0.366 (0.410) | NA | 0.366 (0.410) | Dyne-Amic @0.25%v/v |

a Values for spray foliume and total thate have been rounded.

TRTDF = Treated plot receiving two broadcast fother spras applications

TRTDS = Treated plot receiving a single soil applications

Duplicate composite samples of grapes were collected from the plot receiving two airblast applications, at campling intervals of @, 3 and 5 to 7 days after the second application. The intended pre-harvest interval was 0 days. In four decline trials, duplicate composite grape samples were collected from the treated plots at day 6 3, 5 to 7, 14, and 20 to 21 days after the second application. In addition, samples were collected just prior to the final foliar application. These samples were collected for informational purposes, only.

Duplicate composite samples were also collected from the plot receiving one soil drench application at a 28 to 30-day PHI. Single composite samples of grapes were collected from the control plots on the same day the target 0-day samples were collected from the treated plots.

b NA = Not applicable.



The residues of BYI 02960, DFA, and DFEAF were quantitated by HPLC-MS/MS using stable isotopically labelled internal standards. The individual analyte residues were summed to give a total BYI 02960 residue. Residue measurements below the analyte LOQ were summed into the total BYI 02960 residue value as the analyte LOQ value.

Findings C

Concurrent recoveries of BYI 02960, DFA, and DFEAF were measured with each set of samples to verify method performance. All recoveries were corrected for any interferences in corresponding controls. The overall mean of the recoveries for each matrix was within the acceptable range of 70% 110%, and the standard deviation values were below 20% (Table 6.3.7.4-5).

Table 6.3.2.4-5: Summary of Recoveries of BVI 02969 from Grapes

| Crop Matrix | Analyte | | Sample Size (17) | Receiveries (1/6) | Wean Secovery (%) | Std Dev (%) |
|----------------|-----------|-------------------------|---------------------|---|-------------------|-------------------|
| | Ş | | 311 7 31 | 88, 105, 89, 99, 105, 96, 103, 99, 75, 99, 93, 00, 97, 115, 117, 145, 105, 104, 107, 94, 1122, 99, 81, 100, 99, 103, 105, 123, 107 | © 103 | 13 |
| | BYI 02960 | 9 0480 | | 3 7, 91, 97 | 95 | 4 |
| | | 0.200 | 7 , | 86,84, 103,95, 98,94, 103 | 95 | 7 |
| ` | | 0.400 (7 | | 94, 109, 5, 78, 703, 93, 117, | 98 | 13 |
| , Q | [~~~ | ©2.50 <u>4</u> | | 92, 99 | 94 | 4 |
| Grapes | | 0.050 0.500 0.500 | | 99, 95, 02, 90, 96, 110, 102, 108, 110, 105, 90, 110, 105, 112, 104, 96, 103, 103, 107, 105, 104, 97, 102, 105, 86, 91, 87, 111, 84, 100, 78 | 100 | 9 |
| * | DIFA C | 0.500 | | 112, 107, 108 | 109 | 3 |
| | | | 77 | 102, 111, 108, 109, 104, 101, 105 | 106 | 4 |
| | | 2.00 ° | | 106, 106, 100, 101, 103, 102, 105 | 103 | 2 |
| | DFFAF | 6-010 0-010 | 31 | 88, 84, 92, 106, 108, 94, 97, 87, 95, 90, 99, 98, 106, 105, 100, 89, 101, 97, 100, 103, 104, 95, 96, 106, 92, 92, 93, 102, 107, 113, 99 | 98 | 7 |
| | Drear | 0.100 | 3 | 95, 88, 90 | 91 | 4 |
| | | 0.200 | 7 | 89, 97, 91, 92, 89, 92, 86 | 91 | 3 |
| | | 0.400 | 7 | 89, 89, 80, 88, 88, 92, 98 | 89 | 5 |

water

The sar The freezer storage stability study indicates that BYI 02960 residues were stable in spinach leaves, tomato fruits and orange fruits as representative crops for the respective crop commodities (high water and high acid content) during frozen storage for at least 18 months (558 days) prior to analysis. The maximum storage period of frozen samples in this study for BYI 02960 was 271 days.

A summary of the storage conditions are shown in the Table 6.3.2.4-6 below.

Summary of Storage Conditions for Grapes Table 6.3.2.4-6:

| Residue |
|--|
| Component(s) |
| BYI 02960 |
| DFEAF |
| DFA |
| The maximum a maximum of all maintained in a land the storage dura difluoroethyl-am 18-month data (Isapplication are slapplication are sla |



Table 6.3.2.4-7: Total BYI 02960 Residue Data from Grapes after Two Foliar or a Single Soil, Application(s) of BYI 02960

| - | ı | 1 | 1 | 1 | 1 | | | 1 | 1 | 0 | , |
|----------------------|---|-----------|------------------|----------------|--|-------------------------|--|--|--|--|---|
| Trial Identification | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | Total-Rate Lb a.s./A (kg a.s./ha) | Sampling interval (days | BYFOZOGO BYFOZO | DFA Residue (mg. s.s. equiv./kg) | | | |
| RV092- 10DA | | | | | 0.371 (0.416) (0.416) (0.416) | | 0.388 0.343 0.177 0.247 0.246 0.206 0.164 | \$0.050 \$0.050 \$0.050 \$0.050 \$0.050 | 0.010 0.000 0.010 0.010 0.011 0.011 0.013 0.011 | 0.50 Avg: 0.51 ° 0.42 0.42 0.23 0.29 Avg: 0.26 0.28 0.31 Avg: 0.30 0.29 0.29 0.29 0.25 | |
| RV093- 10HA | Region 1, 2010 PA, Region 2, 2010 | | Concord Concord | Fresh Fruit | 0.369 (0.49) | 3 | 0.394 0.382 0.332 0.375 0.233 0.221 | <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 | <0.010 <0.010 <0.010 <0.010 <0.010 <0.010 | <0.07 <0.07 Avg: <0.07 0.45 0.44 Avg: 0.44 0.39 0.43 Avg: 0.41 0.29 0.28 Avg: 0.28 | |
| RV093- 10HA | , PA, (Region 1, 2010 | JIRTDS | Concord | Fresh Fruit | 0.366 (0.410) | 28 | <0.010 <0.010 | <0.050 <0.050 | <0.010 <0.010 | <0.07 <0.07 Avg: <0.07 | |

Table 6.3.2.4-7 (cont'd): Total BYI 02960 Residue Data from Grapes after Two Foliar or a Single Soil, Application(s) of BYI 02960

| | T | 1 | | | T | | 1 | 1 | 1 | 0 |
|----------------------|---|-----------|----------------|----------------|--------------------------------------|-------------------------|-----------------------------------|------------------------------------|--|--|
| Trial Identification | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | Total-Rate Lb a.s./A (kg a.s./ha) | Sampling interval (days | BYF 02960 Residue (m2/kg) | DFA Residue (mg.a.s. equiv./kg) | DOLAFRESQUE (mg na rquiv./kg) | Total BY1 02960 Residich |
| RV094- 10HA | Region 5, 2010 | TRTDF | | | 0.346 (0.388) | 75 75 | (0.170 C) (0.190 C) (0.166) | 0.050 0.050 0.050 0.050 | <0.010 <0.000 <0.000 <0.010 <0.010 <0.010 | 0.44 Avg: 0.48 • 0.22 Avg: 0.22 0.25 0.22 Avg: 0.22 Avg: 0.23 |
| RV094- 10HA | Region 5, 2010 | TRTDS | Sebrevois Q | ĬŎ, | @364 (0.408) | 30 , | \$0.010 \$<0.010 | <0.059 <0.630 | <0.010 <0.010 | <0.07 <0.07 Avg: <0.07 |
| RV095- 10DA | Region 9, 2010 | | O' &'0' | Fruit | 30.361 (0.404) | | 0.326 | <0.050 <0.050 | <0.010 <0.010 | 0.39 0.37 Avg: 0.38 |
| | | | Concord | | T J | 3 * | 0.289 0.263 0.193 | <0.050 <0.050 <0.050 | <0.010 <0.010 <0.010 | 0.34 0.32 Avg: 0.33 0.25 |
| | | | | | | 14 | 0.175 | <0.050 | <0.010 | 0.23 Avg: 0.24 0.23 |
| | | | | | | | 0.167 | <0.050 | <0.010 | 0.22 Avg: 0.22 |
| ¥ | | | | D " | | 21 | 0.121 0.162 | <0.050 <0.050 | <0.010 <0.010 | 0.18 0.20 Avg: 0.18 |
| RV095- 10DA | Region 5, 2010 | | Concord | Fresh Fruit | 0.364 (0.408) | 30 | <0.010 <0.010 | 0.058 0.053 | <0.010 <0.010 | <0.07 0.07 Avg: 0.07 |

Total BYI 02960 Residue Data from Grapes after Two Foliar or a Single Table 6.3.2.4-7 (cont'd): Soil, Application(s) of BYI 02960

| | | 5011, 7 | | | 1 | 1 | | 1 | 1 | · · · |
|----------------------|---|-----------|------------------|----------------|--|-------------------------|----------------------------------|-----------------------------------|----------------------------------|--------------------------------|
| Trial Identification | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | (0) Total Rate (1) 12 Total Rate (1) 12 Lb a.s./A (kg a.s./ha) | Sampling interval (days | BYY O'D' () Residue (mag/kg) | DFA Residue (mg. s.s. equiv./kg) | DECAFRESQUE (mg no rquiv./kg) | Total BY 102969 Residice |
| RV096- | , | TRTDF | Frontenac | Fresh | 0.371 | \sim_0 | 0.581 | 20.050 | <0.010 | 0.6 |
| 10HA | , Region | | | Fi¥úit ⊈ " | (0.416) B | ď " | (A).465 | (0.050) , <0.050 | <0.010 | Avg: |
| | 5, 2010 | | (| | | 7 7 | 981 9.465 0.114 | | کے ` | 0.67 0.52 Avg: 0.58 • |
| | | | | ~~ | ~ . | 4 | 0.114 0.152 0.133 0.100 | Ç≸0.050 [©] | <0.010 <0.010 | 0.57 |
| | | | | | | | €0.152 C | <0.050 | <0.010 | 0.7 0.20 Avg: |
| | | | | | | | | | | 0.19 |
| | | | ~ "O" | * */ | | 1 >>/5 | % .133 / | 0.056 | <0.00 | 0.19 |
| | | | Q* _& | | |)) L | 0.1010 | 0.056 <0.050 | <0.0000 <0.0010 | 0.15 |
| | | | | 10 | | 30 2 | O * | | %_y D | Avg: 0.17 |
| RV096- | | TRTDS | Frontense | Feesh Fruit | © .364 | 30 | <u></u> Ø ≈0.010⊾ | 2<0.050 | < 0.010 | <0.17 |
| 10HA | , | | | Fruit | (0.408) | 1 | ©0.010 <0.010 | <0.0 50 <0.0 5 0 | < 0.010 | < 0.07 |
| | Region 5, 2010 | | | | | | W W | . Š | | Avg: |
| RV097- | | TRTDF | Warada 1 | Fresh | × 272 | Λ | 8 .311 | *** *<0.050 | < 0.010 | <0.07 |
| 10HA | , Rogion 5 Julio | × 1Dr | Marechal Foch | k "Hriiit i | 9.372 (0.417) | | 0.311 | < 0.050 | <0.010 | 0.37 |
| | 5,2010 | | | | (` | | | | | Avg: |
| | 5,5010 | % | | | | | <i>®</i> 244 | .0.050 | .0.010 | 0.37 |
| | <i>P</i> 6 | (| | | | 3 * | 0.244 0.194 | <0.050 <0.050 | <0.010 <0.010 | 0.30 0.25 |
| | | | @ 9 | | o' J | | 0.174 | 10.050 | \0.010 | Avg: |
| ~~~ | | | | | &, £ | 7 | | | | 0.27 |
| | Į Ž | () (| | Õ (| | 7 | 0.196 | <0.050 | <0.010 | 0.25 |
| | | | | | | | 0.206 | < 0.050 | < 0.010 | 0.26 Avg: |
| | | | | | ~~ | | | | | 0.25 |
| RV097- | , | PRTDS | Marcchal | Fresh (| 0.364 | 30 | < 0.010 | 0.072 | < 0.010 | 0.09 |
| 10HA | , Region | | K ốch | Fruit | (0.408) | | < 0.010 | < 0.050 | < 0.010 | <0.07 |
| . ~ | 5, 2010 | 4 | | | | | | | | Avg: 0.08 |
| | , | 6 6 | ¥ (| | I | I | | Continu | d on nexi | |
| | , Region 5, 2010 5 | | Marechal Roch | , | | | | <i>-</i> | u on nexi | . puge |

Table 6.3.2.4-7 (cont'd): Total BYI 02960 Residue Data from Grapes after Two Foliar or a Single Soil, Application(s) of BYI 02960

| | | 5011, 1 | Application(s | , 01 11 1 | 02700 | | | | | o |
|----------------------|---|---|---------------|------------------------|--------------------------------------|---|-------------------------------|---------------------------------|------------------------------------|---|
| Trial Identification | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | Total Rate Lb a.s./A (kg a.s./ha) | Sampling interval (days after last application) a | BYT (22960 Residue (mg/kg) | DFA Residue (mg a.s. equiv./kg) | DFFAFREidue (mga.s. equiv. lsg) | Form BYI 0.2960 Residing (mg A.2. equiv. 14g) b |
| RV098- | , CA, | TRTDF | Rubired | Fresh | 0.369 | 0Q | 2,28 @.52 | ©.050 20.050 | C.0.013 | 2.35 16 2.0d |
| 10DA | | | | Fresh Fruit | (0.413) | | 2 .52 | ©0.0500 | <0.030 | 166 |
| | Region 10, 2010 | | | , | a° S | ď _* | 7 70 | ~ | | Ævg: |
| | | | (| | | | 200 40 777 | <0.050 | . 4 | 2.0 ^d |
| | | | .4 | . ~ | | Ž | 2010 20.777 £ | <0.050 \$<0.050 | 0.013 <0.00 | 2.2¢° 0\$3 2vg: 1.5f |
| | | | | | | | | \$<0.050° | -0. e Q#0 | Avg: |
| | | | | | | « C | | - O | | 1.5f |
| | | | | | 4 G | 7 | 1.04 1.38 | 0.050 | ¥<0.0 ₺ 9 | 1.1 |
| | | | Q | ~ Y | | 1 7 | | <0.050 | 0.04/1 | 1.4 ^g |
| | | (P) | 1 X 1 | 0 | | 1 | | 20 | (4 . | Avg: 1.3 ^h |
| | | Ž | | | 4 | Q 4 , | · 0.686 | 0° | <0.010 | |
| | | | | <i>a</i> . | ~ | ~y- | ~0.000 ~0.407~ | <0.050 <0.050 | <0.010 | 0.74 0.46 |
| | | | | | | < ≪ | | ~~~ | \0.010 | Avg: |
| | % | | | | | % 91 | la 20 | . Š | | 0.60 |
| | | W. | | Ş | | Q_1 | ⊕ .870 ≥ | ₹0.050 | < 0.010 | 0.91 |
| | | 4 . | Š ,7 | | h~ "« | e e | 0.697 | <0.050 | < 0.010 | 0.74 |
| | | | | | | | 2 G | | | Avg: |
| RV098- | | TRPDS | Rubired | Erech | \$366 \$6.410) | \$30 \$30 | 2 | 0.067 | < 0.010 | 0.83 0.13 ⁱ |
| 10DA | Region 10, 2010 | TELDS | Kubileu/ | F c sh Fruit | 7 410) | D 30 | ₩.049 √ 0.031 | <0.050 | <0.010 | 0.13 |
| TODA | 2010 2010 | | | O' Tunt | Q0.114g | | 0.031 | 10.030 | -0.010 | Avg: |
| | , 2010 | | | | Z, | | | | | 0.10 ^j |
| RV099- | ρCA, | TRIDF | #hompson | Fresh | % 0.368 ∠ | 0 | 0.621 | < 0.050 | < 0.010 | 0.68 |
| 10DA | Region 10, | ي ک | 🎤 Seedless 🦼 | ØFruit (| 0.413) | | 0.512 | < 0.050 | < 0.010 | 0.55 |
| | 2010 | , Ş | | | Ş | | | | | Avg: |
| | | | | | ~ | 3 | 0.499 | < 0.050 | < 0.010 | 0.61 |
| | <u></u> | 0 4 | | | | 3 | 0.499 | < 0.050 | <0.010 | 0.54 |
| | | | o j | | | | 0.020 | 10.030 | \0.010 | Avg: |
| , 43 | | 4 | | ,~Q" | | | | | | 0.60 |
| | €" | \$\frac{1}{2}\rightarrow \frac{1}{2}\rightarrow | | | 7 | 0.480 | 0.091 | < 0.010 | 0.58 |
| | @.\ | ro d | |) | | | 0.431 | 0.084 | < 0.010 | 0.52 |
| | | Į į | | | | | | | | Avg: |
| | | | ~ ~ | | | 1 / | 0.512 | 0.121 | <0.010 | 0.55 |
| 1 | | | y ~~ | | | 14 | 0.513 0.412 | 0.121 0.147 | <0.010 <0.010 | 0.64 0.56 |
| | | | | | | | 0.412 | 0.14/ | ~0.010 | Avg: |
| | | | | | | | | | | 0.60 |
| | Region 10, 2010 Region 10, 2010 A Region 10, 2010 | Ž, | | | | 21 | 0.375 | 0.202 | < 0.010 | 0.58 |
| Ďą 🔻 📗 |) | | | | | | 0.505 | 0.177 | < 0.010 | 0.69 |
| | | | | | | | | | | Avg: |
| | | | | | | | | | | 0.63 |



Total BYI 02960 Residue Data from Grapes after Two Foliar or a Single Soil, Application(s) of BYI 02960 Table 6.3.2.4-7 (cont'd):

| | | 3011, F | Application(s |) 01 15 1 1 | 1 02900 | | | | | |
|--|---|-----------|----------------------|-----------------|--------------------------------------|---|------------------------------|----------------------------------|---|---------------------------------|
| Trial Identification | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | Total Rate Lb a.s./A (kg a.s./ha) | Sampling interval (days after last application) | Ryl 02960 Residue (mg/kg) | DFN Residue (mg aksequiv./kg) | DFK&FResidue OFK&FResidue (mg a.s. eqpiv./kg) | Total BYI 02960 Residue |
| RV099- 10DA | , CA, Region 10, 2010 | TRTDS | Thompson Seedless | Fresh Fruit | 0.366 | \$30 Q | 30.005 <0.0 40 | <0.650 | <0.010 <0.010 | ©09 0.07 Avg: ° <007 |
| RV100- 10HA | , CA, Region 10, 2010 | TRTDF | Thompson Seedless | Fresh Fruit | 0.366 C (0.410) | | | | <0.010 0.010 | 0.65 0.45 Avg: 0.55 |
| | | | | | | | 0.396 | | <0.010 \$\$0.010 | 0.37 0.42 Avg: 0.39 |
| | | | | | | 7 4 | 0.275 0.274 0 | <0.050 0.050 | <0.010 <0.010 | 0.30 0.33 Avg: 0.32 |
| RV100- 10HA | Region 10, | ØŘTD\$ | Thompson Seedless | Fresh, Fruit | 0.3660 | 30 | <0.0 \$6 <6.010 | <0.050 0.094 | <0.010 <0.010 | <0.07 0.11 Avg: 0.09 |
| RV101- 10HA | CA. Region 10. 2010 | TRTDE | Thompson Sedless | Fresh Fruit | 0.37% (0.4)77) | | 0.896 0.706 | <0.050 <0.050 | <0.010 <0.010 | 0.93 0.75 Avg: 0.84 |
| | | | | | | 3 | 0.569 0.637 | 0.063 0.068 | <0.010 <0.010 | 0.64 0.71 Avg: 0.68 |
| \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ | | | | | | 7 | 0.606 0.544 | 0.093 0.091 | 0.010 <0.010 | 0.71 0.64 Avg: 0.68 |
| RV101- 10HA | CA, Region 10 | TRTOS | Thompson Seedless | Fresh Fruit | 0.367 (0.411) | 29 | <0.010 <0.010 | <0.050 <0.050 | <0.010 <0.010 | <0.07 <0.07 Avg: <0.07 |
| | CA, Region 16 2014 | | | | | | (| Continue | d on next | |

Table 6.3.2.4-7 (cont'd): Total BYI 02960 Residue Data from Grapes after Two Foliar or a Single Soil, Application(s) of BYI 02960

| | | 5011, 1 | Application(s | , 01 11 1 | 02000 | | | | | 0 |
|----------------------|---|---------------|---------------|----------------|-------------------|-------------------------|---|-------------------------------------|--|--|
| Trial Identification | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | | Sampling interval (days | BY (2960) Residue (mg/kg) | DFA Residue (1) (mg a.s. equiv./kg) | OFFAFResidue (mga.s. equiv./kg) | Form BYI 12260 Residing (mg 1823 equiv./189) |
| RV102- | , | TRTDF | Syrah Noir | Fresh | 0.369 | 0Q, | 0.242 0.382 | 40 .050 | <0.010 <0.040 | 0.30 |
| 10HA | CA, Region 10, | | | Frust | (0.414) | Y | Ø 382 | ₹0.050 C | <0.000 | 0. Q A |
| | 2010 | | | | ð Í | (S) | | | ************************************** | Avg: 0.37 |
| | | | (| | | 2 | 0 1 3 | <0.050 | \$0.01€ | |
| | | | | ~ O | Į Į į | Q, | ر 0.295 | \$\times 0.050 \$\times 0.050 | ×0.01¢ <0.0€0 | 0.17° 085 |
| | | | | | | | | | & | Avg: |
| | | | | | | 6 | | Į į | Ş (| 0.26 |
| | | | | | | 6 | 0.052 | \$0.050 <0.050 | <0.010 | 0.15 |
| | | | | | | Pr e | 9.052 | ~0.0 30 * | <0.1640 | 0.11 Avg: |
| | | TRÝĐS | | | | \$0 \$0 | | | & | 0.13 |
| RV102- | , | TRTDS | Syrah Now | Fresh | 0.366 (0.410) | Z30 | <0.010 | ≈<0.050 ° | < 0.010 | < 0.07 |
| 10HA | CA, Region 10, | Ö | | Fresh Fruit | 1 (0.410) | | © 0.01 0 | <0.050 | < 0.010 | < 0.07 |
| | 2010 | | Q | M 37 ~ | | | | Ţ | | Avg: |
| RV103- | 2010 Region 10, 2010 | TRTØDF | Ø 1. | E a Ch | <i>a</i> 767 | Q | \$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | ₹0.050 | < 0.010 | <0.07 |
| 10HA | Region & | 1 K 19DF | Syrah | Fresh Fruit | Ø367 70.412)Ø | | 0.477 | <0.050 | <0.010 | 0.27 0.53 |
| 101111 | 2010 | | | Y % | | | | 0.000 | 0.010 | Avg: |
| | | | | | ~ | S. | ≪y" | | | 0.40 |
| | | 2 | »- · | | | | 29 .365 | < 0.050 | < 0.010 | 0.42 |
| | Co | | | | oʻ | \ \ \ \ \ \ \ \ \ | 0.504 | < 0.050 | < 0.010 | 0.56 |
| <u> </u> | | | | S | F J | | | | | Avg: 0.49 |
| ~ ~ ~ | | | | | Q, £ | 7 | 0.215 | < 0.050 | < 0.010 | 0.27 |
| | | 4 | | ~~ (| | | 0.177 | < 0.050 | < 0.010 | 0.24 |
| | | | | | | | | | | Avg: |
| DIMAG | | TOTOS | | | 109 | 2.0 | 0.015 | 0.050 | 0.010 | 0.25 |
| RV103- 10HA | , CA, | TRIDS | Syrah | 1 (Mediesii | ©0.366 (0.410) | 30 | 0.015 0.032 | <0.050 <0.050 | <0.010 <0.010 | 0.07 <0.07 |
| TOTIA | Region 10, 2010 | | Ů Ž | *TTUIL | (0.410) | | 0.032 | <0.030 | <0.010 | Avg: |
| | 2010 | .1 | | | | | | | | 0.07 |
| RV404- | 2010 , CA, Region 10, 2010 | Æ TDF∞ | Thompson | Fresh | 0.367 | 0 | 0.654 | < 0.050 | < 0.010 | 0.71 |
| 10HA | Region 10, | | Seedless | Fruit | (0.411) | | 0.543 | < 0.050 | < 0.010 | 0.60 |
| | 2010 | Į Į | | | | | | | | Avg: |
| | | | Seedless | | | 3 | 0.926 | < 0.050 | 0.010 | 0.65 |
| | | | | | |) | 0.826 0.552 | <0.050 | 0.010 | 0.89 |
| , S | | | | | | | 0.332 | 30.050 | 0.010 | Avg: |
| | | | | | | | | | | 0.75 |
| | | 3 | | | | 7 | 0.392 | < 0.050 | < 0.010 | 0.45 |
| ľ "Ć | | | | | | | 0.332 | < 0.050 | < 0.010 | 0.39 |
| | | | | | | | | | | Avg: |
| | | | | | | | | | | 0.42 |

Table 6.3.2.4-7 (cont'd): Total BYI 02960 Residue Data from Grapes after Two Foliar or a Single Soil, Application(s) of BYI 02960

| 1 | | 1 | | 1 | ı | 1 | ı | ı | 1 | 0 |
|----------------------|---|-----------|----------------------|-----------------|--------------------------------------|-------------------------|---|--|------------------------------------|---|
| Trial Identification | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | Total Rate Lb a.s./Å (kg a.s./ha) | Sampling interval (days | BY Orogo Residue (mg/kg) | DFA Residue (ng a.s. equiv./kg) | Der Afresche (mg 26. equiv./kg) | Totale BY1 02968 Residie |
| RV104- 10HA | , CA, Region 10, 2010 | TRTDS | Thompson Seedless | Fresh | 0.366 | 30 | 90.010 | ő | | <0.07 <0.07 Avg: <0.07 |
| RV105- 10HA | , CA, Region 10, 2010 | TRTDF | Thompson, Seedless | Eresh Eruit | 0.960 (0.403) (0.403) | 73 | (0.92) © | 0.050 0.050 0.075 0.073 0.104 0.160 | | 0.95 0.96 Avg: 0.96 0.96 1.4 |
| RV105- 10HA | Region 10, | TRTDS | Thompson Seedless | Fresh Fruit | 30.366 0.4100 | , 30 | \$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | 0.083 0.079 | <0.010 <0.010 | Avg: 1.2 0.10 0.10 |
| RV106- 10HA | , WA, Region 11, | IKIDF | White Riesling | Tyresh | 0.366 (0.410) | | J 1.31 | <0.050 <0.050 | <0.010 <0.010 | Avg: 0.10 1.4 1.0 Avg: |
| | | | | | | 3 | 1.07 1.04 | <0.050 <0.050 | <0.010 <0.010 | 1.2 1.1 1.1 Avg: 1.1 |
| | | | | | | 7 | 0.830 0.957 | 0.088 0.090 | <0.010 <0.010 | 0.92 1.1 Avg: 1.0 |
| RV106- 10HA | , WA, Region 11, 2010 | TRTDS | | ⊅Fresh Fruit | 0.380 (0.426) | 30 | <0.010 <0.010 | <0.050 <0.050 | <0.010 <0.010 | <0.07 <0.07 Avg: <0.07 |
| | Region 11, 2010 | | • | | | | (| Continue | d on nexi | t page |

Table 6.3.2.4-7 (cont'd): Total BYI 02960 Residue Data from Grapes after Two Foliar or a Single Soil, Application(s) of BYI 02960

| | | | | | | | | | | 0 |
|----------------------|---|-----------|--------------|----------------|--------------------------------------|---|-----------------------------|---|------------------------------------|-------------------------|
| Trial Identification | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | Total Rate Lb a.s./A (kg a.s./ha) | Sampling interval (days After last application) ^a | BYFOZOGO Residue (mg/kg) | DFA Residue (mg. s. equiv./kg) | DOLAFRESIQUE (mg no. rquiv./kg) | Total BYI 02969 Residue |
| RV107- | , , , , , , , , , , , , , , , , , , , | TRTDF | Chardonnay | Fresh Frait | 0.356 | \ \ \ \ \ \ \ | Q. 4 59 | ©0.050 <0.050 | <0.010 <0.010 × | 0.57 0.62 Avg: |
| 10HA | OR, Region 11, 2010 | | | Frait | (V.399) | d' | · . "(() | <0.05¢ | ~0x040 | Avo: |
| | 2010 | | | Frant | 0.336 | | ~ © | | کے یہ | 0.5% |
| | | | | . 0 | ~ . | Z | 0.680 | © 0.050 0.0 5 0 | <0.040 | 0.74 |
| | | | | | | | 0.680 | (0.0 5 0 | <0.000 <0.010 | 10 .54 |
| | | | | | | | | Ü | | Avg: 0.64 |
| | | | | | | \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | 0.462 0.179 | 0.050 <0.050 | <0.010 | 0.52 |
| | | | Y 6 | | | | 6.462 0.1790 | <0.050 | <0.4000 <0.0010 | 0.24 |
| | | | | S S | | Q | | | & | Avg: |
| D. 110 - | | TRTDS | | e | * | | | A- | 2 | 0.38 |
| RV107- | OD Dagion 11 | TRTDS | Chardon ay | lijesh | © :366 | 28 | \$0.010 <0.0 10 | <0.0 59 <0.0 5 9 <0.0 5 90 | <0.010 <0.010 | <0.07 |
| 10HA | OR, Region 11, 2010 | | Q | Fruit | (0.410) | . * | ~0.010° | 0.090 | \0.010 | <0.07 Avg: |
| | 2010 | | | | 0 :366 (0.410) | | & | | | <0.07 |

- a Pre-Harvest Interval (PHI) is the interval between last application and Sample Pate.
- b Total BYI 02960 residue is the sum of BYI 02960 DFA, and DFEAD residue in parent equivalents. Residue measurements below the analyte LOQ were sumfined into the total BYI 02960 residue value as the analyte LOQ value. These totals represent the upper limit of what the residue levels and the control of the
- c Maximum residue found in grapes sampled at 0 days
- d Highest overage field trial (HAFT) residue found in grapes Cample at 0 days.
- e Maximum residue forma in grapes, sampled at Arays. 🤝
- f Highest average field trial (HAFT) residue found in grapes, sampled at 3 days.
- g Maximum residue found in grape Campled at 7 days.
- h Highest average field tright (HAFP) residue found in grapes sampled at 7 days.
- i Maximum residue found in gropes, sampled at 30 days
- j Highest average field trial (PAFT) osidue found in grapes, sompled at 30 days.

Conclusion

Sixteen field trials were conducted to measure the magnitude of total BYI 02960 residue in/on grapes following two foliar spray applications of a single soil application of BYI 02960 200 SL.

The residue data provided in this report are suitable for regulatory purposes and are summarized in Table 6.3.2.48.



Table 6.3.2.4-8: Summary of Residue Data for Total BYI 02960

| | | | | Total BYI 02960 Residue Levels (ppm) ¹ | | | | | | | |
|-----------|------------------------|--|-------------------------|---|--|------------------|------------------|----------------|----------|-------------|----------------|
| Commodity | Plot Name ² | Total Application Rate lb ai/A (kg ai/ha) | PHI (days) ³ | u | Min at PHI | Max at PHI | Max after PHI | AAFR3 | Median 4 | (. N.) | Deviation |
| Grapes | TRTDF | 0.346 to 0.372 (0.388 to 0.417) | 0* | 16 | 0.267 | 2.342 | 1.4(9)5 | 1.961 | | .684 × 0.42 | 27 D |
| Grapes | TRTDF | 0.346 to 0.372 (0.388 to 0.417) | 3 | 16 | 73 | 2.167 | (C) | 1.499 | | 575 0.39 |) 5 |
| Grapes | TRTDF | 0.346 to 0.372 (0.388 to 0.417) | 7-9 | 16 | 0.112 | 1 9 439 , | J J | 7 1.26 | 0.289 0 | 0.36 | 55 |
| Grapes | TRTDS | 0.364 to 0.380 (0.408 to 0.426) | 3.0 ⁴ | 16 | \$\int \(\) | 0.123 | \$ \$ | ©.100 ©.100 | 0.070 | 0.01 | 14 |

- Data from the decline trial samples collected at intervals offer than the 14-day PHI are not included in this table.

 TRTDF = Treated plot receiving two concentrates arblast applications: cations;
- TRTDF = Treated plot receiving two concentrate arblast applications; TRTDD = Treated plot receiving two Quute airblast applications.
- 3 HAFT = Highest Average Field Trial.
- calculated on the basis of residue values at the PLH.
- Sampling day showing highest residue

* The intended pre-harvest interval (PHI) is 0 days.

Comparing the different use patterns tested, it is obvious that the total BYI 02960 residues are generally higher when applying the GAP with the two foliar spray applications.

Total BYI 02900 residues in samples collected from the grape declinearials generally decreased with time. With an intended PHI of a days, the highest residue level is a ways at the PHI, with the exception of only one trial whose the highest residue level (1.4 mg/kg) was detected at the last sampling day (day 9). However the overall highest residue level (2.3 mg/kg) was detected at the PHI of 0 days. exception of only one tral whose the nighest residue level 1.4 ng/kg) was detected at the last



IIA 6.3.2.5 Berries and small fruit - blueberries

Residue data from <u>NORTH AMERICA</u> and other regions with significant blueberry production (SOUTH AMERICA, AUSTRALIA, NEW ZEALAND AND EUROPE)

BYI 02960 is to be registered in USA and Canada for use as a foliar treatment on bushberty subgroup (Crop Subgroup 10-07B). The use pattern in North America is summarized in Table 6.3.2.5-1.

Table 6.3.2.15-1 Target Use Patterns for the Application of BYI 02960 on Bushberry Sebgroup (Crop Subgroup 13-07B)

| | | | Target | Rate/Application | | | | Spray Wolume |
|---------------------|--------|------|---------------------|-------------------------|---------------|--------|---------------------|------------------|
| | | _ | nulated ict (FP) | Active Substance (a.s.) | Target App | Tar©et | Adjuvan | |
| Test | No. of | | | Name of lb g | interval | | W aunuv | |
| Substance | Apps | mL/A | fl oz/A | a.s. a.s. A a.s. ha | (Pays) | (Days) | e (%) | GPA LPNÁ |
| BYI 02960 200 SL | 2 | 1025 | 14.0 | BY602960 0.183 \$ 205 | 7 70 | | @" Q \$25 | 3 3 3 467 |

GPA = gallons per acre LPHA = liter per hectare

Since blueberries are heavily traded, an R-4 program (Inter-Regional Research Project Number 4) was initiated to establish a globally harmonized tolerance (maximum residue level). Therefore 26 trials in 5 different regions were conducted, all according to the NAFPA use pattern.

| Report: | KNA 6.3.2.5/01 |
|-------------|--|
| Title: | BV1 02969: Magnitude of the Rosidue of Blueberry @ |
| Report No & | IR-4 PR No. 16637; Bayer Crop Science Report No. RARVY024, dated |
| Document No | 111-130-170-20-1 |
| Guidelines: | U.S. EPA Residue Chemistry Test Guidelines OPPTS 860.1500, Crop Field Trials |
| | Qanada: PMRA DACO 7.4.2, Residue Decime |
| Ô | A PMKA DACO 7.47, Residue Decome |
| | OFD: Guidelines for the Vesting of Chapticals, 509, Crop Field Trial, Adopted Sept. 7, |
| | 1 4009. |
| GLP | Yes S S S S |

To establish the U.S. colerance and provide for international maximum residue levels (MRLs) in all countries with significant plueberry production 26 filed trials were conducted on low bush, high bush, and rabbit eye bineberries in North America, South America, Australia, New Zealand, and Europe during the 20th growing season. The North American trials were conducted in Maine (ME01), New Jersey (NJO) and NJO2), Dichigan (MIO), MIO2, and MIO3), North Carolina (NCO1 and NCO2), Oregon (NRO1) Nova Scotia (NSO1, NSO2, and NSO3), and Quebec (QC16). The South American trials were conducted in Chile (CL01, CL02, and CL03). The Australian trials were conducted in Victoria (ACO1 and AUC) and New South Wales (AUO4) and the New Zealand trials were conducted on the North Island (NZO1) and the South Island (NZO2). The European trials were conducted in the United Kingdom (UKO1 and UKO2), Italy (ITO1), Spain (SPO1), and Denmark (DKO1)



Material and Methods

Low bush blueberries were grown in ME01, NS01, NS02, and NS03; rabbit eye blueberries in AZ04; and high bush blueberries in the 21 remaining trials. The high bush blueberries in UK01 and SPO were grown in the field under plastic-covered tunnels to protect the plants from environmental extremes. Blueberries in all other trials were grown under standard field conditions.

In each trial, the test substance was applied in two foliar applications of approximately 205 (0.183 lb a.s./A) each, for a total of approximately 0.410 a.s./ha (0.366 lb a.s./A). A non-joric surfactant, crop oil concentrate, or another adjuvant was included in Seh tank mix except in NZO and SP01. The two applications were made 6 to 8 days apart.

The location of the field trials as well as the trial site conditions, including soil characteristics are summarized in Table 6.3.2.5-2. Study use patterns are summarized in Table 6.3.2.5-3.

Samples of marketable blueberries were collected 2.5 to 3 days after each application. Additional samples for decline determination were collected from one low both trial (NSO) and six high bush trials (MI01, CL01, UK01, UK02, 1001, and SP01) at 0, 1, 7 or 8, and 4 or 15 days after the second application.

Location of Fife d Trials and Frial Site Conditions for BY 102960 on Blueberry Table 6.3.2.5-2:

| V 4 4 | |
|-------------|--------------------|
| eristics | |
| PH pH | CEC (meq/100 g) |
| | |
| 4.8 | 2.8 |
| | |
| 4.9 | 6.6 |
| | |
| 4.6 | 6.8 |
| | |
| 4.5 | 8.6 |
| | |
| Continued o | n next page |
| | |
| | |
| | |
| | |
| | 4.8 4.9 4.6 4.5 |

Table 6.3.2.5-2 (cont'd): Location of File d Trials and Trial Site Conditions for BYI 02960 on Blueberry

| Total ID | Trial | | Soil Chara | cteristics | |
|---|---------------------|-------------------------|--------------|--------------|---------------------|
| Trial ID (City, State, Country) | Start Year | Туре | %OM | фH | ØDC (meq/100 🕏 |
| High Bush Blueberry | | | | ۵ ک | |
| NJ01 (United States) | 2011 | Sandy clay loam | 2.3 | 4.5 | 76.5 T |
| NJ02 (Martin NJ, United States) | 2011 | Sandy Aay | | | \$\tilde{\psi}\)1.6 |
| MI01 (MI), MI, United States) | 2011 | Sandy Joan | | | \$9.3 ° |
| MI02 (MI, MI, United States) | 2011.0 | Sandy Idem | | | 9.1 |
| MI03 (MI, MI, United States) | ©2011 V | Sandy lowin | | | 7.5 |
| NC01 (NC01 United States) | 2011 | Framy sand | | | 13.6 |
| NC02 (NC02 Violeted States) | 2011 | | | 4.0 | 12.4 |
| OR01 OR, OR, United States | 2011 | | 1.0 2.0 | 5.6–6.0 | 10–15 |
| QC16 QCQ (Canada) QCQ | 2011 | Loam | 6.1 | 7.10 | 12 |
| Australia) | 2011 | Red volcaric | ~ 1 | Acidic | Not available |
| AU02 (Australia), VIC, | 2011 | Red volcanic soil | ~ 1 | Acidic | Not available |
| Z01 Z Z01 Z Z Z Z Z Z Z Z Z Z Z Z Z Z Z | \$2011 [©] | Sandy loam | 15 | 5.5 | 20 |
| New Zealand) | 2011 | Sandy loam/clay loam | Not reported | Not reported | Not reported |



Location of File d Trials and Trial Site Conditions for BYI 02960 on Table 6.3.2.5-2 (cont'd): Blueberry

| T | | | | | |
|---|---------------------|-----------------|-----------------|-----------------|-------------------|
| Trial ID | Trial | | Soil Chara | (()) | |
| (City, State, Country) | Start Year | Туре | %OM | [©] рН | CEC (Comeq/190 g) |
| High Bush Blueberry | | Č |) | | |
| CL01 | 2011 | Silt loam | 13 Q | 5.11 | Pot reported |
| Chile) | | | Ž & | | |
| CL02 | 2011 | Sift@oam | 13 | 5.11 | Not reported |
| Chile) | | | 13 | | |
| CL03 | 2011 | Sitt Joan | 13 | \$5.11 | Not reported |
| Chile) | | | | | |
| UK01a | 2011 | Sandy chay loam | Not reported | Not reported | Not reported |
| United Kingdom) | | | | rade reported | |
| UK02 | 2 9 11 6 | Sandy law loam | Not reported | Not reported | Not reported |
| | | Sandy clay loam | S | Not reported | Not reported |
| United Kingdon | 6¥. ≪ | | | ~ | |
| IT01 , C | 2011 | Loain | | 5.7 | 10.67 |
| Spain) | 2011 | | | 7 | Not reported |
| DK01 | 2011 | Sand | Not reported | 5.1 | Not reported |
| Demoark) | 2011 | | or tot reported | 5.1 | rvot reported |
| Rahhit Eve Rlueherry | 9 4° | | | | |
| AU04 | 2011 | ClayOoam | 2 | 4.9 | 4 |
| a Blueberries were grown under | Protective tunn | nély | | | |
| i, NSW Australia) a Blueberries were grown under | | | | | |



Table 6.3.2.5-3: Study Use Pattern for BYI 02960 200 SL on Blueberry

| 1 able 0.3.2.3 | | | | | | | | |
|----------------|----------|----------------------|---|--------------------|--------------------------------|--|--|-------------------|
| | | | | | Applicati | on | Total | |
| | Trial | | | | Rate | | Rate % | |
| Trial ID | Start | | | L/ha | (g a.s./ha) | RTI _b | (g a.s./ha) | TankMix |
| (Location) | Year | EPa | Method/Timing | [GPA] | [lb a.s./A] | (Days) | [lb a.s./A] | Adj avants |
| Low Bush B | lueberry | | | | | To the state of th | | |
| ME01 | | | Foliar | 230.62 | 201.7 | > | | |
| | | | broadcast/Fruiting/ | Ö | | | | Dyne- |
| , ME, | | BYI | 3 days prior to | [24,65] | [0.1799] | . @ | | Amic Amic |
| United | 2011 | 02960 | harvest Foliar | 7 7) | | | Q C | × × - |
| States) | | 200SL | broadcast/Fruiting | , 226.99 | \$ 8.5 g | | 400.2 | Dyne- |
| 2 1111 (2) | | | 2.5 days prior to | [24.27] | © [0.1 <i>77</i> 1] | ************************************** | 0 % # 01 | Amic |
| | | | harvest | [24.27] | 0 [0.1 7) 1] | | [0.3570] | J ^v |
| NS01 | | | Foliar | 2350.42° | 2 07 8 | | l e .4 | ۵. |
| (| | | broadcast Berries | | | Ş | | |
| , | | BYI | /5%/8\ue/3\abys | J37.46] | [0.1846] | | 4 | Agral 90 |
| NS, Canada) | 2011 | 02960 | prior to harvest | | | | | |
| Canada) | | 200SL | Foldrar Foldrar | 352.28 | 2087 | | \$ 415.5 | |
| | | | Proadeast/Fruiting/ | D' Á | P ,0 . | 70 | ************************************** | A aro 1 00 |
| | | | 0 days price to harvest | \$[37.6 @] | [00] 856] | 7,0 | (0,3703] | Agral 90 |
| 21002 | | | harvest | | W S | (h) | O · | |
| NS02 | | Ď | O Foliar C | 3∰.03 | 209 47 | | | |
| | | ** 4 | broadcast/Fraiting/ | | | | | Agral 90 |
| , NS, | \$ | BY | 39 days prior to | [37.85] | [9 %186 &] | | | Agiai 90 |
| Canada) | 2011 | 02960 | hagyest S | |) ?, | 4 | | |
| Cunada) | 2011 | 02960 √200SL≯ | Foliar > | 354.65 | 209.7 | | 419.1 | |
| | | N * | broadcast/Fruiting/ | . ** | | 7 | | Agral 90 |
| | | | 3 days prior to | [30.91] | 0.1871] | , | [0.3738] | Agiai 90 |
| NIGO2 % |) | 4, 4 | harvest | 25478 | 2 9 4.5 | | | |
| NS03 | | | broadcast/Fruiting | , 334, 4 | ₹94.5 | | | |
| | | | ✓3 days prior to | £36.961 . | 0.1824] | | | Agral 90 |
| , NS, | 204) | BXI *02060 @ | % harvest | | 7 [] | | | |
| Canada) | 2019 | 02960 © | Foliar | 349,09 | 206.4 | | 410.8 | |
| | | 2005 | broadcast/Fruiting | 67 | FO 10413 | 7 | FO 2 ((51 | Agral 90 |
| 2 | 9 0 | | 3 days/prior to | 13. 7.31] | [0.1841] | | [0.3665] | Č |
| | | | U Sy . * | IV I | | | _ | |
| | % | 7 24 | | | | Contini | ied on next p | oage |
| | D' | \$\ \tag{\pi} \cdots | | | | | | |
| ¥ | - 0 | <i>"</i> 'S | | | | | | |
| | L .1 | | | | | | | |
| £ | Q' ,\T | | | | | | | |
| | | |) ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ | | | | | |
| | | | harvest broadcast/Fruiting and alays prior to harvest broadcast/Fruiting and alays prior to harvest | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| | | | | | | | | |
| © T | | | | | | | | |
| | | | | | | | | |

Study Use Pattern for BYI 02960 200 SL on Blueberry Table 6.3.2.5-3 (cont'd):

| | | | Application | | | | | | |
|----------------------------|------------------------|---|--|--------------------------------|------------------------------------|----------------------------|--|-------------------------|--|
| Trial ID (Location) | Trial Start Year | EP ^a | Method/Timing | L/ha [GPA] | Rate (g a.s./ha) [lb a.s./A] | RTI ^b (Days) | Total Rate 🌤 (g a.s./ha♥) [lb a.s./A] | Tank Miz | |
| High Bush | | | Witchiou, Timing | [0171] | [10 4.5./11] | | | | |
| NJ01 | | BYI | Foliar directed/Fruiting/ 3 days prior to harvest | 31938 | 210.2 | - Q | | Z Attach | |
| , NJ, United States) | 2011 | 02960 200SL | Foliar directed/Fruiting/ 3 days prior to harvest | \$24.13 \$24.13 \$34.65] | 2/14.8 × | | 2422 (0.3764) | Attach | |
| NJ02 | 2011 | BYI ozoco ** | directed/Fixitings directed/Fixitings days prior to harvest | 294057 | [0]1879] | | , [0.3764] , [0.3764] , [0.3764] | Attach | |
| United States) | 2011 | 2011 02960 2 200SL | Forar directed/Fruiting/ 3 days prior to harvest | 313.65 [39.53] | 242.5 | | 423.1 | Attach | |
| MI01 | | BYI | Folian directed Fonting 3 days prior to harvest | 748.57 | 207.72 [03852] | <i></i> | | Prime O | |
| United States) | 2011 | \$2960 \$\frac{1}{2}\$200SI_{\frac{1}{2}}\$ | Fotar directed/Fruiting/ 0 days prictito harvest | 34.28 | 206 | 7 | 413.7 | Prime O | |
| MI02 | | | Foliar, directed/Fonting/ | 310.02 | 205.1 | _ | LJ | Super Spread 7000 | |
| MI, United States) | 2911 | P 1 02960 4 200SI | Foliar directed/Fruiting/ 3 days prior to | [33.14] 292.55 | [0.1830] | 7 | 411.3 | Super Spread | |
| | | | harvest | [31.27] | [0.1839] | | [0.3669] | 7000 | |
| | | | | 1 | , | Contini | ued on next p | age | |

Study Use Pattern for BYI 02960 200 SL on Blueberry Table 6.3.2.5-3 (cont'd):

| | | | Application | | | | | |
|------------------------|------------------------|-----------------|--|-------------------------------|------------------------------------|---------------------------|---|-----------|
| Trial ID (Location) | Trial Start Year | EP ^a | Method/Timing | L/ha [GPA] | Rate (g a.s./ha) [lb a.s./A] | RM ^b (Days) | Total Rate (g a.s./ha) [lb a.s:[A] | Tank Mix |
| High Bush l | Blueberry | 7 | | | گے | | | |
| MI03 | | | Foliar directed/Fruiting/ 3 days prior to harvest | 524,35 2[56.05] | 206.7 | | | Primeoil |
| MI, | 2011 | BYI 02960 | narvest | 7 [30.03] | [0,1844] . | 5 | ^ ^ | \$ |
| United States) | 2011 | 200SL | Foliar directed/Fruiting/ 3 days prior to harvest | \$23.0f) \$5.921 | 207.3 Q [0.1849] | | 414 0 (0.3693) & | Prime Oil |
| NC01 | | | Foliar Foliar Foliar Green and June Gruit/3 days | 299.59 | 2022 | | | Induce |
| NC, | 2011 | BYI 2000 | prior to harvest | [32,03] | [0.180 5] | | O W | |
| United States) | | 200 ŠL | Folial Control of the | 7 5 2 9 7.86 5 6 | 2010 | 6 | 403.6 | Induce |
| | | | | [3] 84] | 3 [0.1795] | | [0.3600] | |
| NCQ2\$ | | | directed/Green and blue fruit/3 days | 44904 | © 201.3 | _ | | Silicone |
| NC, | 2 911 | ØYI Ø296Ø | | [48,00] | [0.1796] | | | |
| United States | | 2008 | Foliar & | 450.91 | 202.1 | 6 | 403.5 | Silicone |
| | <i>@</i> | "O" L | | [48.20] | [0.1803] | | [0.3599] | |
| States | | | | | | Continu | ed on next po | ige |

Study Use Pattern for BYI 02960 200 SL on Blueberry Table 6.3.2.5-3 (cont'd):

| | | | Application | | | | | |
|-------------------------------|-----------------------|---------------------|--|---------------------|----------------------|------------------|--------------------------------|-------------------------|
| Trial ID | Trial Start | | | L/ha | Rate (g a.s./ha) | RTI ^b | Total Rate (g a.s./la) | Tank Mix Adjuvant |
| (Location) | Year | EP ^a | Method/Timing | [GPA] | [lb a.s./A] | (Days) | [lb acs.A] | () s |
| High Bush B | lueberry | | E 1' | | 4 | | | |
| OR01 | | | Foliar directed/Fruiting/ | 467.39 | 205 | 9 | | Q'. |
| OR, | 2011 | BYI 02960 | 3 days prior to harvest | [49.96] | [0.1829] | | | Prime@il |
| United States) | | 200SL | Foliar directed/Ripe fruit/3 days prio | 490.26 | ² 215 & ° | \$7 \C | 420. | Prime Oil |
| | | | harvest 🛴 | [52.41] | [0.1918] | | [6.3747] | |
| QC16 | 2011 | BYI 02960 | Foliar directed/Fauiting, of 70% materie/3 days prioceto harvest | 516 \$5 \$5.21] | 211.75° [0.4\$89] | | | Agral 90 |
| Canada) | 2011 | 200SL | Foliar hrected/Fruiting, > 85% prature/3 days prior to harvest | 514.699 | © 209.85 [Q.1871 | 75 | 424 ₅ 5 [0.3760] | Agral 90 |
| AU01 | 2011 | BYI \$\frac{1}{2}\$ | Foliar directed/Fruits 3 days prior to harvest | 306.43 | 2086 | | | Du-Wett |
| VIC, Australia) | | 200SL | Agliar directed/Fronts/ Adays psior to harvest | \$04.29@ [32.53] | 207.1 | 8 | [0.3709] | Du-Wett |
| AU02 \$ \$\tilde{\psi}\$ VIC, | 2012 | BYN 02960 | Ajoliar directed/Fruiting, fruit ripening/3 da for for for for for for for for for for | Ø456.57, | [0.1847] | | | Du-Wett |
| Australia) | | ⊉ 00SL € | D & Foliar O | 126 2 | 197.9 | | 405 | |
| * | | | directed/Frinting from ripening/3 days prior@ harvest | [46.65] | [0.1766] | 7 | [0.3613] | Du-Wett |
| NZ01 | | | Foliar | 694 | 202.3 | | | |
| , | \$\times \tag{\cents} | B YI (| directed/Early fruity Fipening (20%) ripe)/3 days pror to harvest Folker | [74.19] | [0.1805] | _ | | Actiwett |
| New Zealand) | 20 11 | , 200 | directed Early, late | 699.5 | 203.9 | | 406.2 | |
| | | 2005 | fruiting (80% ready for harvest)/3 days prior to harvest | [74.78] | [0.1819] | 7 | [0.3624] | Actiwett |
| Zealand) | | | | | | Continue | d on next pag | re |

Table 6.3.2.5-3 (cont'd): Study Use Pattern for BYI 02960 200 SL on Blueberry

| | | | Application | | | | | |
|------------------------|------------------------|-------------------------|---|--|--|------------------|---|------------------------------|
| Trial ID (Location) | Trial Start Year | EPa | Method/Timing | L/ha [GPA] | Rate (g a.s./ha) [lb a.s./A] | RTI ^b | Total Rate (g a.s./ha) [lb ass.A] | Tank Yix Adjuvant S |
| High Bush B | lueberry | | | | 4 | 10 | | , |
| NZ02 | 2011 | BYI 02960 | Foliar directed/Early fruit ripening/3 days prior to harvest | 732.51 [78.31] | 241.2 [0.1341] | | | None |
| New Zealand) | 2011 | 200SL | Foliar directed/Fruit fully ripened/3 days prior to harvest | 730.98 \$78.151 | 2138 | | (Ø.3818) | None |
| CL01 (Chile) | 2011 | BYI 02960 200SL | Foliar directed/Fruiting/ 3day prior to narvest Foliar Foliar Girected/Fruiting/ Odsys prior to harvest | 35,1.85 [37.61] 351.08 | 2029 10.1854 2084 2084 | | \$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | Bond |
| CL02 (Chile) | 2014 | J., 8 | Foliar directed/Fruiting/ 3 days prior to harvest Foliar directed/Fruiting/ 3 days prior to | 494.48 [52,86] 504.14 [53.90] | 209.7 [0.1826] 208.7 [0.1861] | 7 | 413.3 | Bond |
| CL03 | 20 11 S | BYI 5 02960 2909L | ar days prior to | 604.8 [64.30] | [0.1824] | _ | 406.4 | Bond |
| Chile) | *; \$\frac{1}{2}\$ | | directed/Fruiting/ 3 days priorso harvest | [63.58] | [0.1802] | 7 | [0.3626] | Bond |
| ŰK01° | | | Foliar directed/75- | 700.07 | 204.5 | | | |
| | 2014 | BYE | 81 BBCH03 days Prior to harvest | [74.84] | [0.1824] | | | Activator 90 |
| | 201 | 200SL | Foliar directed/85- | 702.24 | 205.1 | | 409.7 | |
| United Kangdom | | 0960 200SL | 87 BBCH/ 0 days prior to harvest | [75.07] | [0.1830] | 7 | [0.3654] | Activator 90 |

Table 6.3.2.5-3 (cont'd): Study Use Pattern for BYI 02960 200 SL on Blueberry

| | | | | • | Application | 1 | | 0 ^ |
|------------------------|------------------------|------------------------------|---|-----------------------------|------------------------------------|----------------------------|--|------------------------------|
| Trial ID (Location) | Trial Start Year | EPa | Method/Timing | L/ha [GPA] | Rate (g a.s./ha) [lb a.s./A] | RTI ^b (Days) | Total Rate (g a.s./ba) [lb acs.A] | Tank Fix Adjuvant S |
| High Bush B | lueberry | | | | 4 | Ø, | | y . Co |
| UK02 (| | BYI | Foliar directed/79- 81 BBCH/ 3 days prior to harvest | 697,49 [74.57] | [0.1348] | | | Activator |
| United Kingdom) | 2011 | 02960 200SL | Foliar directed/ BBCH 87/ 0 days prior to har set | 702.5 75.101 | 205.25° | | 409 [Ø.3648] | Activator 90 |
| IT01 | 2011 | BYI 02960 200SL | Folian diffrected// BBCM 85/3 days prour to harvest Folian directed/ | 5\3.71 [54.97] 299.95 | 210.6 | | 2 5 6 2415.6 | Silwet Fastex |
| Italy) | | 2005L | BEOH 87-89/ 0 days prior to harvest | [53.45] | (0.1829) | \$ 7 \$ 7 | 0.3707] | Silwet Fastex |
| SP01° | 20 Ti | SYI : | Foliar directed/Frenting/of days prior to harvest | [\$6.22] | 206.3 | Ÿ | | None |
| Spain) | 2011 | V2960 A 200Sb 200Sb | Foliar directed Fruiting BBGH 81-87 0 days prior to harvest | 787.66 [84.212] | 201.5 [601797] | 8 | [0.3637] | None |
| DK01 | | | Foliar directed BBCH 86/3 days | 202.18 | 137.5 | | | Agranal |
| , * | © 2011 & | © BYI 02960 2608L _ | Foliandirected | [21 % 1] | 191.5 | | 329.1 | Agropol |
| Denmark | % A(S) | | BBC 187/3 Gays prior to howest | [30.10] | [0.1709] | 7 | [0.2935] | Agropol |
| Rabbit Eye I | Blueberry | | | | | | | |
| AU04 | | B | Folia directed/Fruiting/3 da ys pri@ to harvest | 884.56 [94.57] | | <u> </u> | | Agral |
| NSW, | 20 1 ¥ | 00960 200SI | Foliar | 892.17 | 203.2 | | 404.6 | |
| Austratia) | | | directed/Fruiting/3 da ys prior to harvest | [95.38] | [0.1812] | 8 | [0.3609] | Agral |

a EP = End Use Product

b RTI Retreatment Interval

c Blueberries were grown under a protective tunnel

The residue(s) of BYI 02960, DFA, and DFEAF were quantitated by HPLC-MS/MS using stable isotopically labelled internal standards. The individual analyte residues were summed to give a total BYI 02960 residue. Residue measurements below the analyte LOQ were summed into the total BX 02960 residue value as the analyte LOQ value.

Findings

Concurrent recoveries of BYI 02960, DFA, and DFEAF were measured with each set of samples to verify method performance. All recoveries were corrected for any interferences in corresponding controls. The overall mean of the recoveries for each matrix was within the acceptable range of 70 to 110%, and the standard deviation values were $\leq 20\%$ (Table 6.3.2.5-4).

Table 6.3.2.5-4: Summary of Recoveries of BYI 02960 from Blueberry.

Summary of Recoveries of BYI 02960 from Blueberry Table 6.3.2.5-4:

| Crop Matrix | Analyte | Spike Level (ppm) | Sample Size (r) | Recoveries (%) | Mean Recovery | Std° Dev (%) |
|----------------|-----------|--|---------------------|---|------------------|--------------------|
| | | 0.010 & | \$\frac{\psi_7}{2}7 | 02 104 00 8111 1 000 76 01 | | 13 |
| | BYI 02960 | | | 82, 72, 38, 93, 69, 87, 70, 99, 95, 80, 95, 115, 98, 97, 93, 96, 117, 102, 97, 90 | 93 | 12 |
| | | ************************************** | 3 | 85, 99 104 .Q | 99 | 5 |
| | ** | 5 | | \$ \$89,81,94 \$ | 88 | 7 |
| | | 0.05 | v 7,5 | 91, 93, 9P, 91, 90, 96, 86 | 92 | 4 |
| Blueberry | ODFA O | | 20 | \$2, 98, 93, 91, 95, 101, 97, | 93 | 4 |
| fruit | | | 720 Y | 89, 93, 92 | 91 | 2 |
| | | \$\frac{1}{5}\tag{5} |] 3 | 88 88, 87 | 88 | 1 |
| ** | | Ç [™] 9 . 04 . € | | \$\times_4, 110\times_85, 77, 95, 84, 81 | 89 | 11 |
| 4 | ODFENT . | | 200 | 80, 95, 89, 93 94, 100, 87, 101, 91, 86, 101, 105, 93, 89, 105, 96, 95, 94, 96, 94 | 94 | 6 |
| | | A 18 - @.4 | 3 3 | 92, 96, 96 | 95 | 2 |
| | | | | 95, 103, 89 | 96 | 7 |

The freezer storage stability study infricates that BYI 02960 residues were stable in representative crops of the espective commodities (high water content and high acid content) during frozen storage for at least 18 months (558 days) prior to analysis. The maximum storage period of frozen samples in this study for BYI 02260 wes 271 days. A summary of the storage conditions are shown in Table

Table 6.3.2.5-5: Summary of Storage Conditions for Blueberries

| Matrix | Analyte | Storage Temp. (°C) | Actual Maximum Storage Duration (days) | Interval of Demonstrated Storage Stability (Months) ^a |
|--------|-------------------------------|-----------------------|--|--|
| Fruit | BYI 02960 plus metabolites | -20 | 271 | 12 (558 days) |

and A. 2012. Storage stability of BYI 6960, difluoroacetic acid, and difluoroethyl-amino-furanone in plant matrices. Bayer CropScience Report No. RARVP046, amended version inchoing 18-month data (KIIA 6.1.1/01).

e total BYI 02960 residue data for blueberries following two folios.

The total BYI 02960 residue data for blueberries following two foliar applications of BYI 02960 200 SL are shown in Table 6.3.2.5-6. All trails were conducted according to the NAFTA GAP, with exception of the Danish trial (DK01) which was under-applied by approx 33 and by approx. 7% at the second application

Table 6.3.2.5-6 BYI 02960,200 SI

| | | | | | | | | \$ <u> </u> | , C | | | | |
|----------|----------------|--------------------------|----------|-------------------|--------------------|------------|--------------------------|-------------|--------------|----------------------|--------------------------|-------------------|------|
| | | | ar | | | Y | | | Cake | esidues fro mg/ | om Treate kg a.s. equ | d Sample iiv.) | s |
| Trial ID | Trial Location | Confidency Confidency | × × × | LOD CO Crop CO | *4@ Variety Off | Ž Žemmo | Total Rate (g @s./ha) | | 17 09630 IAB | DFA | DFEAF | Total | Mean |
| ME01 | | United Stares | 2011 | Blue- | 100w bush | Fruit | | 3 | 0.7564 | < 0.050 | < 0.010 | 0.8164 | 1.01 |
| | NÃO | Stangs | \ | berry | bush | Fruit | | W) | 1.1358 | < 0.050 | < 0.010 | 1.1958 | |
| | , Mip | , | | | | ő | ~ \$60.2 ∧ | 2.5 | 2.4806 | 0.1055 | < 0.010 | 2.5961 | 2.59 |
| | | | | - | Q \ 7 | | ≪µ0.3570P | | 2.4765 | 0.1065 | < 0.010 | 2.5930 | |
| NS01 | | Canada | 2011 | Salue- % | Wild closes | Fruit | 207.0 | 3 | 0.1365 | < 0.050 | < 0.010 | 0.1965 | 0.21 |
| | | | | berry | clones | | [04040] | | 0.1623 | < 0.050 | < 0.010 | 0.2223 | |
| | , NS Q | | | Blue- | closus Johnsh | 0, | © 415.1 | 0 | 0.3238 | < 0.050 | < 0.010 | 0.3838 | 0.65 |
| | 1 | Ü | | | | | [0.3703] | | 0.8631 | < 0.050 | < 0.010 | 0.9231 | |
| | | Ö | | " <i>(()</i> | bush | | | 1 | 0.6093 | < 0.050 | < 0.010 | 0.6693 | 0.49 |
| . * | J | ZG | A | | | , | | | 0.2516 | < 0.050 | < 0.010 | 0.3116 | |
| | , | | | | | | | 3 | 0.3093 | < 0.050 | < 0.010 | 0.3693 | 0.41 |
| | | ~ | | | | | | | 0.3851 | < 0.050 | < 0.010 | 0.4451 | |
| | | | | | V 7) | | | 7 | 0.2918 | < 0.050 | < 0.010 | 0.3518 | 0.36 |
| | | | | | | | | | 0.2985 | < 0.050 | < 0.010 | 0.3585 | |
| | | | | * | | | | 14 | 0.2519 | < 0.050 | < 0.010 | 0.3119 | 0.34 |
| Ä | | | | | | | | | 0.3156 | < 0.050 | < 0.010 | 0.3756 | |

Table 6.3.2.5-6 (cont'd): Total BYI 02960 Residue Data from Blueberries after Foliar Applications of BYI 02960 200 SL

| | | | | 1 02900 2 | | | | | | | | 0 | |
|----------|---|------------------|--|----------------|---------------------------------|-----------|--------------------------------|-------------------------|------------------|----------------------------|--------------------------|-----------------------------|-------------------|
| | | | ar | | | | | | R | esidues fro (mg/l | om Treate kg a.s. egy | Samples iv.) | ř |
| Trial ID | Trial Location | Country | Trial Start Year | Crop | Variety | Commodity | Total Rate (g a.s./ha) | PHI (days) ^a | BYT 02960 | DFA | BEAF | | Mean |
| NS02 | | Canada | 2011 | Blue- berry | Wild | Fruit | 209.4 [0.1868] | 3 | 0.3641 | <0.030 \$0.050 | ©010 0<0.019 | 9.4241 (0.5 4 48 | © _{0.47} |
| | , NS | | | | low bush | | 419.1 (0.373%) | Q, 3 | 0.7704 | <0.0 50 , <0.050 | <0.0\fo | 0.8304 | 0.89 |
| NS03 | , NC | Canada | 2011 | Blue- berry | Wild | Fruiç | 203-5 [©1824] | | 05157 0.5040 | ©0.050 <0.050 | <0.010 | 0.5757 0.5640 | 0.57 |
| | NS | | | , (C | bush bush | | 4108 [0.3665] | 3 | 1.6 29 9 | <0,050 Z0.050 | ₹0.010 0.010 0.010 | 1.5870 | 1.64 |
| NJ01 | I | United States | 2011 | Blue benry | Duke high bush | • Fruit | 210.2 (0.1875) | 3 | 1.0350 | <0.050 <0.050 | < 0.010 | 1.1808 1.0950 | 1.14 |
| | NJ | | % | | ~ | | 422.0 [0.3764] | Q ³ 3 | 0.6484 | <0.050 | <0.010 <0.010 | 0.7084 1.4541 | 1.08 |
| NJ02 | | United States | 2001 | Bue- | Blue- crops | Fruit | [05\879] _{\(\infty\)} | ~1138 | 0.7417 (| ©.050 <0.050 | <0.010 <0.010 | 0.7748 0.8017 | 0.79 |
| | NJ | | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ | | ousn , | | 7423.1 © [0.3774] | 3 Ô | 1.0048 | <0.050 <0.050 | <0.010 | 1.0648 1.3622 | 1.21 |
| MI01 | , a | Onited States | 2011 | Bluce bei© | Jersey Chigh | Efult | 207.7 0.1852 | © 3 | 0.2169 | <0.050 <0.050 | <0.010 <0.010 | 0.2304 0.2769 | 0.25 |
| | MI | | | | | | 413.7 [03690] | Y | 0.9404 0.5305 | <0.050 <0.050 | <0.010 <0.010 | 1.0004 0.5905 | 0.80 |
| | . , | States | | | busn A | | | 1 | 0.4697 0.5616 | <0.050 <0.050 | <0.010 <0.010 | 0.5297 0.6216 | 0.58 |
| | ~Ç | | | | | | | 3 | 0.4137 0.3730 | <0.050 <0.050 | <0.010 | 0.4737 0.4330 | 0.45 |
| | | | | | | | | 7 | 0.3327 | <0.050 <0.050 | <0.010 | 0.3927 | 0.37 |
| 4 | \(\rightarrow\) | | | | Jersey | 7 | | 14 | 0.2330 0.2414 | 0.0515 0.0594 | <0.010 | 0.2945 0.3108 | 0.30 |
| MI02 |) Mi | United States | 2010 | Bling | Jérsey <i>©</i> high Dush | Fruit | [0.1830] | 3 | 0.0950 0.0604 | <0.050 <0.050 | <0.010 | 0.1550 0.1204 | 0.14 |
| Á | | | | | . 00311 | | 411.3 [0.3669] | 3 | 0.4691 0.3693 | <0.050 <0.050 | <0.010 <0.010 | 0.5291 0.4293 | 0.48 |
| | , <u>, , , , , , , , , , , , , , , , , , </u> | | | | l | 1 | l | 1 | l | | | | |

Total BYI 02960 Residue Data from Blueberries after Foliar Applications of Table 6.3.2.5-6 (cont'd): BYI 02960 200 SL

| | | | | 02960 2 | | | | | | | | 0 | |
|--|----------------|------------------|------------------|-----------------|------------------------------|------------|--|-------------------------|--------------------------------|----------------------------|--|---------------------------------------|----------|
| | | | ır | | | | | | R | esidues fr (mg/ | om Treatç kg a.s. eð | d Sample | 3 |
| Trial ID | Trial Location | Country | Trial Start Year | Crop | Variety | Commodity | Total Rate (g a.s./ha) [lb a.s./A] | PHI (days) ^a | BYI 02960 | DFA | LOFEAF PO | Fay. | Mean |
| MI03 | , MI | United States | 2011 | Blue- berry | Jersey high bush | Fruit | 206.7 [0.1844] 414.0 | 30, | 0.1684 0.1607 0.2235 | <0.050 <0.050 <0.058 | \$0.010 \$\infty\$0.01\$\$ \$<0.01\$\$ | 0.2284 0.2267 0.2267 0.28835 | 0.29 |
| NC01 | | United | 2011 | Blue- | Croutsh | Par | [0.3693] | | 0.2358 0.3836 | © 050 © 050 © 0.050 | <0.010 <0.010 <0.010 | 0.4436 | 0.29 |
| NCUI | NC | States | 2011 | berry | high | Fooit | 40,06 | | 0.3581 | <0.050 <0.050 | <0.010 <0.010 <0.010 | g:¥181 | 0.43 |
| NC02 | | United | 2011 | Blae- | Dyplin ? | Fruit | [0.3600] | 0 | | <0.050 <0.050 <0.050 | <0.010 <0.010 <0.010 | 0.8721 | 0.64 |
| 11002 | NC | States | 2011 | Sorry Sorry | high busto | Fruit S | [0.1796] | 2, 3 | 0.57200 | © .050 | ≈ 0.010 < 0.010 | 0.5812 0.7800 | 0.83 |
| OR01 | | United | ~2 9 11 | Blue- & | S Blue | \$ Q | [0.359 x] 205\0 | | 0.82 % 0.82 % | <0.050 | <0.010 | 0.8871 | 0.35 |
| | OR | States | | berry | Blue crap high | Fruit | 420 1 | 30 | 0.3079© | × | <0.010 | 0.3679 | 0.63 |
| 0016 | | Eanada | 0 | | bush & | Æruit " | [0.347] | Sy. | 026/214 | < 0.050 | < 0.010 | 0.6814 | |
| QC16 | | e anada, | 2011 | Blukey benry | Bluecro Phigh D bush | | [0.1889] | 7 3 × | 0.4319 | <0.050 | <0.010 | 0.5286 | 0.51 |
| | | | | | | ő | 2086 2086 | % 3 ₹ | 0.3669 | <0.050 | <0.010 | 0.4269 | 0.51 |
| AU01 | 2 | Austra- | 2011 | Blue- Oberry | Reka higho bush | Fruit | [6][861] | 3 | <0.010 1.4322 | <0.050 | <0.010 | 0.0700 1.4922 | 0.78 |
| A 7 7 0 2 | VIC | | | | | or Cont | (0.3709) | 3 | 2.5354 | 0.0595 | <0.0112 | 2.6061 2.1820 | 2.39 |
| AU02 | , | Austra- | 2011 | Blue | Deasy Augh bush | **Count | 207.1 [0.1847] | 3 | 0.4526 | <0.050 | <0.010 | 0.5126 | 0.48 |
| ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ | VIC | O | | | | | 405.0 [0.3613 | 3 | 1.0223 0.8722 | <0.050 | <0.010 | 1.0823 0.9322 | 1.01 |
| NZ01 | | Neway Zea- | 20 9 | Blue- berry | Maru Waru high bush | Fruit | 202.3 [0.1805] | 3 | 0.1244 0.1045 | <0.050 | <0.010 | 0.1844 | 0.17 |
| Ž | | Q" | | ⊌ | | | 406.2 [0.3624] | 3 | 0.1346 | <0.050 | <0.010 | 0.1946 0.1914 | 0.19 |
| Ę, | | "O" | | | | | | | Con | tinued o | on next po | age | |

Table 6.3.2.5-6 (cont'd): Total BYI 02960 Residue Data from Blueberries after Foliar Applications of BYI 02960 200 SL

| | | | = | | | | | | R | esidues fr | om Treatç kg a.s. eð | d Sample | P |
|----------|----------------|---------------------|------------------|----------------|---|----------------|-------------------------------|---|------------------------------|--|----------------------------|-----------------------------------|----------|
| Trial ID | Trial Location | Country | Trial Start Year | Crop | Variety | Commodity | Total Rate (g a.s./ha) | PHI (days) ^a | BY102960 | LDFA | BFEAF [®] | | Mean |
| NZ02 | | New Zea- land | 2011 | Blue- berry | Darrow high bush | Fruit * | 241.2 [0.1911] 428.0 | 3,0 | 0.5798 0.5975 0.8928 | | ©010 ©0.010 <0.010 | 0.65 25 0. 0 528 | 0.65 |
| CL01 | 0 | Chile | 2011 | Blue- berry | Ellion | Fring Fring | [0.38f8] 207.9 [0.1854] | | 0.9064* 0.8900 01.1243 | <0.050 0.050 <0.050 | <0.010 <0.010 <0.010 | \$.9664 0.9500 1.1.843 | 1.07 |
| | | | | Q. | high Aush | | 4163 [0.3714] | | 2.358 33915 | \$0,050 \$0.050 | <0.010 <0.016 | 2.4158 1.6515 | 2.03 |
| | | | | | | | | | 0 1.5403 2.0\$\$4 | <0.0 <0.0 50 | <0 <u>/910</u> \$0.010 | 1.6007 2.1354 | 1.87 |
| | | | Ş | | | | | \$\frac{1}{3} | ©1080 2 1.2292 | ©0.05 Q <0.0 \$ 0 | <0.010 <0.010 | 1.1680 1.2802 | 1.22 |
| | | | | | | | | Ž, | 1,6078 1,4536 | Ø.9506 Ø.0634 | <0.010 <0.010 | 1.6684 1.5270 | 1.60 |
| | | | | | | | | 14 | 1.09 1,4080 | 0.1446 0.0979 | <0.010 <0.010 | 1.2462 1.2159 | 1.23 |
| CL02 | | Chile | 2011 Å | Blue- beny | Efficit (Migh | Fruit | © 204.7 [0.1826] |) 3 | 0.6565 | <0.050 <0.050 | <0.010 | 0.7541 0.7165 | 0.74 |
| | | Ö, | | | bush | J. | 413.3 40,3687 | * ************************************ | 1.1413 1.3481 | <0.050 <0.050 | <0.010 | 1.2013 1.4081 | 1.30 |
| CL03 | | Chile | 2013 4 | Pdue- | Elliot high | Fruit | 204.47 [0.1824] | 3 | 0.8384 0.7456 | <0.050 <0.050 | <0.010 <0.010 | 0.8984 0.8056 | 0.85 |
| | % | | | | bushi | | \$406.4 [0.3626] | 3 | 1.3376 2.1085 | <0.050 <0.050 | <0.010 <0.010 | 1.3976 2.1685 | 1.78 |
| UK01 | | United King- | 2011 : | Blue-Aberry | Duke logh Joush (protect -tive tumnel) | Frant ** | 204.5 [0.1824] | 3 | 0.4739 0.4956 | <0.050 <0.050 | <0.010 <0.010 | 0.5339 0.5556 | 0.54 |
| 4 | | King- Q | | | bush (protect) | , | 409.7 [0.3654] | 0 | 0.9888 1.0812 | <0.050 <0.050 | <0.010 <0.010 | 1.0488 1.1412 | 1.10 |
| | | | | | tumel) | | | 1 | 0.8422 0.6912 | <0.050 <0.050 | <0.010 <0.010 | 0.9022 0.7512 | 0.83 |
| | | | |) } |) | | | 3 | 0.5760 0.5451 | <0.050 <0.050 | <0.010 | 0.6360 0.6051 | 0.62 |
| | | | | | | | | 8 | 0.4757 | <0.050 <0.050 | <0.010 | 0.5357 0.5465 | 0.54 |
| | Ö [*] | | | | | | | 15 | 0.3522 | <0.050 <0.050 | <0.010 | 0.4122 0.4601 | 0.44 |

Table 6.3.2.5-6 (cont'd): Total BYI 02960 Residue Data from Blueberries after Foliar Applications of BYI 02960 200 SL

| | _ | | ar | | | | | | R | esidues fr (mg/ | om Treatç kg a.s. ee | Sample av.) | 3 |
|----------|----------------|-----------------------|------------------|----------------|------------------------------|-----------|-------------------------------|--|-----------------------------------|---------------------|---------------------------|------------------|-------------------|
| Trial ID | Trial Location | Country | Trial Start Year | Crop | Variety | Commodity | Total Rate (g a.s./ha) | PHI (days) ^a | F. L. BY1 02960 | LDFA | DFEAF CO | Potale P | Mean |
| UK02 | | United Kingdo m | 2011 | Blue- berry | Blue- crop | Fruit * | 203.8 [0.1818] | 300 | 0.4442 | <0.030 \$0.050 a | 0.010 | 0.45 46 | [©] 0.48 |
| | | m | | | bush | | 409.0 409.0 (0.3648) | \$ 0 | 0.6577 0.5795 14326 | <0\050 | <0.040 \$6.010 | 0,J47 \$.6395 | 0.68 |
| | | | | | | | | ************************************** | | 0.050 <0.050 | <0.010 <0.010 | 1.4926 1.4500 | 1.47 |
| | | | | | | | [0.1818] 409.0 [0.3648] | | 0.6 49 1 0.7 013 | \$0,050 \$0.050 | ₹0.010 √<0.01€ | 0.7001 0.7613 | 0.73 |
| | | | | | | | | 8.8 | 0.4213 | <0.050 <0.050 | <0 <u>/910</u> \$0.010 | 0.4817 0.5373 | 0.51 |
| | | | Z, | | | | | × . ¢ | 0.0 | <0.050 | <0.010 <0.010 | 0.3825 0.3632 | 0.37 |
| IT01 | | Italy & | 26011 | Blue- | Duke high | Fruit | 210.6 [0\$879] | P. | 0.7977 %.7660 | ©.050 0.050 | <0.010 <0.010 | 0.8577 0.8260 | 0.84 |
| | | | | | | | Ĵ¥415.6©″ [0.3∰97] | | 39453 | <0.050 <0.050 | <0.010 | 3.6405 4.0053 | 3.82 |
| | Ô | | | | | | | 1 | 3.5037 | <0.050 | <0.010 | 3.5071 3.5637 | 3.54 |
| | | ; () () | | | Jew@ | | | ************************************** | 1.5630 1.6851 | <0.050 | <0.010 | 1.6230 1.7451 | 1.68 |
| | v v | | | | | | | | 1.6811 | <0.050 | <0.010 | 1.7411 | 1.65 |
| | ~ () | | | | Jewer | | | 14 | 1.8590 1.5702 | 0.0751 | <0.010 | 1.9441 1.6546 | 1.80 |
| SP01 | | Spain | 2011 | Blue-Aberry | Jewed hogh Dush | Frant | 206.3 [0.1840] | 3 | 0.3082 | <0.050 <0.050 | <0.010 | 0.3682 | 0.37 |
| 4 | | a, ^N | | | bush (protect) -tive tunnel) | ř | 407.7 [0.3637] | 0 | 0.4778 | <0.050 <0.050 | <0.010 | 0.5378 | 0.60 |
| | | | | | tatranel) | | | 1 | 0.2366 | <0.050 | <0.010 | 0.2966 0.3196 | 0.31 |
| | | | |) · | | | | 3 | 0.1403 0.1277 | <0.050 <0.050 | <0.010 | 0.2003 | 0.19 |
| | | Ö. | | | | | | 7 | 0.1514 0.2442 | 0.0944 <0.050 | <0.010 <0.010 | 0.2558 | 0.28 |
| | Ű | | | | | | | 14 | 0.1535 0.1667 | 0.0747 0.0945 | <0.010 <0.010 | 0.2382 0.2712 | 0.25 |

Table 6.3.2.5-6 (cont'd): Total BYI 02960 Residue Data from Blueberries after Foliar Applications of BYI 02960 200 SL

| | g | | Year | | | | | | R | esidues fr (mg/ | om Treate kg a.s. egy | o Sample | |
|----------|----------------|----------------|---------------|----------------|-------------------------|-----------|---|-------------------------|--------------------------------------|--------------------|--------------------------------------|-----------------------------------|------|
| Trial ID | Trial Location | Country | Trial Start Y | Crop | Variety | Commodity | Total Rate (g a.s./ha) | PHI (days) ^a | BY1 02960 | DFA | a.) | $h_{ m total}^{\sim L_{ m L}}$ | Mean |
| DK01 | | Den- mark | 2011 | Blue- berry | Herbert high bush | Fruit * | 329.1 (0.2935) | 3 (2) | 0.9986 | () | 0.010 <0.0¥0 | X-J | 1.04 |
| AU04 | NSW | Austra- lia | 2011 | Blue- berry | Rahk rabt©t eye | Fruito | 200.4 [6,4797] © 404.6 [0.3699 | | 0.0890 9.0875 0.2549 0.2789 | <0.030 | <0.010 <0.010 <0.010 <0.010 | 0.1490 0.1475 2 3149 | 0.15 |

- a Samples were collected after the first and second applications at target rate of 205 g wha
- b Total BYI 02960 = Sum of BYI 02960 + DFA + DFEAP sesidues

Conclusion

Twenty-six residue field trials were conducted on low bush, bigh bush, and rabbit eye blueberries in North America, South America, Australia, New Zearand, and Europe. High bush blueberries were grown under a protective tunnel in two trials; all other blueberries were grown under standard field conditions. A total of approximately 0.410 g a.s./ha.0.366 b a.s./h was applied to the treated plots in two foliar applications of BYI 02960 2008 L at a rate of approximately 205 g a.s./ha (0.183 lb a.s./A) each.

The total BYI 02960 residue data for blueberries following foliar applications are summarized in Table 6.3.2.15-7.

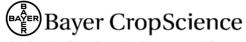
Maximum total BYI 02960 residues BYI 02960 DFA DFEAF) were 1.49 ppm (1.50 ppm when considering the mean of the two samplings) in day-3 samples collected after the first application and 2.61 ppm (2.39 ppm when considering the mean of the two samplings) in day-3 samples collected after the second application. Total residues of BYO 02960 declined over time as shown in seven decline trials. However the residue peak was not always at the intended PHI of 3 days. Peak residues detected after the PHI were always lower as the overall maximum total BYI 02960 residue in blueberries.

The residue data from these globally conducted trials can be used to establish a US tolerance and provide for international MREs for BYI 02960 on blueberry.



Table 6.3.2.5-7: Summary of Residue Data for Total BYI 02960 from Blueberries

| | | | | | | Total BY | T 02960 | Residue 1 | Levels (pp | | ~ |
|--|--|--|--|--------|--|---------------|-----------------------------|-----------|------------|------------------|---------------------|
| Commodity | Plot Name ¹ | Total Appl. Rate Ib a.s./A (kg a.s./ha) | PHI (days) ³ | п | Min at PHI | Max at PHI | Max after PHI | AAAA 2 | Medi | Mean 3/2 | Standard (1) |
| Blueberry fruit | TRTD | 0.123 to 0.191 (0.138 to 0.241) | 3 | 26 | 0.070 | 1.492 | NA | 1.1379 | 0.522 s | \$ 557 \$ 557 | © 0.32 |
| Blueberry fruit | TRTDF | 0.294 to 0.381 (0.329 to 0.428) | 3 | 26 | 0 d 88 | 2.606 | 01/944 (14) ⁵ | 2.5946 | 0.851 | 9 74 | & 9 .63 V |
| TRTDF = H HAFT = H calculated NA = not a Sampling of | treated plot ighest Ave on the basis applicable; day showing | 0.123 to 0.191 (0.138 to 0.241) 0.294 to 0.381 (0.329 to 0.428) receiving one dilute treceiving two diluterage Field Trials of residue values and decline trials were ghighest residue | e spray apply at the PHI re constructe | dicati | ons of the second of the secon | cation C | | | 0.831 | | o |



IIA 6.3.2.6 Miscellaneous fruit - prickly pear cactus (fruit)

Residue data from NORTH AMERICA

BYI 02960 is to be registered in USA and Canada for use as a foliar treatment on prickly pear actus. The use pattern in North America is summarized in Table 6.3.2.6-1.

An IR-4 program (Inter-Regional Research Project Number 4) was initiated to establish an MRL (maximum residue level) for pickly pear cactus. A total of 8 trials were conducted to support this minor use initiative.

| | | | Target | t Rate/Appli | - "/ | | | , W | | Spray | olume |
|---------------------|----------------|------|---------------------|--------------|--------------|---------|----------------------------|--------|-----------------------------|--------------------|--------|
| | | - | nulated ict (FP) | Active S | ıbstanç | e(a.s.) | Targer | | | | |
| Test Substance | No. of Apps | | fl oz/A | Name of | /b/ a.s/A | a.G./ha | App. Interval (Days) | (PHI», | Adjuvan Additiv e (%) | O A | БРНА |
| BYI 02960 200 SL | 2 | 1025 | 14.0 | BXI 0296@ | 0.183 | 205 | | | 59.25 É | \$10 -50 \$ | 93–467 |

GPA = gallons per acre LPHA = liter per hectare

| Report: | KIĮA 6.3.2-6/01; 20012 W.; 2012 W |
|---------------|---|
| Title: | By 02960 Magnitude of the Residue on Prickl Pear Sactus |
| | |
| Report No & | IR-4 PR No. 10722; dated June 14, 2072 Batter CropScience Report No. RARVP078 M-432542-01-1 |
| Document No | Barr CropScience Report No. RARVP078 |
| | |
| Guidelines: 👰 | US: EPA Residue Chemistry Test Guideline, OPPTS 860.1500, Crop Field Trials |
| | Canada: PNRA DACO 7.4.1, Supervised Residue Prial Study |
| | RMRA DACO 24.2, Residue Decline |
| | QECD. Guidetines for the Testing of Chemicals, 509, Crop Field Trial, |
| Š | Adopted Sept. 7, 2009. |
| GLP | YES S S S |

A total of eight trials were conducted in pickle pear actus according to the intended GAP during the 2011 growing season. The use pattern - corresponding to the intended GAP - is described below. Four trials generated fruit sample and four trials generated pad samples. The number of trials and their locations are adequate for a regional registration in the US. The number and location of field trials are shown in Table 6.3 2.6-2.



Table 6.3.2.6-2: Trial Numbers and Geographical Locations for BYI 02960 on Prickly Pear Cactus

| | Prickly Pear C | actus (Fruit and Pa | ads) | |
|-------------------|------------------------------|---------------------|----------|-------|
| | | Requeste | ed | |
| NAFTA Growing Reg | gion Submitted | Canada | U.S. | |
| 1 | | | | |
| 1A | | | , | |
| 2 | | | <u> </u> | |
| 3 | | S | | |
| 4 | | | | |
| 5 | | | 4 | |
| 5A | | | ¥ Ø | |
| 5B | | | | |
| 6 | | | | |
| 7 | <u>گ</u> | | | |
| 7A | | | A | |
| 8 | | | | |
| 9 | | | | |
| 10 | Q 8 2 2 | | | |
| 11 | | | | |
| 12 | | | , Š | © ° ° |
| 13 | | Øv" ¹∪ | | Y Q |
| 14 | | | | |
| Total | y 3 28 | | S | |

a OPPTS 860.1500 does not specify growing regions for prickly bear cactus. However, prickly pear cactus are primarily grown in California (region 10) and Texas (regions 6 and 8).

Material and Methods

One use pattern/application form was tested. In each trial, the lost substance was applied in two foliar directed applications of approximately 0.183 lloa.s./A each for a total of approximately 0.366 lb a.s./A. A non-ionic surfactant was included in each rank rffx. The applications were made at 7- to 8-day intervals and timed so that mature fruit and pads could be collected approximately 21 days after the final application.

In each trial, duplicate samples of fruit (CX*01 CA*02, CA*143, and CA*144) or duplicate samples of pads (CA*160, CA*167, CA*162, and CA*063) were collected from each plot 20 to 21 days following the final application.

Trial Site conditions, including soil characteristics are summarized in Table 6.3.2.6-3. Study use patterns are summarized in Table 6.3.2.6-4.



Table 6.3.2.6-3. Trial Site Conditions for BYI 02960 on Prickly Pear Cactus

| | Trial | | Soil Charac | teristics | |
|---------------------------|---------------|-------------|---|-----------|-------------------|
| Trial ID (City, State) | Start Year | Туре | %OM | рН | CEC (meq/190 g) |
| | | Fr | uit | | |
| CA*01 (, CA) | 2011 | Sandy loam | 2.1 | 7.3 | |
| CA*02 (CA) | 2011 | Sandy loam | 2.1 | 7.3 | 13 2 6 |
| CA*143 (, CA) | 2011 | Sandy loam | | 7:Q | 24 |
| CA*144 (, CA) | 2011 | Sandy lo@m | \$\frac{1}{2}\frac{1}{2 | 7.5% | 24 5 24 5 5 |
| | | Pa | ds S | | |
| CA*160 (CA*160) | 2011 | Sandy to am | ds 2.1 2.1 | 7 7.36 S | \$\tag{\text{3}} |
| CA*161 (CA) | 2011 | Sandy loaga | | 7.3 | 13 |
| CA*162 (CA*162, CA) | 2011 2011 | Sandy loam? | 2.1 | 7 7.5 Q | 24 |
| CA*163 (CA*163, CA) | 200 | Sandy loam | 2.1 0 | 7.59 | 24 |

Table 6.3.2.6-4 Stordy Use Pattern for 102960 200 SL on Prickly Pear Cactus

| , Ö |) (O | | | Ap | plication | | | |
|------------------------------|------------------------|----------------|--|--------|------------------------|-------------------------|---------------------------------|-------------------------------|
| Trial ID (City, State) | Trial Start Start Year | | Nethost Timing | GPA | Rate (lb a.s./A) | RTI ^b (days) | Total Rate (lb a.s./A) | Tank Mix Adju- vants |
| CA*01 (CA) | 2 011 S | BYC 02960 | Foliar directed All stages of fruits and fru | 100.07 | 0.1854 | | | R-11 Spreader |
| ** | | | Folia directed All stages of froits and flowers/21 days prior to harvest | 99.46 | 0.1843 | 7 | 0.3696 | R-11 Spreader |
| CA*02 | 20 N | 02960 20080 | Fokar directed/All stages of fruits and flowers/28 days prior to harvest | 72.43 | 0.1862 | | | R-11 Spreader |
| | , "O _r | | Foliar directed/All stages of fruits and flowers/20 days prior to harvest | 72.90 | 0.1875 | 8 | 0.3737 | R-11 Spreader |

Study Use Pattern for BYI 02960 200 SL on Prickly Pear Cactus Table 6.3.2.6-4 (cont'd):

| | | | | Ap | plication | | | 0,0 |
|------------------------------|------------------------|--------------------------|--|-------------------|------------------------|----------------------------|-------------------------|--------------------------------------|
| Trial ID (City, State) | Trial Start Year | EP a | Method/ Timing | GPA | Rate (lb a.s./A) | ATI b (days) | Total Rate (lb. a.s./A) | Tank Mix Adju- Vants |
| (CA*143 (CA) | 2011 | BYI 02960 200SL | Foliar directed/All stages of fruits and flowers/27 days prior to harvest Foliar directed/All stages of fruits and flowers/20 days prior to harvest | 45.83 | 0.1832 | | 0.3662 | R-4 Spreader R-4/1 Søreader |
| CA*144 (CA) | 2011 | BYI 02960 200SL | Foliar directed All stages of fruits and flowers 28 days prior to harvest Foliar directed All stages of fruits and flowers 21 days prior to harvest | 219.91Q | 0.1796 | | 0.3591 | R-11 Spreader |
| CA*160 (CA) | 2011 | BXI 02960 200SL | Foliar directed/Various sizes of pads 28 days parior to Darves Toliar directed/Various sizes of pads/21 days prior to harvest | 97.78 | 09853 | 7 - 9 - 9 - 7 - 7 | 0.3688 | R-11 Spreader R-11 Spreader |
| CA*161 (CA) | 2 011 | BYD 02960 200SL | Foliar directed/Various sizes of pads/28 days proof to harvest Foliar directed/All Gizes | 72.54 7 73.81 | 0.1866 | 8 | 0.3699 | R-11 Spreader |
| CA*162 (CA) | 2011 | ØBYI Ø 02960 2008L | For directed/Various Sizes of pads/27 days prior to harvest | \$\frac{3}{47.13} | 0.1871 | _ | | R-11 Spreader |
| | Ş | | Folia directed All sizes of pads/20 days poor to | 46.85 | 0.1872 | 7 | 0.3743 | R-11 Spreader |
| CA*163 (CA) | 20 kl | BYI 02960 20051 | Foliar directed/All Stages and sizes of pads/28 days prior to harvest | 21.34 | 0.1843 | _ | | R-11 Spreader |
| CA) | | | Foliar directed/All stages of pads/ 21 days prior to harvest | 21.13 | 0.1920 | 7 | 0.3763 | R-11 Spreader |

a EP = End-use Product
b RTI Retreatment Interval

Bayer CropScience Tier 2, IIA, Sec. 4, Point 6: Flupyradifurone (BYI 02960)

The residue(s) of BYI 02960, DFA, and DFEAF were quantitated by HPLC-MS/MS using stable isotopically labelled internal standards. The individual analyte residues were summed to give a total BYI 02960 residue. Residue measurements below the analyte LOQ were summed into the total BYI 02960 residue value as the analyte LOQ value.

Findings

Concurrent recoveries of BYI 02960, DFA, and DFEAF were measured with each set of samples to verify method performance. All recoveries were corrected for any interferences in corresponding controls. The overall mean of the recoveries for each matrix was within the acceptable range of 70 to 110%, and the standard deviation values were $\leq 25\%$ (Table 6.3-2.6-5)

Table 6.3.2.6-5: Summary of Recoveries of BYJ \$2960 from Prickly Foar Cacrus

| Crop Matrix | Analyte | | Dev |
|----------------|-----------|--|-----|
| | BYI 02960 | 0.01, 7 7 89,94, 108,96, 103, 98, 58 97, 97 | 8 |
| | D11 02900 | 0.2 97 | 5 |
| Blueberry | DFA 🗽 | 0.05 7 83, 86, 108, 89, 88, 101, 79 91 | 10 |
| fruit | | 94, 95, 93 | 1 |
| | DEE AGY | '\sigma' 0.01, \sigma' \circ \circ \circ \circ \sigma' \sim \sim \sigma' \sigma' \sigma' \sigma' \sigma' \sigma' | 7 |
| | DFE A | 97, 103, 96 99 | 4 |

The freezer storage stability study indicates that BYI 02960 residues were stable in a representative crop of the respective crop commodity (high water content) during frozen storage for at least 18 months (558 days) prior to analysis. The maximum storage period of frozen samples in this study for BYI 02960 was 101 days. A summary of the storage conditions are shown in Table 6.3.2.6-6.

Table 6.3.2.6-8: Summery of Storago Conditions for Prickly Pear Cactus

| Matrix | Anafyte | Storage Pemp (C) | Actual Maximum Storage Duration (days) | Interval of Demonstrated Storage Stability (Months) ^a |
|--------|------------------|---------------------|--|---|
| Fruit | BYI 02960 + | Q -20 | 99 | 18 (558 days) |
| | ~ rnetal of ites | , W | | |
| Pads | BY(02960) | -20 | 101 | 18 (558 days) |
| | metabontes | | | |

a and A. and and A. 2012. Storage stability of BYI 02960, difluoroacetic acid, and difluoroachyl-amino-furanone in plant matrices. Bayer CropScience Report No. RARVP046, amended version including 18-month data (KIIA 6.1.1/01).

The total BYI 02960 residue data for prickly pear cactus following two foliar applications of BYI 02960 200 SL are shown in Table 6.3.2.6-7.

Table 6.3.2.6-7: Total BYI 02960 Residue Data from Prickly Pear Cactus after Foliar Application(s) of BYI 02960 SL

| | | | | | | | | | | ,* | | - \$' | |
|------------|---------------------------------|-------------------------|------------------|---------------------------|----------------------|-------------|----------------------------|--------------|-----------------|---------------------|----------------------------|------------------|------|
| | | ing | ≒ | | | | | | | sidues fro mg_a) | m Treate | ∦Sample kg)√ | es |
| Trial ID | Trial Location (City, State) | NAFTA Growing Region | Trial Start Year | Crop | Variety | Contamodity | Total Rate (b) a.s./A) | | BYI 02960 | BFA CACA | DEKAF 4 | Total | Mean |
| CA* 01 | CA | 10 | 2011 | Prickly Pear Cactus | And & Bo O "Ked" | Fruit | ° 0.3696 | 24) 0 | 0.1577 | <0.050 <0.050 | <0.010 <0.010 <0.010 | 0.2117 0.1434 | 0.18 |
| CA* 02 | , CA | 10 | 2011 | Prickly Pear Cactus | Andy Boy "Red" | Fruit | 0.370 | 20 () | 0.1293 ©1255 | <0.050 Q0.056 | <0.010 | 0.1813 | 0.18 |
| CA* 143 | , CA | 10 | 2011 | Priokly Pear Cactus | Andy Boy "Red" | 10 | | | 0.0954 | <0.050 0.050 | <0.010 | 0.1669 | 0.16 |
| CA* 144 | , CA | 10 | 2011 | Prickly Pear Cactus | Andy Boy "Red | Fruit | ©0.3591 | 21 % | 0.0469 | <0.050 ©0.050 | <0.010 | 0.1069 | 0.13 |
| CA* 160 | CA | 10 | 20116 | Prickly Pear Cactus | Andy Boy "Red" | Pads | \$\frac{1}{2}\text{.3688€} | 4 | 0.2132 | <0.050 | <0.0119 | 0.2751 | 0.27 |
| CA* 161 | ÇAQ | O 10 | 2011 | Cactus 4 | Andy Boy "Red | | 0.3699 | \$\forall 20 | 0.2546 | <0.050 | 0.0133 <0.010 | 0.3179 | 0.27 |
| CA* 162 | , CA | 10 | Ž011 Ž | Prick Pear Sectus | Andy Boy Red | Bads X | | 20 | 0.2183 | <0.050 | 0.0186 | 0.2869 | 0.29 |
| CA* 163 | CA CA | | 2011 × | Prickly Pear Caytus | Andy Boy Red" | Pads | 05763 | 21 | 0.2380 | <0.050 | 0.0232 | 0.3112 | 0.33 |

a Total By 102960 = Sum BY 102960 + Dy A + DY EAF Residues

& Conclusion

Eight residue field tribs in fickly pear cactus (four for fruit and four for pads) were conducted in California. A total of approximately 0.400 kg a.s./ha (0.366 lb a.s./A) was applied to the treated plots in two forar directed applications of BYI 02960 200SL at a rate of approximately 0.200 (0.183 lb a.s./A) each.

The total YI 02960 residue data for pickly pear cactus following two foliar applications are summarized in Table 6.3.2.6-8.

Maximum total BYI 02960 residues were 0.212 ppm (0.18 ppm when considering the mean of the two samplings) in fruit and 0.346 ppm (0.33 ppm when considering the mean of the two samplings) in pads at a PHI of 20 to 21 days when applying BYI 02960 200 SL according to the proposed use pattern.

Data from this study can be used to support a US tolerance proposal and to provide for international MRLs for BYI 02960 on prickly pear cactus.

Table 6.3.2.6-8: Summary of Residue Data for Total BYI 02960 from Prickly Pear Cassus

Summary of Residue Data for Total BYI 02960 from Prickly Bear Cassus Table 6.3.2.6-8:

| | | | | | Q` | , 0 | Ž, | | <u> </u> | |
|------------------------------|-----------------|---|-------------------------|--|---------------|-----------------------|--------------------|------------------------|----------|-----------------------|
| | | | | | Total | BY 029 | 66Resid zeguivA | ©e [¥] Levels | s Ö | , |
| 5 5 | 1 | - | _ # | , | | Ving a.s | gequivas 1 | g) 👋 | | |
| Commodií | Plot Name | O.359 to 0.374 (0.402 to 0.413) O.369 to 0.376 (0.413) receiving two diluterage Field walls with the control of the control | PHK (days) | Min at PHK | Max at PHI | Mark Lafter Pro | HAFT | Median 3 | | Standard Deviation |
| Cactus Fruit | TRTDF | 0.359 to 0.374 (0.402 to 0.415) | 20-23 | 4 0.1069 | 0.2197 | X ⁴ | 6 1834 | 0.1612 0.1612 | 0.1625 | 0.0317 |
| Cactus pads | TRTDF | 0.369 to \$376 \((0.413 \text{ to 0.421}) | ¥20-21 \$\frac{1}{2} | 4 0.214 | 0.346 | | 0.3286 | ©.2935 | 0.2883 | 0.0408 |
| TRTDF = tr | eated plot | rece r ing two dilute | e shav anna | Seations & | | | | | | |
| 2 HAFT = Hi | ghest Ave | rage Field Trial | | | Š (4, | * | . 5 | | | |
| 3 calculated o | n the basis | of residue values a | t the PHI | | ' © " | | | | | |
| $1 	ext{NA} = \text{not ap}$ | plicable | no decline trial over | e conducted | | e a | `. <i>O</i> 1 | , | | | |
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IIA 6.3.2.7 Root and tuber vegetables - potatoes and sweet potatoes

Residue data from **NORTH AMERICA** (Crop Subgroup 1C)

BYI 02960 is to be registered in USA and Canada for use as a foliar treatment in on tuberous and corm vegetables (Crop Subgroup 1C). The use pattern in North America is summarized in Table 6.3.2.7-1.

A total of twenty-six trials were conducted in potatoes. The studies are described below

Table 6.3.2.7-1 Target Use Patterns for the Application of BYQ02960 on Tuberous and Corn Vegetables (Crop Subgroup 16) in North America

| | | | Target | t Rate/Appli | cation | Ŵ. | | | | Spray | Volume |
|---------------------|----------------|-----|---------------------|--------------|----------------------------------|----------------|----------|----------------|------------|--------|--------|
| | | | nulated ict (FP) | Active Su | • 🔪 | e (a,s.) | Target | 1 | Adjuva/nt/ | | |
| Test Substance | No. of Apps | | fl oz/A | Name of | ૄ ી δ ⟨a.s./Α <i>,</i> | Kg Ça.s./ha | Interval | PHAL (Days) | Additive | (*) (C | LPHA |
| BYI 02960 200 SL | 2 | 415 | 14.0 | BYI 02960 | 0.133 | 0.005 | | 7 5 | | ÎØ-50 | 93-467 |

GPA = gallons per acre LPHA = liter per hectare

| Report: | KIIA 6,3.2.7/01; and AQM. 2012 |
|-------------|--|
| Title: | BYI 02960 200 SL - Magnitude of the Residue in Potato - Tuberous and Corm Vegetables |
| | (Clop Subgroup K) W S S |
| Report No & | RARVY015, dated May 4, 2012 |
| Document No | M-4.0032-04-2 |
| Guidelines. | US EPA Residue Chemistry Test Guidelines OPOTS 860.1500, Crop Field Trials |
| ** | Čanada: PWRA DACO 34.1, Supervised Residue Trial Study |
| | PMR DACO 7.4.2 Residu Decline |
| | OECD: Guidelines for the Testing of Chemicals, 509, Crop Field Trial, Adopted Sept. 7,0009, O |
| w . | Adopted Sept. 7,0009, O O |
| GLP | Yes O O O |

Twenty six field trials were conducted to measure the magnitude of BYI 02960 residues in/on potato tubers following two broadcast foliar spring applications of BYI 02960 200 SL. BYI 02960 200 SL is a soluble concentrate formulation containing 200 g BYI 02960/L. The number and location of field trials conform to the guidance given by the EPA (Table 6.3.2.7-2).



Table 6.3.2.7-2: Trial Numbers and Geographical Locations for BYI 02960 in/on Potato

| NAETA Crowing Dog | ion Submitted | Req | uested ^a |
|-------------------|-----------------|--------|---------------------|
| NAFTA Growing Reg | gion Submitted | EPA | PMRA S |
| 1 | 7 | 2 | 1 |
| 2 | 1 | 1 | |
| 3 | 1 | 1 | |
| 4 | | | |
| 5 | 5 | 4 6 | |
| 6 | | | |
| 7 | Q | | |
| 7A | 1 0 4 | | |
| 8 | | | |
| 9 | | | |
| 10 | | | |
| 11 | | | |
| 12 | *** *** 1. a. " | | |
| 13 | | | |
| 14 | | | 2 |
| Total § | 26 | P6 0 . | 16 |

a Decline trials were conducted in Regions 1, 5, 11, and 14. The additional decline trials were performed to meet EU requirements.

Material and Methods

Individual application rates ranged from 0.178 to 0.190 lb BYI 02960/A/application (0.200 to 0.221 kg BYI 02960/ha/application). Seasonal application rates ranged from 0.359 to 0.385 lb BYI 02960/A (0.402 to 0.432 kg BYI 02960/ha). All applications were made at growth stages ranging from BBCH 42 to 95 (BBCH 42: 20% of total final tiber mass reached; BBCH 95: 50% of the leaves brownish). The interval between the applications was 630 8 days.

All applications were made using ground based equipment. All applications included a non-ionic surfactant (NIS) adjuyant at a fate of 0.25% (V/v).

Trial Site conditions, including soil characteristics are summarized in Table 6.3.2.7-3. Study use patterns are summarized in Table 6.3.2.7-4.



Table 6.3.2.7-3: Trial Site Conditions for BYI 02960 on Potatoes

| | | Soil (| Charac | teristics | a | Meteorological Data ^b | | |
|-------------------------|---|--------------|----------------------|--------------|---------------------------|----------------------------------|----------------|--|
| Trial Identification | Trial Location (City, Country/State, Year) | Туре | OM (%) | pН | CEC (meq/100g soil) | Total Rainfall (in) | Temp Kange | |
| RV178-10DA | , NY, 2010 | Loam | 4 | 6.5 | 9.7 | 8.82 | 54 5 78 | |
| RV179-10HA | NY, 2010 | Sand | 3.4 🔊 | Ĉ∂ ₹ 6.7 | 86 | 9.00 | 52-82 | |
| RV180-10HA | , PA, 2010 | Loam | 2.4 0 | 6.2 | 9.20 | 9.25 | Q1-95 Q | |
| RV181-10HA | , NJ, 2010 | Loam & | 2 <i>3</i> 3° . W | 7.5 | \$ 3.9 L | 502 | 70491 | |
| RV182-10HA | 2010 NY, | Silt Loam | 2.8 | 6.6 | 5,6 | 11.06 | 41-72 | |
| RV183-10HA | 2010 NY, | Silt Loans | #2.8 \$2.8 | 6 .6 | 5.60 | ¥1.06 | 49-72 | |
| RV184-10HA | 2010, NC, 4 | Loamy sand | | 50 | 3.5 |) 764 2 4 | 63-94 | |
| RV185-10HA | 2010 | Sand A | 0.9 | 7.0 | | 8.34 2 8.34 | 69-94 | |
| RV186-10HA | , IA 4 2010 | Silt loan | 3 .9 | F.2 | 16.5 | 5.11 | 66-86 | |
| RV187-10HA | MO, 2000 | SilyLoam | | 5,8 | 10.9 | 0.68 | 43-72 | |
| RV188-10HA | IL, 2019 | Silt Koam | 2.3 | 7 5.9 5.9 | 11,9 | 5.32 | 69-90 | |
| RV189-10HA | , 200 | Sandy Loam | 2.1 | 9.6 | 14.1 | 5.31 | 49-66 | |
| RV190-10HA | , Alberta, 2010 | Noam O | 15 | 8 | 19 | 2.3 | 35-63 | |
| RV191-10HA | , ID 2010 | Fine Sandy (| 2.8 | 7.3 | 20.1 | 0.44 | 47-80 | |
| RV192-milA | CA, 2010 | Sandy Loam | ₩ ₩0.4 | 5.7 | 0.2 | 0 | 64-96 | |
| RVÜ3-10HA | , JO , 2010 | SiloLoam | 1.31 | 7.2 | 11.7 | 0.16 | 53-90 | |
| RV194-10HA | , ID 2010 | Loam | 1.2 | 8.1 | 24.3 | 0.16 | 40-84 | |
| RV195-10HA | JD, 2000 | Sandy Loam | 2.5 | 7.4 | 18.8 | 0.16 | 53-90 | |
| RV\$6-1014A | 2000 WA, | Loamy Sand | 1.1 | 6.9 | 10.2 | 0.56 | 48-84 | |
| RV19210HA | , WA, 2010 | Loamy Sand | 1.1 | 6.9 | 10.2 | 0.02 | 54-84 | |

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Table 6.3.2.7-3 (cont'd): Trial Site Conditions for BYI 02960 on Potatoes

| | | Soil (| Charact | teristics | a | Meteorolo | ogical Datab 。 |
|-------------------------|---|----------------|-----------------|-----------|---------------------------|---|----------------|
| Trial Identification | Trial Location (City, Country/State, Year) | Туре | OM (%) | pН | CEC (meq/100g soil) | Total Rainfall | Temp Range |
| RV198-10HA | British Columbia, 2010 | Sandy Loam | 2.47 | 6.3 | 11.5 | 7.58 | 5569 |
| RV199-10HA | , Manitoba, 2010 | Loam | 3.8 | 8.3 | 2Q,3 | 5. 5 | 42-75 |
| RV200-10HA | , NY, 2010 | Sandy Loam | 2 0.3 | 7.2 | 25 5 0° | \$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | 54-78 |
| RV201-10DA | , KS, 2010 | Silt Loam | 18 ° | 5 | £16.8 | 7.72 F.72 | 68-92 |
| RV202-10DA | , ID, 2010 | Sandy Loam | 0.7 | 7.5 | 10,8 (| 0.16 | 40-84 |
| RV203-10DA | Alberta, 2010 | Sidy Clay Loam | \$11.3 <u>{</u> | \$5.6 | % 45 % 50 % 60 | \$\frac{1}{5}\frac{1}{5 | 37-59 |

- Abbreviations used: %OM = percent organic matter; CEC = anon explange appacity
- Abbreviations used: %OM = percent organic matter CEC = carion exchange characity Data is for the interval of the month of first application through the booth of best sampling. Meteorological data were obtained from nearby government weather stations.
- NA = Not Available

Stordy Use Pattern for BYI 02960 200 SL on Potatoes Table 6.3.2.7-4:

| | 1 4) | 962 1 411231 | a, | | j (| 9 | J | <i>•</i> | | |
|-------------|--|-----------------------------|--|--|------------------|--|------------------|-----------------------------|----------------------------------|--------------------------------|
| | | | | | K p | plicatio | on _Ø | | | |
| ntification | cation (CROS State, NAFTA gioricand Yearly | dynse Product (Formulation) | of Same of the sam | Method 2 C C C C C C C C C C C C C C C C C C | Wth Stage(ABBCH) | Actual Spray Volume GPA 2003 (L/ha) | Ž | Retreatment Interval (days) | Total Rate 1b a.s.A (kg a.s./ha) | Tank Mix Adjuvants |
| RV178-₩DA | Y | BY 02960 | TRTD | Broadcast | BBCH | 30 | 0.185 | NA^a | 0.369 | Dyne-Amic, |
| | Region V 2010 | A 200 SI | TRID | Broadcast Voliar | 91 BBCH 93 | 30 (280) | 0.183 (0.206) | 8 | (0.413) | 0.25%v/v Dyne-Amic, 0.25% v/v |
| | | | | | | | Co | ontinue | ed on nex | xt page |

Table 6.3.2.7-4 (cont'd): Study Use Pattern for BYI 02960 200 SL on Potatoes

| Table 6.3.2./-4 | (contu). | study Osc I | aucin | for BY1 02 | | | | <u> </u> | | |
|----------------------|---|-------------------------------|-----------|---------------------|----------------------------|-------------------------|----------------------------------|--|---------------------------------|--------------------------------|
| | | | | | Ap | plicatio | n | | I | 01° 🔈 |
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Weight od | Timing/Growth Stage (BBCH) | Action Spray Volume GPA | Rate lb a.s./A (kgp.s./ha) | Retreatment Interval (days) | Cotal Rate lb a.S.Ackg a.s./ha) | Tark Mix Address of the |
| RV179-10HA | | BYI 02960 | TRTD | Broadcast | BBOH | 25V (280) | 0.109 | NA | -9 | Dyne-Amic, |
| | NY Region 1 2010 | 200 SL | | of foliar | BBCH | (280) (280) | 05479 19.201) | | | 0.25%v/v Oyne-Amic, 0.25% v/v |
| RV180-10HA | PA Region 1 | BY 202960 200 SL | ØŘTD ∕ | Broadcast foliar | BROCH 81 | . © 190) | 0.\$\hat{\P}89 (\hat{\P}.212) | PA ^a | ©0,372 ©0.417) | Dyne-Amic, 0.25%v/v |
| | 2010 | | | | 1 89 W | (190) (| 0.183 | \$\\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ | | Dyne-Amic, 0.25% v/v |
| RV181-10HA | J Region 1 2010 | BY\02960 \(\)200 SI\(\) | TRTD | Broadcast fornar | BBCH ≫ 85 & | \$2 (300) | 0,197 (0.221) | NAª | 0.385 (0.432) | Dyne-Amic, 0.25%v/v |
| | | | | | | ©28 (260) | 0.189 (0.211) | 8 | | Dyne-Amic, 0.25% v/v |
| RV182-10HA | NY Region 1 2010 | BÝ 02966 200. SV | TRTO | Broadcast | В ВСН 89 | 37 (340) | 0.185 (0.207) | NAa | 0.370 (0.414) | Dyne-Amic, 0.25%v/v |
| | | | |) ^v | | (350) | 0.185 (0.208) | 7 | | Dyne-Amic, 0.25% v/v |
| RV183-10HA | NY Region 16 | 102960 200 SL | TRT® | Broadcast foliar | BBCH 89 | 36 (340) 37 | 0.183 (0.205) | NAa 7 | 0.369 (0.414) | Dyne-Amic, 0.25%v/v |
| | | y | | | BBCH 91 | (350) | 0.186 (0.209) | 7 | | Dyne-Amic, 0.25% v/v |

Table 6.3.2.7-4 (cont'd): Study Use Pattern for BYI 02960 200 SL on Potatoes

| 1 able 6.3.2./-4 (cor | | | for BY1 02 | | | | | | |
|-----------------------|--------------------------------|-----------|---------------------|----------------------------|----------------------------|---|--|-----------------------------------|--|
| | | | | Ap | plicatio | n | | l | 01° % |
| Trial Identification | | Plot Name | Weethod | Timing/Growth Stage (BBCH) | Actual Spray Volume GPA | Rate Ib a.s./A (Red. s./ha) | Retreatment Interval (days) | Total Rate Ib a.S.A. (kg a.s./ha) | Cor Language Cor. Cor. Cor. Cor. Cor. Cor. Cor. Cor. |
| RV184-10HA Regio | NC BYI 0296 n 2 2010 200 SL | 0 TRTD | Broadcast foliaf | BBOH | 25 (260) | 0.179 (Q 200) | NA | 0°.363 (9.406) | Dyne-Amic, |
| ikegio. | | | | BBCH | (280) (280) | \$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | | | ©yne-Amic, 0.25% v/v |
| RV185-10HA | FL BY 296 n 3 2010 SL | 0∜₽ŔTD | Broadgast foliar | BISOCH 91 | 30 (28 0) | 0.\$\P\$3 \$\phi\$0.205) | A ^a | © 367 © 0.411) | Dyne-Amic, 0.25%v/v |
| | | | | y" 93 "@ | (280) (| 0.184 × (0.206) | \$\\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ | | Dyne-Amic, 0.25% v/v |
| RV186-10HA | NA BY¥0296 n | 0 TRTD | Broadcast foliar | BBCH ≥ 93 & | ¥9 (180) | (0.206) | NAa | 0.366 (0.410) | Dyne-Amic, 0.25%v/v |
| | n.5 2010 0200 Sto | | | PBCH | ~20 ~20 ~190) | 0.182 (0.204) | 7 | (0.110) | Dyne-Amic, 0.25% v/v |
| | BY10296 Region 5 040 | OKTRTD | Broadcast folkar | B 6 €H \$45 | 20 (190) | 0.182 (0.204) | NAa | 0.363 (0.407) | Dyne-Amic, 0.25%v/v |
| | | | | BBCH 45 | 20 (190) | 0.182 (0.204) | 7 | | Dyne-Amic, 0.25% v/v |
| RV188-10HA | BYC0296 egion 5 200 SI | TRTD | Broadcast foliar | BBCH 93 | 22 (210) | 0.178 (0.200) | NAa | 0.364 (0.408) | Dyne-Amic, 0.25%v/v |
| RV188-10HA | | | | BBCH 95 | 25 (240) | 0.186 (0.209) | 8 | | Dyne-Amic, 0.25% v/v |



Table 6.3.2.7-4 (cont'd): Study Use Pattern for BYI 02960 200 SL on Potatoes

| | + (conta). | Study Ose I | | | | plicatio | | - | | |
|----------------------|---|--|-----------|---------------------|----------------------------|--------------------------------|--------------------------------------|---------------------------------------|---------------------------------|--|
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Wethod | Timing/Growth Stage (BBCH) | Actual Spray Volume GPA | Ratelb a.s./A (Rega.s./ha) | Retreatment Interval (days) | Total Rate Ib a.S. (kg a.s./ha) | Collaboration Co |
| | Region 5 2010 | BYI 02960 200 SL | | 4 | BBCH | .0 | 0 × 84 0 · 207 × | | 0°.368 (0.413) | Dyńe-Amic, 0.25%/v 0.25%/v Oyne-Amic, 0.25% v/v |
| V190-10HA I | , Alberta Region 7 2010 | BY 100 29600 200 SL | | Broadcast foliar | BBCH 39 | (140) (140) (140) | (3 9.211) | A A A A A A A A A A A A A A A A A A A | © 369 © 414) | Agsurf, 0.25% v/v Agsurf, 0.25% v/v |
| RV191-10HA | Region N | BYI (0) 600 200 SL | POTD (| Broadcast / foliar | BBCH | 22 (2)(0) (2)(0) 200) | 0.184 (0.206) 0.180 (0.201) | NAa 7 | 0.364 (0.408) | Dyne-Amic, 0.25%v/v Dyne-Amic, 0.25% v/v |
| RV192-10HA | Rogion 10, 2016 | ************************************** | TRITO | Froadcast foliar | BBCH BBCH | 39 | 0.180 (0.202) 0.180 | NAa | 0.360 (0.403) | Dyne-Amic, |
| RV 193-10HA | ID S | BY182960 | ACR TD | Broadcast foliar | 91 BBCH 91 | 30 (280) | 0.184 (0.206) | NAa | 0.372 (0.417) | 0.25% v/v Dyne-Amic, 0.25%v/v |
| | Region 11 | | \$ | | BBCH 91 | 31 (290) | 0.189 (0.211) | 6 | | Dyne-Amic, 0.25% v/v |



Table 6.3.2.7-4 (cont'd): Study Use Pattern for BYI 02960 200 SL on Potatoes

| Table 6.3.2.7- | 4 (cont a): | Study Use | Pattern | for BYI 02 | 960 20 | 0 SL 0 | n Potato | es | | 1 |
|---|---|-------------------------------|---------------------------------------|---------------------|----------------------------|-------------------------|--|--|---------------------------------|---|
| | | | | | Ap | plicatio | n | | ı | <i>@</i> ,° |
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Wethod | Timing/Growth Stage (BBCH) | Actual Spray Volume GPA | Rate lb a.s./A (kgp.s./ha) | *& & & & & & & & & & & & & & & & & & & | Total Rate lb a.s. KKg a.s./ha) | CO2 CO4 CO4 CO4 CO4 CO4 CO4 CO4 CO4 CO4 CO4 |
| RV194-10HA | , ID | BYI 02960 200 SL | TRTD | Broadcast | BB©H | 1.760) (4.60) | 0. 1 86 (Q2 09) | | 0.375 | Dyne-Amic, |
| | Region 11 2010 | Q, | | | BBCH | (1)7 (0)160) | (\$\)\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | | | 0.25%v/v Dyne-Amic, 0.25% v/v |
| RV195-10HA | , ID Region 11 | BY1002960 200 SL | ©RTD | Broadcast foliar | BROCH 591 | . © 80) | 0.\$\tilde{\Psi}84 (\phi).206) | A ^a | (0,369 (0,414) | Dyne-Amic, 0.25%v/v |
| DVIOC 1911 | 2010 | | | | BBCH 95 | (280) L | 0.185 | | 0.370 | Dyne-Amic, 0.25% v/v |
| RV196-10HA | Region 11 | BYW02960 200 SI | TRID | Broadcast fornar | BBCH 3 48 | 25 (230) | 0,182 (0.204) | NAª | 0.368 (0.412) | Dyne-Amic, 0.25%v/v |
| E. C. C. C. C. C. C. C. C. C. C. C. C. C. | \$ * 4 | | | | | © ₂₅ (240) | 0.186 (0.209) | 7 | | Dyne-Amic, 0.25% v/v |
| RV197-10HA | Region 11 2010 | B\$1 02968 200 \$1 | TRTO | Soliar | ₿ ВСН 47 | 20 (190) | 0.185 (0.208) | NAª | 0.367 (0.412) | Dyne-Amic, 0.25%v/v |
| Z | | | \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | | BBCH 48 | 20 (190) | 0.182 (0.204) | 7 | | Dyne-Amic, 0.25% v/v |
| RV194-10HA | Region 115 | SYI 02900 200 SL | TRTD | Broadcast foliar | BBCH 93 | (160) | 0.186 (0.209) | NAª | 0.375 (0.421) | Dyne-Amic, 0.25%v/v |
| | | | | | BBCH 95 | 17 (160) | 0.189 (0.212) | 8 | | Dyne-Amic, 0.25% v/v |



Table 6.3.2.7-4 (cont'd): Study Use Pattern for BYI 02960 200 SL on Potatoes

| Table 6.3.2.7- | 4 (cont'd): | Study Use l | Pattern | for BY1 02 | 960 20 | 0 SL 0 | n Potato | es | | |
|----------------------|---|-------------------------------|-----------|--|----------------------------|-----------------------------|---|----------------------------|---------------------------------|---|
| | | | | | Ap | plicatio | n | | 1 | @.° |
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Weeklood | Timing/Growth Stage (BBCH) | Actual Spray Volume GPA | Rate Ib a.s./A (RgB.s./ha) | Retreating Interval (days) | Total Rate lb a.s. (kg a.s./ha) | Tath Mix Adjuxants 29 |
| RV195-10HA | Region 11 2010 | BYI 02960 200 SL | | Broadcast foliation | | | (1) 185 (1) 207) | | | Dyne-Amic, 0.25%v/v 0.25%v/v Oyne-Amic, 0.25% v/v |
| RV196-10HA | , WA Region 11 2010 | BY 29600 2900 SL | | | BBCH 48 | 25 (240) | 0.\$\P\$2 \$\phi\$0.204) \$\phi\$0.186 \$\phi\$0.209\$ | PA ^a | (0,368 (0,412) | Dyne-Amic, 0.25%v/v Dyne-Amic, 0.25% v/v |
| 1 2 | Region 11 2000 | BYW02960 200 SI | TRTD | Broadcast for a fo | BBCH 7 47 2 0 | 20 (190) (20 (190) | | NA ^a | 0.367 (0.412) | Dyne-Amic, 0.25%v/v Dyne-Amic, 0.25% v/v |
| RV198-10HA | British Columbia Region \$2 2010 | BN 02968 200 SV | TRES | Broadcast Soliar | BBCH | 22 (200) 21 | 0.190 (0.213) | NA ^a | 0.374 (0.419) | Agral 90, 0.25% v/v Agral 90, |
| RV198-10HA | | | Q | | 43 | (200) | (0.206) | ontinue | ed on nex | 0.25% v/v |



Table 6.3.2.7-4 (cont'd): Study Use Pattern for BYI 02960 200 SL on Potatoes

| 1 able 6.3.2.7- | | Ciddy Osc I | attern | 101 11 11 02 | | plication | | | | |
|----------------------|---|-------------------------------|-----------|---------------------|----------------------------|----------------------------|--------------------------------------|----------------------------|----------------------------------|---|
| | FTA | lation) | | | | | | (sá | .s./ha) | |
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Weethood | Timing/Growth Stage (BBCH) | Actual Spray Volume GPA | Rate lb a.s./A (Rgb.s./ha) | Retreating Interval (days) | Total Rate lb a.s. K(kg a.s./ha) | Tagk Mix Advivants 29 |
| RV199-10HA | Manitoba Region 14 2010 | BYI 02960 200 SL | TRTD | Broadcast of foliar | BBCH | 150 (660) Q (180) | 05489 05489 05.212) | | | Agsurf, 0.25% a/v Agsurf, 0.25% v/v |
| RV200-10HA | , NY Region 1 2010 | | | | ВВСН 7 93 | \$30 \$280) | 0.083 (9.205) 0.183 (0.205) | Ö | 20,366 (0.410) | Dyne-Amic, 0.25%v/v Dyne-Amic, 0.25% v/v |
| RV201-10DA | KS Brgion 2010 | | TRTD | Broadcast foliar | BBCH | ©16 ©16 (150) | 0.188 (0.211) | NA ^a | 0.375 (0.420) | Dyne-Amic, 0.25%v/v Dyne-Amic, 0.25% v/v |
| RV202-10DA | Region 11 2010 | 1 02969 200 St | | Broadcast Foliar | | (110) | 0.183 (0.205) 0.184 (0.206) | NA ^a | 0.366 (0.411) | Dyne-Amic, 0.25%v/v Dyne-Amic, 0.25% v/v |
| RV203-10DA | Alberta Region 12 2010 | 841 02980 200 SL | TRŤĐ | Broadcast foliar | BBCH 49 BBCH | 11 (100) | 0.186 (0.209) | NA ^a | 0.371 (0.416) | Agral 90, 0.25% v/v Agral 90, |
| | | | | | 49 | (100) | (0.207) | | | 0.25% v/v |



Duplicate composite samples of potato tubers were collected at the intended pre-harvest interval (PHI) of 7 days. The actual samplings ranged from 6 to 8-days. In four decline trials, duplicate composite potato tuber samples were collected from the treated plots 0, 3, 7, 13 to 14, and 19 to 21 days after the last treatment. Single composite samples of potato tuber were collected from the control plot on the same day the target 7-day samples were collected from the treated plots.

The residue(s) of BYI 02960, DFA, and DFEAF were quantitated by HPLC-MS/MS using stable isotopically labelled internal standards. The individual analyte residues were summed to give a total BYI 02960 residue. Residue measurements below the analyte LOC were summed into the total BYI 02960 residue value as the analyte LOQ value.

Findings

Concurrent recoveries of BYI 02960, DFA, and DFEAT were measured with each set of samples to verify method performance. All recoveries were corrected for any interferences in corresponding controls. The overall mean of the recoveries for each matrix was within the acceptable range of 70 to 110%, and the standard deviation values were below 20%. (Table 6.3.2.7-50)

Table 6.3.2.7-5: Summary of Recoveries of BVI 02960 from Potato

| Crop Matrix | Analyte Level Size Recoveries (%), (ppm) (n) | Mean Recovery (%) a | Std Dev (%) |
|-----------------|--|---------------------|-------------------|
| | 112, 96, 72, 92, 76, 78, 83, 85, 78, 103, 38, 120, 22, 93, 38 | 88 | 15 |
| | 3 4 5 102 9, 86 | 92 | 9 |
| Potato Tuber | 82, 80, 72, 94, 69, 73, 66, 90, 110, 95, 109, 102, 102, 102, 96 | 89 | 15 |
| I uber | $ (0.2 \times 30^{\circ}) \times 90.81,87$ | 86 | 5 |
| | DEEAF 0.01 92, 95, 101, 109, 110, 100, 100, 92, 103, 75, 113, 112, 96, 100 | 100 | 10 |
| | ©.2 2 81, 95, 103 | 93 | 11 |

a Mean Recovery = mathematical average of all recoveries

The freezer storage stability study indicates that BYI 02960 residues were stable in a representative crop of the respective crop commodity (high starch content) during frozen storage for at least 18 months (557 days) prior to analysis. The maximum storage period of frozen samples in this study for BYI 02960 was 31% days. A symmary of the storage conditions are shown in the Table 6.3.2.7-6.

Table 6.3.2.2-6. Summary of Storage Conditions for Potatoes

| Residue Component(s) | Matrix (RAC) | Maximum Average Storage Temperature (°C) ^a | Actual Storage Duration months (days) | Interval of ° Demonstrated Storage Stability months (days) ° |
|-------------------------|-----------------|---|---|--|
| BYI 02960 | Potato Tuber | < -20 | 9 (31 4) | 18 7 |
| DFEAF | Potato Tuber | < -20 | (318) | \$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ |
| DFA | Potato Tuber | 2 -20 | Q (318) X | 1857 4 |

- The maximum average storage temperature is from the time of sample receipt at REP until sample extraction and is the maximum of all average freezer temperatures at BRI and Pyxint. While preparing for cample analysis, the samples were maintained in a laboratory freezer.
- The storage duration is the time from field sampling through the last sample extraction.
- The storage duration is the time from field sampling through the last sample extraction.

 | and A | 2013, Storage stabilities of BM 02960, fiftuoroacetic agid, and diffuoroethyl-amino-furanone in plant matrices. Bayer Crops ciences, eport No. RARK P046 general extractions are shown in Table 6.3.2.7-7. . 2012, Storage stability of BY102960, Affluoroseetic acid, and and A.

Tier 2, IIA, Sec. 4, Point 6: Flupyradifurone (BYI 02960)

Total BYI 02960 Residue Data from Potato Tubers after Two Foliar Applications Table 6.3.2.7-7: of BYI 02960 SL

| - | | | ı | | T | | | T | 1 | | | <i>®</i> |
|----------------------|---|---------------|--------------------|-----------|--------------------------------------|---------------|--------------------------|---|--|---|--|----------|
| Trial Identification | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | Total Rate Lb a.s./A (kg a.s./ha) | % Day Matter | Sampling interval (days) | Residae (mg/kg) | DFA Residue | DFEKRESidue Ang a.s. & quiv./kg) | - 10 | |
| RV178- 10DA | , NY, Region 1, 2010 | | | | | 20 * | © 2721 | <0.018 0.047 <0.010 0.015 <0.010 0.010 0.010 0.011 | <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 | <0.010 \$0.010 \$0.010 \$0.010 <0.010 | <0.070 20.073 Avg 0.072 0.070 0.075 Avg 0.073 | |
| RV179-4 10HA | NY, Region Q 2010 | PRTD. | Carola Dork Pad | Tuber | | 28 28 | | <0.010 <0.010 | <0.050 <0.050 | <0.010 <0.010 | <0.070 <0.070 Avg: <0.070 | |
| RV180- 10HA | PA Region 1, 2010 | TRIBO | Dark Red | Taber 2 | 50.417) | ²² | 8 | <0.010 <0.010 | 0.087 0.085 | <0.010 <0.010 | 0.11 0.10 Avg: 0.11 b | |
| RV189/- 10HA | NJ, Region 1, | TRAD | | Tuber | 0.385 (0.432) | 14 | 7 | <0.010 <0.010 | <0.050 <0.050 | <0.010 <0.010 | <0.070 <0.070 Avg: <0.070 | |
| RV182- 10HA | NY, Region 1, | T ® TD | NorDonna | Tuber | 0.370 (0.414) | 23 | 7 | <0.010 <0.010 | <0.050 <0.050 | <0.010 <0.010 | <0.070 <0.070 Avg: <0.070 | |

Table 6.3.2.7-7 (cont'd): Total BYI 02960 Residue Data from Potato Tubers after Two Foliar Applications of BYI 02960 SL

| | | | тррпсанона | | | | | | | | | . 0 |
|----------------------|---|---------------|-------------------|----------------|--------------------------------------|--------------|--------------------------|---|---------------------------|--------------------------------------|------------------------------------|-----|
| Trial Identification | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | Total Rate Lb a.s./A (kg a.s./ha) | % Den Matter | Sampling interval (days) | Residue (mg/kg) | DFA Residue | DFERRESIDUE fing a.s. & quiv./kg) | Total By 102966 Residue | |
| RV183- 10HA | NY, Region 1, 2010 | TRTD | NY-129 | Tuber | 0.369 (0.4)(4) | 17 | 7 | \$\frac{1}{2}\text{0.016}\text{0}\text{0}\text{0.016}\text{0}\t | | <0.010 0.010 | <0.070 0.070 Avg <0.070 | |
| RV184- 10HA | , NC, Region 2, 2010 | TRTD | Snowden | Turber | 0.303 | | 7 ~ | <0.010 <0.010 <0.010 | \$2083 \$0.057\$ \$ | Ø0.010 | 0.10 0.07 Avg. 0.090 | |
| RV185- 10HA | Region 3, 2010 | TRTD | | | | ~ | | 0.021 0.018 | | Ö Ö | 0.078 Avg: 0.079 | |
| RV186- 10HA | Region 5, 2010 | TRAJO | Kennebec | | (0.44 6) | , 13 | | <0.010 <0.010 <0.010 | ~0.050 <0.050 ~ | <0.010 <0.010 | <0.070 <0.070 Avg: <0.070 | |
| RV187- 10HA | Region 5, 2010 | T R ŤD | Kennebec | Tuber, | 0.363 | 25 * | | ©0.010 <0.010 © | <0.050 <0.050 | <0.010 <0.010 | <0.070 <0.070 Avg: <0.070 | |
| RV188-« 10HA | IL, Region 5 | ØRTD \$ | Opennebec 1 | Tuber | | 160 (%) | | <0.010 <0.010 | <0.050 <0.050 | <0.010 <0.010 | <0.070 <0.070 Avg: <0.070 | |
| RV189- 10HA | Région 5, 2010 | TRTO | burbank s | Tuber | 0:368 0:413) | 23 | 7 | <0.010 0.010 | <0.050 <0.050 | <0.010 <0.010 | <0.070 <0.070 Avg: 0.070 | |
| RV190- 10HA | , Region 7, 2010 | TRAD | Russet burbank | Quber Quber | 0.369 (0.414) | 23 | 7 | <0.010 <0.010 | <0.050 <0.050 | <0.010 <0.010 | <0.070 <0.070 Avg: <0.070 | |
| RV191- 10HA | Region 11, | TRID | Ranger Russet | Tuber | 0.364 (0.408) | 29 | 7 | <0.010 <0.010 | <0.050 <0.050 | <0.010 <0.010 | <0.070 <0.070 Avg: <0.070 | |

Table 6.3.2.7-7 (cont'd): Total BYI 02960 Residue Data from Potato Tubers after Two Foliar Applications of BYI 02960 SL

| | | | тррпсанона | | 102700 | | | | | | | . 0 |
|----------------------|---|--------------|--------------------|------------|---|-----------------------|--------------------------|--------------------------------------|--------------------------------------|--------------------------------------|-------------------------|-----|
| Trial Identification | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | Total Rate Lb a.s./A (kg a.s./ha) | % Den Matter | Sampling interval (days) | Residue (mg/kg) | DFA Residue | DFERRESIDUE fung a.s. & quiv./kg) | Total By 102960 Residue | |
| RV192- 10HA | , CA, Region 10, | TRTD | Red La Soda | Tuber | 0.36 0) (0 21 03) | 18 | 7 | 0.010° 0.034 | <0.050 <0.050 | <0.010 <0.010 | <0.070 \$0.094 | |
| | 2010 | | | (| | Þ° | | | y Ş |) ' '^ ' | 0.082 | |
| RV193- | ID, | TRTD | Dark Red | Tuber | 0.392 (0.417) | 2 | 7 | <0.010 | <0,050 √0,050 √0.050 √0.050 | < 0.010 | Ø.070@ | y |
| 10HA | Region 11, 2010 | | N | | (4 417) | V . | 4 | | 0.050 | 30.010 | <0.070 Avg. | |
| | | | S S | | | | | | | | <i>§</i> 0.070 | |
| RV194- 10HA | , ID, Region 11, | TRTD | Russet Burbank | Tuber | 0.375 0.421) | 1 9 | | < 0010 < 0010 < 0.010 | €0.050 €0.050 | ₹0.01 0 <0.010 | <0.070 | |
| 1011/1 | 2010 | | | | 00.4210 0 | 1 | .@ ` }(| | , 10.00 | 0.010 | Avg: | |
| | | Ò | | Ž | W W | 0 | ~ | | | Č) | <0.070 | |
| RV195- 10HA | ID, | TRAD | Russet Norkotab | ← | ©.369 (0.444) | 19 | | ₹0 .010,~ ₹. <0.010 | ₹0.050 <0.050 | <0.010 <0.010 | <0.070 <0.070 | |
| IUIIA | Region 11, 2010 | 4 | Sur Kolday | 0 | (0.484) | | | 0.010 | | <0.010 | Avg: | |
| | | | | | \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | \mathbb{Q} | W Es | L | V U | | < 0.070 | |
| RV196- | , NA, | TRTD | | Tuber | 0.368 | 31 * | | ©0.010 | <0.050 | <0.010 | <0.070 | |
| 10HA | Regio 11, 2010 | | | l uber, | (0,40/2) | | | <0.010 | < 0.050 | < 0.010 | <0.070 Avg: | |
| | | | |) (| | 8 ⁴ 3¥√ | W , | O O | | | < 0.070 | |
| RV197- | , WA, | T RTD | Norkotah | Tuber | 0.3 6 7 (0.412) | 34 | 7. | 0.057 | < 0.050 | < 0.010 | 0.12 ° | |
| 10HA | Region 11, 2010 |) | | 0' *y | (10,412) | | <u>, a</u> | 0.016 | < 0.050 | < 0.010 | 0.076 Avg: | |
| | 2010 | | Š Š | / <u>*</u> | | | 7 | | | | 0.097 | |
| RV198- | | TRTD | Russet | Tuber | Ø:374 | 23 | 7 | 0.046 | < 0.050 | < 0.010 | 0.11 | |
| 10HA | British | 0 | Burbank | | (0.419) | ÿ | | 0.027 | < 0.050 | < 0.010 | 0.087 Avg: | |
| | Region 12, | | | | | | | | | | 0.097 | |
| RV199- | 2010 | TRÆD |) | Vuber | 0.375 | 29 | 7 | < 0.010 | < 0.050 | < 0.010 | < 0.070 | |
| 10HA | Mani t @a, | IROND | | r ubel | (0.421) | _ <u></u> | / | <0.010 | < 0.050 | < 0.010 | <0.070 | |
| | Region 14, |) <u>(</u> | | _@; | | | | | | | Avg: <0.070 | |
| DV200 | ₩010 ₩, ₩, | TRTD | % ~ |) T-1 | 0.266 | 21 | 7 | <0.010 | <0.050 | <0.010 | | |
| RV200- 10HA & | Region 1. | <u> </u> | Reba | Tuber | 0.366 (0.410) | 21 | 7 | <0.010 0.014 | <0.050 <0.050 | <0.010 <0.010 | <0.070 0.074 | |
| | Region 1, | | ľ | | | | | | | | Avg: | |
| LE, " | Lø | 12° | | | | | | | | | 0.072 |] |

Table 6.3.2.7-7 (cont'd): Total BYI 02960 Residue Data from Potato Tubers after Two Foliar Applications of BYI 02960 SL

| | | | | | 1 02960 | | | | | | | . 0 |
|----------------------|---|---|--|--|--------------------------------------|--|--------------------------|--|---|--|---|-----|
| Trial Identification | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | Total Rate Lb a.s./A (kg a.s./ha) | % Dow Matter | Sampling interval (days) | Resida (mg/kg) | DFA Residue | DFBAKResidue Ang a.s. Equiv./kg) | Total-Byl 029 | |
| RV201- 10DA | , KS, Region 5, 2010 | | | | | 16 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | 14 | 0.046 0.021 0.012 0.012 0.016 0.010 0.016 0.016 | <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 | < 0 0010 \$\frac{0}{2}0.010 | 0.081 Avg 0.091 0.072 0.076 Avg 0.074 | |
| RV202- 10DA | J. J. J. J. J. J. J. J. J. J. J. J. J. J | TRID SA SA SA SA SA SA SA SA SA SA SA SA SA | Ranger Ra | Tuber of the state | 3.366 (0.41d) | 23 28 24 24 25 | 7 | <0.010 <0.010 <0.010 <0.010 <0.010 <0.010 <0.010 <0.010 | <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 0.102 | <0.010 <0.010 <0.010 <0.010 <0.010 <0.010 <0.010 <0.010 | <0.070 <0.070 Avg: <0.070 <0.070 Avg: <0.070 <0.070 <0.070 Avg: <0.070 0.093 0.12 Avg: 0.11 <0.070 0.13 Avg: 0.098 | |

Table 6.3.2.7-7 (cont'd): Total BYI 02960 Residue Data from Potato Tubers after Two Foliar Applications of BYI 02960 SL

| | | | 11 | | | | | | | | | . 0 |
|----------------------|---|-----------|--------------|-----------|---------------------------------------|--------------|--------------------------|--|-------------------------|---|--|----------------|
| Trial Identification | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | Total Rate Lb a.s./A (kg a.s./ha) | % Den Matter | Sampling interval (days) | By 102960 Residue (mg/kg) | DFA Residue | DFERRESidue ong a.s. equiv./kg) | D 20 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | |
| RV203- | | TRTD | Russet | Tuber | 0.37 | 30 | Λ | \$0.0166° | <0.050 | <0.010 | <0.070 | |
| 10DA | , | | Nacota | | 0.37 1 (0 2)16) | | | <0.040 | <0.050 | √ 0.010 | 1 30.0 VA | D ^y |
| | Region 14, | | | | | ° | 2 | | |) ````\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | Avg() <0.070 | |
| | 2010 | | | . (| | | | © 0.0169° < 0.0240° | | 4 | <0.070 | . 0 |
| | | | | | ~ | 20 | 3 | <0,010 | <0,050 | < 0.010 | 6 0.070 | |
| | | | | Ş, | Y (| | | <0.010 | ₹ 0.050 | ≠ 0.01 <u>0</u> | <0.070 | 1 |
| | | | Q | | | ~ | | Y Ö | | | 0.070 <0.070 A@: <0.070 | |
| | | | | ~~ | | \$ | | | Ş | Ţ, | \$0.070 €j | |
| | | | | Ò | D S | 23 | | <0.010 <0.010 <0.010 <0.010 | 0.050 0.050 0.050 | © 0.010 | < 0.070 | |
| | | | | <i>y</i> | o ô | , " | .W " | ©0.010 C |)*<0.0 5 @ | <0.010 | <0.070 Avg: | |
| | | | | | 4 | _ | 1 2 | Ø.010 <u>.</u> | , Ö | O | <0.070 | |
| | | ~ © | 0" | | | . 24 | @18 | * O 1 0 * | × 0.50 | Q | | - |
| | | | | | | 7 24 ((| | ₹0.0102 | <0.0500 <0.0500 | <0.010 <0.010 | <0.070 <0.070 | |
| | | | | 0, | | | ^ | <0.010 | | 10.010 | Avg: | |
| | | | | Ş, | | | w Z | 4 | V V 1 | | Avg: <0.070 | |
| | | | | | | 21 * | 19 | \$0.010° | < 0.050 | < 0.010 | < 0.070 | 1 |
| | | Ď, i | | K O | | ð | | <0.010 | < 0.050 | < 0.010 | < 0.070 | |
| | \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | | | 3 / | | Ţ | | | | | Avg: | |
| | | | |) V | | ~ | | \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | | | < 0.070 | |

- a Total BYI 02960 residue is the sum of BYI 02960, DFA, and DFEAF residue in parent equivalents. Residue measurements below the analyte LOQ were summed into the total BYI 02960 residue value as the analyte LOQ value. These totals represent the upper liquit of what the residue levels might be.
- b Highest average field to W(HAFF) residue found in potato tubers.
- c Maximum residue found in polato tubers

TRTD = treated plot receiving two foliar spray applications

Conclusion

Twenty-six field trials were conducted to measure the magnitude of total BYI 02960 residues in/on potato tubers following two soliar spray applications of BYI 02960 200 SL. The total BYI 02960 residue data are shown in Table 6.3.2.7.8.



Table 6.3.2.7-8: Summary of Residue Data for Total BYI 02960 from Potato Tubers

| | _ | | | Total BYI 02960 Residue Levels (ppm) | | | | | | | |
|--------------|-----------|--|-------------|--------------------------------------|---------------|---------------|------------------|--------|--------------------|--|--|
| Commodity | Plot Name | Total Appl. Rate Ib a.s./A (kg a.s./ha) | PHI (days)³ | n | Min at PHI | Max at PHI | Max after PHI | HÅRT 2 | Median 3 | | |
| Potato Tuber | TRTD | 0.359 to 0.385 (0.402 to 0.432) | 7 | 26 | <0.070 | 0.12 | 0.13 | 0.11 | \$0.012 \$0.012 | | |

- 1 TRTD = treated plot receiving two foliar spray application
- 2 HAFT = Highest Average Field Trial
- 3 calculated on the basis of residue values at the PHI
- 4 Sampling day showing highest residue

Total BYI 02960 residues were generally low in potatoes; the maximum esidue detected at the PHL of 7 days was 0.12 mg/kg. The four decline trials indicated that the residues placeaued in three trials at a time interval of approximately 7 to 14 days. The overall highest total BYL 02960 residue was detected in a sample collected 21 days after the fast application. The residue was hightly higher than the highest residue detected at the PHD however it was in the same range as the sample collected at the PHI. Therefore it was concluded that the residue data provided in this report are suitable for regulatory purposes.

Residue data from AUSTRALIA

BYI 02960 is to be registered in Australia for use as a coliar treatment in of potato and sweet potato. The use pattern on Australia is summarized in Table 6.3.2.7-9.

A total of eight trials was conducted in potaces sweet potatoes. The tudies are described below.

Table 6.3.2.7-9: Critical aspects of thouse pattern for application of BYI 02960 200 SL to potatoes and sweet potatoes

| Situation | Maximum no of applications | Maximum application rate Per treatment Per season | Minimum Spray interval | WHP |
|-----------|----------------------------|--|---------------------------|--------|
| Field | 3,9 | 150 g a.s./ha 450 g a.s./ha | 7 days | 7 days |

Residues trials supporting this use pattern are Presented in 2 study reports.

| Report | KIIA 63.2.7/02; 2011 |
|--------------------|--|
| Title Report No & | Amodment no. 1 - Determination of residues of BYI 02960 in potatoes and sweet potatoes following two or three applications of BYI 02960 200 SL at rates of 100, 150 or 200 g in has seven days apart |
| Report No & | BCS-052.02 including sites C516, C517, C518 and C519, dated September 23, 2011 M-415292-02-1 |
| Guidelines | Australian Pesticides and Veterinary Medicines Authority, Manual of Requirements and Guidelines, Edition 3 |
| GLP | Yes |



| Report | KIIA 6.3.2.7/03; 2012 |
|-------------|---|
| Title | Amendment no. 1 - Determination of residues of BYI 02960 in potatoes and sweet potatoes following two or three applications of BYI 02960 200 SL at rates of 100, 150 or 200 |
| | a.i./ha seven days apart |
| Report No & | BCS-0358.02 including sites C538, C539, C632 and C541, dated February 27, 2012 |
| Document No | M-426841-02-1 |
| Guidelines | Australian Pesticides and Veterinary Medicines Authority, Manual of Requirement and |
| | Guidelines, Edition 3 |
| GLP | Yes V Q Q Q X |

Material and methods

Eight trials were conducted in Australia to measure the magnitude of residues of BYI 02960 and its metabolites following application of BYI 02960 200 SI, to potate and sweet potato crops. These included 6 trials in potatoes and 2 trials in sweet potato. Trials were conducted over two seasons with 4 trials in 2010, and 4 trials in 2011.

Trials were conducted in the field for both potatoes and sweet potatoes. Treatment were applied by hand held boom sprayer applying spray volumes of \$13-644 L/ha Potatoes) and \$92-669 L/ha (sweet potatoes).

For potatoes and sweet potatoes, BYL02960 000 SL was applied at target rates equivalent to 100 g a.s./ha (i.e. 0.67 x maximum proposed rate), 150 g a.s./ha (1.0 x proposed rate) and 200 g a.s./ha (1.34 x proposed rate) in M trials.

In the first year of trials (2019) for both potatoes and sweet potatoes application of each treatment was made either or 3 times, at approximately 7 day intervals. Samples were collected at approximately 7, 10 14 and 21 days after the econd application, and at approximately 0, 1, 3, 7, 10, 14 days after the third application.

For the second year of trials (2011) for both potatoes and sweet potatoes application of each treatment was again made either 2 or 5 times, at approximately 7 day intervals, however it was necessary to extend the sampling times. For both petatoes and sweet potatoes samples were collected at approximately 7, 14, 21, 28 and 35 days after the second application and at 0, 7, 14, 21, 28 and 35 days after the third application. Trial details including location, year, application rate, application timing, application no. and sampling times are summarised in Table 6.3.2.7-10 for potatoes and 6.3.2.7-11 for sweet potatoes.



Trial details for residue trials with BYI 02960 200 SL in potatoes Table 6.3.2.7-10:

| Study No. | Crop | | Ap | plication | | ذ å |
|--|--|--|---|-----------------------------------|--------------------------------------|--|
| Test Site | Variety | R | ate | Application | No. of | Sampling |
| Location Year Annex Pt | Situation | Product (mL/ha) | Active Substance (g a.s./ha) | Timing | Applications Siming of applications) | Timing . |
| BCS-0352 C516 2010 KIIA 6.3.2.7/01 | Potatoes Russet Burbank Field | 500 750 1000 | 100 150 200 | B=7 DBFH C=0 DBFH | 2 (A and B) 3 (A, B and C) | 7 DAAB 10 DAAB 14 DAAB 21 DAAB 0 DAAC 3 DAAC 7 DAAC 7 DAAC |
| BCS-0352 C517 WA 2010 KIIA 6.3.2.7/01 | Potatoes Nadine Field | 500 750 1000 Q | | A=V4 DBCH B=6 DBFH C=0 DBFH | 2 (A arka B) 3 (A B and C) | 6 PAAB 9 DAAB 9 DAAB 22 DAAB 0 DAAC 1 DAAC 3 DAAC 7 DAAC 11 DAAC 16 DAAC |
| KIIA 6.3.2.7/04 | Potatoles Sebago | | Y 17 4. | | 2 (A and B) 3 (A, B and C) | 8 DAAB 11 DAAB 15 DAAB 22 DAAB 0 DAAC 1 DAAC 3 DAAC 7 DAAC 11 DAAC 14 DAAC |
| BCS-0358 C539 WA 2011 KIIA 6.3.2.7/02 | Cotatoe Nadine Field | 7500 × 75 | 150 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | A=15 DBFH B=6 DBFH C=0 DBFH | 2 (A and B) 3 (A, B and C) | 6 DAAB 13 DAAB 20 DAAB 27 DAAB 34 DAAB 0 DAAC 7 DAAC 14 DAAC 21 DAAC 28 DAAC 35 DAAC |
| | | \$ | 1 | | Continued on i | next page |

Table 6.3.2.7-10 (cont'd): Trial details for residue trials with BYI 02960 200 SL in potatoes

| Study No. | Crop | | Ap | | Ø)° | |
|----------------------------|---|---------------------------|------------------------------------|---|--------------------------------------|---|
| Test Site Location | Variety | R | late | Application | No. of | Sampling |
| Year Annex Pt | Situation | Product (mL/ha) | Active Substance (g a.s./ha) | Timing | Applications Fiming of applications) | |
| BCS-0358 C632 | Potatoes Nicola | 500 750 | 100 150 | A=14 DBFH B=7 DBFH € | 2 (A and B) 3 (A, B and C) | PAAB PADAB PADABB |
| 2011 KIIA 6.3.2.7/02 | Field | 1000 | | C=0 DBFH | TA, Bange () | 721 DÃAB 28 DÃAB 35 DAAB 20 DAAC 7 DÃAC 14 DAAC 21 DAAC |
| BCS-0358 C541 | Potatoes Sebago Field | 500 750 1000 500 | 200 G | A=14 DBFH DB=7 19 BFH C=0 DBFH DBFH DBFH DBFH DBFH DBFH DBFH DBFH | 2 (A and B) 3 3 (A, B and C) | 28 DAAC 35 BAAC 7 DAAB 23 DAAB 21 DAAB 6 DAAC 14 DAAC |
| KIIA 6.3.2.7/02 | \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | 1 X 1 | | | | 23 DAAC |

DBFH = days before first harvest

DAAB = Days after application B of A and B
DAAC = Days after application of A
DAAC = Days after application of A

Trial details for residue trials with BY1 02960 200 SL in sweet potatoes

| Study No. Test Site Location Year Annex Pt | (ml/ha) | Active Timing Substance (g.g.s/ha) | No. of Applications (Timing of applications) | Sampling Timing |
|--|---------|---------------------------------------|---|---|
| BCS-0352 C519 2010 KIIA 6.3.2.7/01 | | A=14 DBFH 0 B=7 DBFH 0 C=0 DBFH | 2 (A and B) 3 (A, B and C) | 7 DAAB 10 DAAB 14 DAAB 21 DAAB 0 DAAC 1 DAAC 3 DAAC 7 DAAC 11 DAAC 14 DAAC |

Table 6.3.2.7-11 (cont'd): Trial details for residue trials with BYI 02960 200 SL in sweet potatoes

| Study No. | Crop | | | , Ç | | |
|--|--|--------------------|-----------------------------------|-----------------------------------|-------------------------------------|--|
| Test Site Location | Variety | R | ate | Application | No. of | Sampling |
| Year Annex Pt | Situation | Product (mL/ha) | Active Substance (g a.s/ha) | Timing | Applications Fiming of applications | Oliming |
| BCS-0358 C538 2011 KIIA 6.3.2.7/02 | Sweet potatoes Beauregard Field | 500 750 1000 | 100 150 200 | A=14 DBFH B=7 DBFH C=0 DBFH | 2 (A and B) 3 (A, B and C) 3 | 7 DAAB 21 BAAB 22 DAAB 35 DAAB 70 DAAC 7 DAAC 14 DAAC 21 DAAC 28 DAAC 35 BAAC |

DBFH = days before first harvest

DAAB = Days after application B of A and B

DAAC = Days after application C of $A_{\mathcal{P}}B$ and \mathcal{Q}

The analytical test method ATM-0048 "Determination of residues of EVI 02960 and its metabolites 6-chloronicotinic acid, diffurroethyl-amino-furatione and diflurroacetic acid in or or plant material by LC MS/MS" was used to analyse the fest samples.

Residues of BYI 92960 and the metabornes 6 CNA. DFEAF and DFA in rest samples were extracted with 20:80 water acetomitrile with 0.32 mL/b formic acid. The extract was filtered using a 0.45 µm syringe filter. For the analysis of DFA an aliquot was taken at this point and diluted with acetonitrile. For the analysis of BYI 92960, CNA and DFEAF an aliquot of the extract was reduced to its aqueous remainder another partitioned against ethal acetate on 2 Chem Elut column. The ethal acetate was then reduced to dryngs and the sample was reconstituted in acetonitrile.

Chromatography was performed by high performance liquid chromatography coupled to a triple quadrupole mass spectrometer using MRM for analytical etection. Quantitation was achieved with matrix matched analytical standards for all analytes and stable labelled internal standards for 6-CNA and DFEAF.

By this method the single analytes (BX102960 and its metabolites 6-CNA, DFEAF and DFA) were determined. The limit of quadritation (LOQ) of BYI 02960, DFEAF and 6-CNA was 0.01 mg/kg for each component and 0.02 mg/kg for DFA. The total residue of BYI02960 was calculated by summing up the values determined for parent compound BYI 02960, DFEAF and DFA, expressed as parent equivalent. Metabolity 6-CNA is not included in the proposed residue definition for risk assessment and was measured for additional information, only. The total LOQ for the three analytes of interest was 0.085 mg/kg (rounded to 0.09 mg/kg) when expressed as BYI 02960. Considerin all four analytes, the total LOQ expressed as BYI 02960 was 0.1061 mg/kg (rounded to 0.11 mg/kg).

A full description of the method can be found as an appendix to each of the study reports cited above.



The analytical test method was validated by analysing fortified samples concurrently with the analysis of the test samples. Mean concurrent recoveries for BYI02960 and its metabolites at fortification levels of 0.01 (0.02 DFA) and 1.0 mg/kg of each analyte are shown in Table 6.3.2.7-12 and 6.3.2.7-13 abelow.

Table 6.3.2.7-12: Recovery results for BYI02960 and its metabolites in study BCS-0352

| Analyte | Test Samples | Fortification Levels | Individual Revoveries | Becovery Means Wind RSD (Percent) |
|-----------|----------------|----------------------|--|--|
| Amaryte | rest Samples | (mg/kg) | (Percent) | and RSD (Percent) |
| BYI 02960 | Potatoes | 0.01 | 81,81 | 81 ± 0 × ~ |
| | | 1.0 | 81, 87, 88 | 80±5 Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø Ø |
| 6-CNA | | 0.01 | 78,79 | 093 ± 14 V |
| | | 0.01 | 78579 67 6 | 78.≇.0 △ . |
| DFEAF | | | | 84 ± 9 |
| | | 1.0 | 72,82,86 | ₹80± % |
| DFA | | | 88,91,10,7 111,1,1,7,112 | 9449 |
| | | | 111, 112, 112 | D12 ± 0 |
| BYI 02960 | Sweet potatoes | 0.01 | 78, 75, 75 | 75 ± 3 |
| | | 1.0" | 79,783 | 81 ^Q 3 |
| 6-CNA | | an 01 № | 86, 86, 110 | 94 ± 15 |
| | | 1.0 | 84 \$2, 71 | 79 ± 9 |
| DFEAF | | 60 1 | £27,91,90 × 27 | 92 ± 0 |
| | |).0 | 81,8270 | 80 ± 11 |
| DFA | | 0.02 | 85, 82, 94 ° S | 87 ± 7 |
| | | Po Co | 905, 196 ³ , 111 ₀ | 107 ± 3 |

Table 6.3.2.7-13: Recovery results for W102960 and its metabolites in study BCS-0358

| Analyte | Test Samples | Kørtification Gevels (mg/kg) | Individual Recoveries (Percent) | Recovery Means and RSD (Percent) |
|-----------|--------------|---------------------------------------|---------------------------------|-------------------------------------|
| BYI 02960 | Potatoes 2 | Ø.01 8 | 71, 78, 78, 90, 74 | 78 ± 9 |
| | | 1.0 | 78, 79, 82, 85, 92 | 83 ± 7 |
| 6-CNA | | Q,01 \$\tilde{\pi} \qquad \tilde{\pi} | 75, 89, 80, 107, 96 | 89 ± 14 |
| 4 | | 01.0 | 81, 74, 73, 98, 115 | 88 ± 20 |
| DFEAF | | 0.04 | 82, 83, 93, 83, 71, 76 | 81 ± 9 |
| | | 10 | 81, 84, 84, 81, 96, 92 | 87 ± 7 |
| DFA | | 0.02 | 77, 84, 114, 118, 115 | 101 ± 19 |
| DFA OF | | 1.0 | 105, 105, 98, 100, 97, 97 | 100 ± 3 |

Table 6.3.2.7-13 (cont'd): Recovery results for BYI02960 and its metabolites in study BCS-0358

| Analyte | Test Samples | Fortification Levels (mg/kg) | Individual Recoveries (Percent) | Recovery Meanso and RSD (Percent) |
|-----------|----------------|---------------------------------|------------------------------------|--------------------------------------|
| BYI 02960 | Sweet potatoes | 0.01 | 92, 91, 100 | 94 ± 5 |
| | | 1.0 | 88, 95, 93 | 92 ± 4 |
| 6-CNA | | 0.01 | 98, 117, 103 | 106 ± 9 |
| | | 1.0 | 78, 74, 70 | 74 ± 50° 00° 4 |
| DFEAF | | 0.01 | 89,393,96 | 93,44 |
| | | 1.0 | 89, 93, 89 | 99 ± 3 🔊 🗸 |
| DFA | | 0.02 | \$93, 85 | 89 ± 60 6 4 |
| | | 1.0 | 85, 90, 103°Q° ° ° | 93 £ 10 ° |

Findings

Residues determined for BYI02960 and its metabolites in potatoes and sweet obtatoes are given in Table 6.3.2.7-14 and Table 6.3.2.7-15 respectively.

Only data relating to the target rate of 150 g a.s./ha, and one result (6 for 8 DAAB) from the treatments receiving just two applications is presented here. Complete data including results following applications at 100 and 200 g a.i./ha can be found in the study report.

Results for BYI02960 and the three metabolities, 6-CNA, DEFAF and DFA, along with the total residue expressed as total BYI02960 parent equivalent are shown in the tables below. Since the proposed residue definition, excludes 6-CNA, the total residue excluding 6-CNA is also shown.

Table 6.3.2.7-10: Results of residue trial conducted in potators where BYI 02960 200 SL was applied three times at the target rate of 150g a.s./fa

| | Ö | | | Concent | rations (mg/ | kg) | |
|---|----------------|------------------------|----------------------|---------------|-----------------------|---|---|
| Study no. Trial no. Location Year Situation | DAOT (days) | Detected as HVI 02960 | Detected as 6-CNA | Detected as & | Detected as DFA | Total expressed as BYI 02960 Equivalent | Total expressed as BYI 02960 Equivalent (excluding 6-CNA) |
| BCS-0352 C516 | 7 DAAB | <0.00 | 7/n~U.U 1/ | ≈ 0.01 | < 0.02 | < 0.11 | < 0.09 |
| C516 | 0 DAAC | <0.04 | <0.00 |)°<0.01 | < 0.02 | < 0.11 | < 0.09 |
| T. A | 1 DAAC | 3 0.01 0 | < @ 01 | < 0.01 | < 0.02 | < 0.11 | < 0.09 |
| Tas 🆴 | 3 DAAC | ×<0.0} | 9.01 | < 0.01 | < 0.02 | < 0.11 | < 0.09 |
| 2010 Field | 7 DAAC | <0.61 | /<0.0 6 / | < 0.01 | < 0.02 | < 0.11 | < 0.09 |
| 1 iciu | JY DAA | 30 .01 💖 | <0.01 | < 0.01 | < 0.02 | < 0.11 | < 0.09 |
| | | €0.01 <u></u> | ≈ ©0.01 | < 0.01 | < 0.02 | < 0.11 | < 0.09 |
| BCS-03520 | 6 DAAB | <0.00 | < 0.01 | < 0.01 | < 0.02 | < 0.11 | < 0.09 |
| C517 | DAAC | \$0 01 | < 0.01 | < 0.01 | < 0.02 | < 0.11 | < 0.09 |
| | DI DAAC | ~ 0.01 | < 0.01 | < 0.01 | < 0.02 | < 0.11 | < 0.09 |
| WAS 2010 Field | 3 DAAC | <0.01 | < 0.01 | < 0.01 | < 0.02 | < 0.11 | < 0.09 |
| Field C | 7 DAAC | < 0.01 | < 0.01 | < 0.01 | 0.03 | < 0.11 | < 0.09 |
| l loid | 11 DAAC | < 0.01 | < 0.01 | < 0.01 | 0.02 | < 0.11 | < 0.09 |
| | 16 DAAC | < 0.01 | < 0.01 | < 0.01 | 0.05 | 0.20 | 0.16 |

Table 6.3.2.7- 14 (cont'd): Results of residue trials conducted in potatoes where BYI 02960 200 SL was applied three times at the target rate of 150 g a.s./ha

| | | | | Concent | rations (mg/ | kg) | |
|---|----------------|-----------------------------|---|-------------------------|------------------------|---|--|
| Study no. Trial no. Location Year Situation | DALT (days) | Detected as BYI 02960 | Detected as 6-CNA | Detected as DFEAF | Detected as DFA | Total expressed as BYI 02960 Equivalent | Optal expressed as BYI 02960 Equivalent (excluding |
| BCS-0352 | 8 DAAB | < 0.01 | < 0.01 | <0.01 | <0.02 | <0.11 | J<0.09 |
| C518 | 0 DAAC | < 0.01 | < 0.01 | © .01 | <9502 | <0.10 | × <0:99 0 |
| , Vic | 1 DAAC | < 0.01 | <0.01 | ⊘ <0.01 | <0.02 | <0Q1 0 | €0.09 Ø |
| 2010 | 3 DAAC | < 0.01 | <0.01 | <0.01 | 0.02 | ©0.11 ° | <0.00 |
| Field | 7 DAAC | < 0.01 | <0.01 | Ø .01 💢 | <0.92 | × <0.15 | < 0.09 |
| | 11 DAAC | < 0.01 | <0.01 | ~0.Q1© | Q0.02 4 | <0,11 O | ©0.09 J |
| | 14 DAAC | < 0.01 | <0.01 | <0.01 | ×<0.02 | <u></u> 20.11≾√ | <0.00 |
| BCS-0358 | 6 DAAB | <0.01 | ©0.01 | \$0.01 | ≤0 02 € | J <0.10 J | <0.09 |
| C539 | 0 DAAC | <0.01 | <0.00 | × <0.0 × | 0.02 | \$ 9 .11 \$ | £0.09 |
| | 7 DAAC | <0.01 | 49 .01 | <0001 | <0.00 | ©0.11 | № <0.09 |
| 2011 | 14 DAAC | <0.0H % | ×0.01 | ©0.01 L | S 02 | <0.0 | < 0.09 |
| Field | 21 DAAC | ₹ 6 .01 📞 | <0.0) | <0.01 | ₹ 0.02 % | √ 0.11 | < 0.09 |
| | 28 DAAC 🕏 | ©<0.01 [©] | 60 .01 | <0.01 | <0.902 | Ç 0.11 V | < 0.09 |
| | 35 DAAC | <0.00 k | 5 < 0.01 C | \$0.01 O | \$0 .02 | <0.0 | < 0.09 |
| BCS-0358 | 7 DAAB | 40 .01 | 0001 | × <0.60 | Q _{0.02} | ≈0 .11 | < 0.09 |
| C632 | 0 DA | \$<0.01 ⁰ | ©.01 | .≪ 0 001 € | 0,03 | © 0.11 | 0.09 |
| , Tas | 7 DOAC | <0:\frac{1}{2} & | 0.02 | ₹0.01 ° | Ø.04 🔊 | 0.15 | 0.11 |
| Field | DAAC | 3 0.01 O | 0.03 | J <0.00° | 0.05 ₀ | 0.20 | 0.15 |
| \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | 21 DAAC | <0.010 | △0.02 × | <0001 | 0,05 | 0.20 | 0.16 |
| | 28 DAAC ් | <0001 | 0.02 | 3 0.01 | 0.04 | 0.16 | 0.12 |
| | 35 DA 🍇 | °≈0.01 « | 0.01 | <0.01 | ≫ 0.04 | 0.15 | 0.13 |
| BCS-0358 | 0 DAAC | ~<0.0 J | \$9.01 \$\tilde{y}\$ <0.01\$\tilde{y}\$ | <001 | < 0.02 | < 0.11 | <0.09 |
| C541 | 6 DAAC | <0.001 |)°<0.01 | ₹ 0.01 ₹ | < 0.02 | < 0.11 | < 0.09 |
| , | JA DAAG | 0.01 | <0.01 | <0.01 | < 0.02 | < 0.11 | < 0.09 |
| 2011 | 23 DAAC | ~0.00° | 0.01 | 4 ,01 | <0.02 | < 0.11 | < 0.09 |
| Field O | | | | * | | | |

DALT days after last treatment

DAAB — Days After Application B of applications A and B

DAAC = Days After Application C of applications A B and C

Note

The above results might not match the aw data because of rounding adjustments.

All values for BYL 2960, 6-CNA and DFEAF below the LOQ of 0.01 mg/kg are expressed as <0.01 mg/kg.

All values for DOA below the LQQ of 0.02 mg/kg are expressed as <0.02 mg/kg.

All values for the BYI @2960 parent equivalent below the LOQ of 0.1061 mg/kg are expressed as <0.11 mg/kg.

All values to the BYI 02960 parent equivalent excluding 6-CNA below the LOQ of 0.088 mg/kg are expressed as <0.09 mg/kg.

Table 6.3.2.7-15: Results of residue trials conducted in sweet potatoes where BYI 02960 200 SL was applied three times at the target rate of 150 g a.s./ha

| | | | | Concen | trations (mg/ | (kg) | |
|---|----------------|-----------------------------|-------------------------|---|------------------|---|---|
| Study no. Trial no. Location Year Situation | DALT (days) | Detected as BYI 02960 | Detected as 6-CNA | Detected as DFEAF | Detected as DFA | Total expressed as BYI 02960 Equivalent | Optal expressed as BYI 02960 Fequivalent (excluding) |
| BCS-0352 | 7 DAAB | < 0.01 | 0.09 | <0.01 | 0.03 | 0.25, 0 | \$0.09 |
| C519 | 0 DAAC | < 0.01 | 0.05 | 20 .01 | 0.02 | 0.15 | \$\int_{0.09} \times \ti |
| | 1 DAAC | < 0.01 | 0.07 | ∂ 0.01 | 0.03 | 20 21 | 0.08 |
| 2010 | 3 DAAC | < 0.01 | 0.05 | <0.01 | 0.03 | @ 0.17 | €0.08 |
| Field | 7 DAAC | < 0.01 | 0.07 | 6 0.01 | 1 0.903 <i>a</i> | 0.2 | 0.11 |
| | 9 DAAC | < 0.01 | 0.07 | ~ 0.01 ~ 0.01 | 0.05 | 0.28 ⊙″ | 1 5 5 |
| | 14 DAAC | < 0.01 | Ø:07 ~ | <0.0,1 | 0.06 | 0.32 | 0.19 |
| BCS-0358 | 7 DAAB | 0.09 | 0.014 7 0.45 7 | Ø.01 | 9 93 × | | 0.0 |
| C538 | 0 DAAC | <0.01 | 0.10 | \$\frac{1}{2}\cdot 0.0 \right\r | ~~0.08~° | 0.40 | © .23 |
| > | 7 DAAC | <0.01% | B.11 B | <0091 | 0.90 | 0.400 | °>√ 0.20 |
| 2011 | 14 DAAC | Q. Ø | ©0.08 ° | 3 0.01 | 100 05 | r uan 🖔 | 0.16 |
| Field | 21 DAAC | ₹9 .01 🕵 | 0,000 | <0.01 | L, 0.07 | Ø0.33 | 0.22 |
| | 28 DAAC | ©<0.010 | 6 09 | < 0.01 | 0,13 | 0.54 | 0.38 |
| | 35 DAAC | <0.04 | 0.08 | Ø.01 O | &0.20 | , | 0.61 |

DALT = days after last treatment

DAAB = Days After Application B of applications A and B

DAAC = Days After pplication C of applications A, B and C

Note:

Note:

The above resoluts might not match the raw data because of rounding adjustments.

All values for BYI 02960, 6 CNA and DFEAF Gelow the LOQ of 0.01 mg/kg are expressed as <0.01 mg/kg.

All values for DFA below the LOQ of 0.02 mg/kg are expressed as <0.02 mg/kg.

All values for the BYI 00060 parent equipment below the LOQ of \$1061 ntg kg are expressed as <0.11 mg/kg. All values for the BY 102960 parent equivalent excluding 6-CNA below the LOQ of 0.088 mg/kg are expressed as <0.09 mg/kg.

Results from all trials in potato and sweet potato are sommarised in Table 6.3.2.7-16. This shows the highest residue (expressed as total BYV02960 parent equivalent for the sum of BYI02960, DFEAF and DFA, i.e. excluding 6-QNA) from east site and indicates the sampling time (days after last and DFA, i.e. excluding o-QNA) from each site application) when this occurred

Table 6.3.2.7-16: Summary of results of residue trials conducted in potatoes and sweet potatoes where BYI 02960 200 SL was applied three times at the target rate of 150 g a.s./ha

| Crop (proposed WHP) | Situation | Trial no. | Final sampling timing DALT | Sampling timing where highest residue recorded DALT | Maximum residue at or beyond proposed WHP* (mg/kg) |
|------------------------|-----------|--------------|----------------------------|--|---|
| Potato | Field | C516 | 14 | 7 | ≤0.09 |
| (7 days) | Field | C517 | 14 | 14 | 70.16** |
| | Field | C518 | 14 | 7 © | <0.09 |
| | Field | C539 | 35 | 7, \$ | <0.09 |
| | Field | C632 | 35 | QY L | 0.16 |
| | Field | C541 | 23 | 6 3 | <0.00 |
| Sweet potato | Field | C519 | 14 | | |
| (7 days) | Field | C538 | 35 | | 9.61 |

DALT = Days after last treatment

- * Maximum residue concentration expressed as You'al BY 102960 parent equivalent (BY102960, DFEAF and DFA i.e. excluding 6-CNA)
- ** Site C517 had product applied at late sene cence cather than during tuber formation, it was the case for all other sites

Conclusion

Six field trials were conducted to measure the magnitude of total BYL02960 residues in/on potato tubers following three foliar spray applications of BYV02960 200 SL. The total BYI 02960 residue data are shown in Table 6.3.25-17.

Table 6.3.2.7-17: Summary of Residue Data/for Total BY 02966 from Potato Tubers

| _ | | | 0, 6,0 | | tal Bari 029 | 960 Resid | lue Level | s (ppm) | |
|-----------------------|-----------|---------------------------------|----------|------------|--------------|---------------------------|---------------------|-------------------|-----------------------|
| Commodity | Plot Name | Fotal App Rå@? kg a.s./kå | E (di | n A | Max at PHI | Max after PHI | Median ³ | Mean ³ | Standard Deviation |
| Potato Tuber | TRTD | | 7.07 7.4 | 6 < < 0.09 | 0.11 | 0.16 (21) ⁴ | <0.09 | 0.093 | 0.008 |
| Sweet Potato Tuber | TRTD | 0.452 to 0.45 | 7 7 7 | 2 9.11 | 0.20 | 0.61 (35) ⁴ | | | |

- 1 TRAD = treated plot receiving three to ar spray application
- 2 HAFT = Highest Average Field Trial
- 3 calculated on the basis of residue values at the PH1
- 4 Sampling day howing highest residue

In five of the six decline trial BYI 02960 residues were below the LOQ in potato tubers at the PHI of 7 days, only one trial showed residues at the PHI (0.11 mg/kg). However, two trials showed maximum total residues after the PHI, both accounting for 0.16 mg/kg, either at day 14 or day 21. Additional sampling intervals in one trial (days 28 and 35) indicated that the residues plateaued after 21 days; both levels were lower than the one detected at day 21. Therefore it can be concluded that the total residue levels will not further increase with the time.



Total BYI 02960 residues in sweet potatoes were significantly higher and did not reach the maximum slightly after the PHI. Residues up to 0.61 mg/kg were detected at the last sampling event (35 day after the last application) indicating that the residue plateau was still not reached.

On the basis of the available residue data, it was concluded that the residue behaviour of BYI 02960 is different for potatoes and sweet potatoes. Whereas the potato results indicated that the residues plateaued at a maximum of approx. 0.16 mg/kg within 7 to 14 days, no plateau could to established for sweet potatoes.

Overall Conclusion - Potatoes

Supervised residue trials in potatoes were conducted in the US and in Australia to achieve a national registration in the NAFTA countries and in Australia.

The NAFTA countries support a use with two folian spray applications of BYL 2960 500 Slowith a total application rate of 410 g a.s./Na. Twenty-six trials were conducted according to the GAP to measure the magnitude of BYL 2960 residues in/on joitato tabers of epresentative test system for NAFTA Crop Group 1C; Tuberous and Coon Vegetables). The intended pre-harvest interval is 7 day.

Australia supports a use with three foliar spray applications of BYI 02960 200 St with a total application rate of 450 g a.s. Dia and a pre-harvest interval (withholding period) of also 7 days. Six trials were conducted in potatoes and typin sweet potatoes.

A summary of the use patterns tested and the corresponding residue levels is shown in Table 6.3.2.7-18.

Table 6.3.2.7-18: Summary of Residue Pata for Total BYI 0.2960 from Potatoes

| Formulation St. | Mighod St. of Color | PHI | No. Application | No. Trials | Total Residue of BYI 02960 (mg a.s./kg) at PHI | Peak residue (mg a.s./kg) | Day of peak residue |
|---|---------------------|-----|-----------------|------------|--|------------------------------|------------------------|
| NAFTA V V |) ^b | | 1 | ī | | | |
| Potato St. 2004 2 x 0.205 kg 38./ha Australia | Foliar spray | 7 | 2 | 26 | <0.07-0.12 | 0.13 | 21 |
| | | | | | | | |
| Potato | | | _ | 4 | <0.09-0.11 | 0.16 | 21 |
| Potato Sweet potato 3 x 9 50 kg a.s./ha | Foliar spray | 7 | 3 | 2 | 0.11-0.20 | 0.61 | 35 |

Total BYI 02960 residues in potato tubers were comparable in the <u>NAFTA</u> and the <u>Australian</u> trials with slightly higher residues in potato tubers harvested in Australia after applying the slightly higher

total application rate of 450 g a.s./ha. NAFTA and Australian decline trials suggest that the residues leveled off by the end of the sampling interval for potatoes.

Sweet potatoes showed generally higher residues than potatoes and did not reach a residue plateau around the PHI. Residues up to 0.61 mg/kg were detected at the distribution. around the PHI. Residues up to 0.61 mg/kg were detected at the last sampling event, i.e. 35 days after the last application. The limited number of residue trials does not allow further conclusions.

Thus the data cleary shows that the residue behaviour in potatoes and sweet potatoes is different. Potaoes show a conclusive residue behaviour which allows the calculation of a maximum residue value on the basis of the NAFTA and Australian results, whereas this is not the case for sweet potatoes.

Fruiting vegetables - solanace **IIA 6.3.2.8**

Residue data from NORTH AMERICA

Residue data from NORTH AMERICA (Crop Group 8)

BYI 02960 is to be registered in USA and Canada for use as a Johan of soil treatment in/ondruiting vegetables (Crop Group 8). The use patterns in North America are summarized in Table 6.3.2.8-1.

A total of thirty-three trials were conducted in frusting vegetables. The studies are described below.

Target Use Patterns for the Application of BW 02960 on Fracting Vegetables (Crop Table 6.3.2.8-1 Froup 89 in North America

| | | , (| | | et Rate/App[| içation | | | | Spray | Volume |
|------------------|---------------------|---------------------------------|-------|------------------|----------------------|---------------|-------------------|-----------------|-----------------|-------|-----------------|
| | | 2 | Form | ulated | Active Su Name/of | / N | | Target | | | |
| Appli- | | (*) (*) (*) (*) (*) | Produ | ct (FP) | Active Su | ıbstance | (a:\$) | <i>⋒</i> App. | | | |
| cation | Test | U of | e e | b 4 | Name/of | ⊕*tb | [™] kg ≰ | Interval | Target PHI | | |
| Type | Substance | Apps | mL/A | fl oz | a.š. | a.s./A | Va.s.∕ha | (Days) | (Days) | GPA | LPHA |
| Foliar | BYI 02960 | () | 1025 | 14.0 | BY1 02900 | (n | 0.205 | NA 1 | NA ¹ | 10-30 | 94-282 |
| | 200 SL | 2 4 | 1025 | ¥14.0° | BYI \$2960 | 6 .183 | 0.205 | 7 | 1 | 10-30 | 94-282 |
| Soil | BYI 02960 2008sL | | 2030 | 28 .0 | B 7 0296 | 0 | 0.410 | NA ¹ | 45 | NA 1 | NA ¹ |
| 1 NA = 1 | Vo≰applicable | * | | | | W W | | | | | |
| GPA = gal | loons per acre | , Ø | | \mathbb{Q}^{v} | | I | | | | | |
| $LPHA = \hat{l}$ | ter per hectare | | 4 | | | | | | | | |
| | lors per acre | J' | | | | | | | | | |

| Report: | KIIA 6.3.2,8/01; and K. 2012 |
|-------------|--|
| Title: | B-XI 0296 200 St - Magnitude of the Residue in/on Fruiting Vegetables |
| Title: | (Crop Group 8) |
| Report No | RARWY022 dated June 22, 2012 |
| Report No | M433126-01-1 |
| Guidelines: | S: EPA Residue Chemistry Test Guidelines OPPTS 860.1500, Crop Field Trials |
| | Canada: PMRA DACO 7.4.1, Supervised Residue Trial Study |
| Ö | PMRA DACO 7.4.2, Residue Decline |
| | OECD: Guidelines for the Testing of Chemicals, 509, Crop Field Trial, |
| | Adopted Sept. 7, 2009. |
| GLP | Yes |



Thirty-three field trials were conducted to measure the magnitude of BYI 02960 residues in/on tomato (19 trials), bell pepper (10 trials) and chili pepper (4 trials) as representative test system for the NAFTA Crop Group 8; Fruiting Vegetables. The GAPs comprise either two broadcast foliar spray applications or one soil drench application of BYI 02960 200 SL. The number and location of trials conform to the guidance given by the EPA with exceptions as noted in Tables 6.3.2.8-2, 6.3.28-3, and 6.3.2.8-4. BYI 02960 200 SL is a soluble concentrate formulation containing 2000 BYI 02960/L.

Table 6.3.2.8-2: Trial Numbers and Geographical ocations for BYI 02960 in on Tomato

| NAFTA Growing Region | Sybmitt@l'a | Requested O |
|---|------------------|-------------|
| | Sypmitted . | Requested |
| 1A 3 6 6 | | |
| 2 | | |
| 3 | | |
| 4 | | |
| NAFTA Growing Region 1 1A 2 3 4 5 5 5 5 7 7 7 7 7 10 10 11 12 10 11 11 11 11 11 11 11 11 11 11 11 11 | | |
| 5AV & ST & A | | 0 |
| SB O S S | | |
| 2 65 0 0 | | 7 |
| | | |
| O 7AZY ZY ZY | | |
| 53B 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 | | |
| | | |
| | _~ 0 7 | 7 |
| | A " | |
| | , | |
| 5 | | |
| 5AV 65B 6 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 | | |
| Total Control of the control of the | 19 | 19 |

a Eight of the 19 trials were decline trials



Table 6.3.2.8-3: Trial Numbers and Geographical Locations for BYI 02960 in/on Bell Pepper

| 8 1 | | 11 |
|---|------------------------|-------------|
| NAFTA Growing Region | Submitted ^a | Requested o |
| 1 | | Kequested |
| 1A | | |
| 2 | 1 | 1 " 8 " " |
| 3 | 1 | |
| | 1 | |
| 5 | (k)) * | |
| 5 1 | | |
| 5B | | |
| 6 | | |
| 7 | | |
| 7A & & & & | | |
| 5B 6 7 7A 8 9 4 4 5 6 7 7 8 7 7 8 7 8 7 8 7 8 7 8 9 8 8 9 8 8 9 8 8 9 8 8 9 8 8 9 8 8 9 8 8 9 8 8 9 8 8 9 8 8 9 8 8 9 8 8 9 8 8 9 8 8 8 9 8 8 8 9 8 8 8 9 8 8 8 9 8 8 8 9 8 8 8 8 9 8 | | |
| 9 9 0 0 | | |
| 100 | \$ 6°2 6 | 2 |
| | | Ž. |
| | | |
| | | 7 |
| 5 014 29 29 29 | \$ 10 | |
| Total | 10 | 10 |
| | | |

a Eight of the ten trials were decline trials.

Table 6.3.2.8-4: Trial Numbers and Geographical Locations for BYI 02960 in/on Non-Bell (Chili) Pepper

| NAFTA Growing Region | Submitted ^a | Requested |
|---|------------------------|-----------|
| 1 | 4 | Requested |
| 1A | ő | |
| 2 | | 8 8 |
| 3 | | |
| Δ | | |
| 5 5A | Q1 6° 6 | |
| 5A | | |
| 5B | | ~ 4 |
| 6 4 2 | | |
| 7 | | |
| 5A 5B 6 7 7A 8 | | |
| | | |
| 9,00 ,00 ,00 | | S & |
| | | |
| 711 A 7 A A | | \$ \$ |
| 11 | Y O' & Y | |
| 13 N N N | | |
| | 40 | |
| Total Control of the | 40 | 3 |

a Two of the four trials were decline trials

Material and Methods

Two different use patterns using the same total application rate of BYI 02960 were tested: either two foliar applications (TRTDI plots) or a single soil drength (TRTDS plots).

For the TRTDF plots individual application rates ranged from 0.176 to 0.189 lb BYL 02960/A/application 0.197 to 0.212 kg BYL 02960/ha/application). Seasonal application rates ranged from 0.356 to 0.3% lb BYI 02960/A (0.399 to 0.422 kg BYI 02960/ha). All applications were made at growth stages ranging from BBCH 2 to 89 (BBCH 72: 2nd fruit cluster: first fruit has reached typical size: BBCH 89: fully ripe: fruits have typical fully ripe color) and the interval between the applications ranged from 5 to 7 days.

For the TRIOS place, application rates ranged from 0.351 to 0.374 lb BYI 02960/A/application (0.394 to 0.419 kg BYI 02960/ha/application). All applications were made at growth stages ranging from BBCH 29 to 86 (BBCH 29: 9 or more apical primary side shoots visible; BBCH 86: 60% of fruits show typical fully ripe color).

All applications were made using ground-based equipment. Each trial used NIS (0.2%), MSO (0.25%), or COC (1.0%) as an adjuvant for the application of the test susbstance.

Trial Site conditions, including soil characteristics are summarized in Table 6.3.2.8-5. Study use patterns are summarized in Table 6.3.2.8-6.

Table 6.3.2.8-5: Trial Site Conditions for BYI 02960 in/on Fruiting Vegetables

| | | Soil | Charactei | risticsa | | Meteorolo | gical Data |
|-------------------------|------------------------------|------------------|---------------------|----------------------|----------------|----------------------|---------------|
| | | | | | CEC | Total | |
| Study Location | | | | | (meq/100g | Rainfall | Temp, |
| (City, State) | Trial Number | Type 🖉 | OM (%) | pH 6.6 | soil) | (in) | Range (F) |
| NY | RV098-11HA | Silt Loan | 2.8 | 6.6 | \$ 5.6Q | 2 2.00 | 55 -85 |
| GA | RV099-11HA | Sandy Clay | 。1.2 ⑦ | 6.5% | <u> </u> | 5.07 | 70 -93 |
| FL | RV100-11HA | Sand 0 | 1.3 | 5 (1 | 3 1% \$ | 5.92 | 49-91 |
| , FL | RV101-11HA | Sand S | S .8 4 | 6 .2 | 3 | ₫.00 Q | 63.492° |
| , IA | RV102-11HA | Silty Clay Loam | 2.8 | 6.6 | , 108 s | ر 5.66 ^{چې} | 50 -92 |
| | RV103-11HA | V koam J | 2.4 | | ×10.3 \$ | 7,09 | 52-86 |
| , Manitoba | RV104-11H4O | Sand S | \$.5 | ®8.4 | <u></u> 22.3€ | \$.23 _@ | 45-81 |
| IL | RV105-1140A | "Silt Loam 🦠 | 2.3 | 5.80 | 7 10.7 | 12.00 | 64-92 |
| KS | RV106-@HA | Silty Clay Loads | 3. W | 57 | 078.4 g | 4,49 | 68-96 |
| , WI | RV107-11HA | SQt Loam | 2.7 | ,©5.3 _{\$2} | $Q 6_{R_0}$ | 9.06 | 61-88 |
| IL | RV∌08-11ĐÃ | Cione Silt@oam | 3.1 | 7.30 | 12/6 | 3 13.20 | 45-93 |
| , | ŔŴ109 ₂1 1DA | Loam J | 3.5 | <u>7.3</u> | √11 × | 12.34 | 51-82 |
| , CA | RV110-11DA | Loam | ×3 (| ∑6.8 g | √ 19 Av | 0.00 | 59-95 |
| , CA | RV111-116 Å | Coamy Sand | ॐ 0.55@ | 6.3 | 4.9 | 0.03 | 59-96 |
| , CA | √EV112-ÎĬĤA | Sandy Loam | 15 | | ×34.5 | 0.05 | 52-94 |
| , CA | RV113-11HA | Sandy Loain | 3 0.8 | 7.6 | 6.8 | 0.28 | 49-92 |
| , CA | RV¥14-1100A | Sandy Loam | > 0.73 | 5. Z | 8.9 | 2.07 | 58-96 |
| , CAV | XV115 YDA | Loamy Sand | Q | ~J.3 | 7.3 | 1.05 | 54-94 |
| , ŠŠ | RV116011DA | Clay O | 2 .6 % | [©] 6.3 | 25.2 | 1.21 | 57-95 |
| , GA | R V ¥17-11 © A | Same | ¥ 0.93 [△] | 5.9 | 4.1 | 7.86 | 47-85 |
| FL 👸 | AV118 THA | Sand S | JØ | 5.1 | < 1% | 5.92 | 49-91 |
| , NEO | RV169-11DA | Solt Loas | ©2.3 | 6.9 | 11 | 5.89 | 53-90 |
| | RX 20-110A | Silt Loam | ₹ 2.3 | 5.8 | 10.7 | 12.00 | 64-92 |
| <u></u> | RV121 THA | Lyam 🗸 | 3.3 | 7.3 | 11 | 5.54 | 57-82 |
| , WI | RV122-11D4 | Sjît Loas | 2.7 | 5.3 | 6 | 8.90 | 51-88 |
| , Manitoba [*] | RX 23-11 9A | Sand | 3.5 | 8.4 | 22.3 | 4.43 | 54-81 |
| , TX ⊘ | RV124-41DA | Clay | 2 | 8 | 40.4 | 4.63 | 58-104 |
| , CA 🗸 🛕 | `RV]&-11DA | Loamy Sand | 0.83 | 7.3 | 7.3 | 1.05 | 54-94 |
| , CAS | RX 26-11DA | Loamy Sand | 0.55 | 6.3 | 4.9 | 0.03 | 59-96 |
| ØA Ø | ®V127₽ÎDA | Silty Clay Loam | 2.8 | 6.6 | 17.8 | 5.66 | 50-92 |
| , TX | , RV198-11HA | Sandy Loam | 0.5 | 8.1 | 16.3 | 3.08 | 48-99 |
| , ID | R₩129-11HA | Sandy loam | 2.8 | 7.3 | 20.1 | 0.31 | 51-91 |
| , ID & & | RV130-11DA | Loamy Sand | 0.8 | 7.6 | 6.8 | 0.28 | 49-92 |

Abbreviations used: %OM = percent organic matter; CEC = cation exchange capacity

Data is for the interval of the month of first application through the month of last sampling. Meteorological data were obtained from nearby government weather stations.



Table 6.3.2.8-6: Study Use Pattern for BYI 02960 200 SL in/on Fruiting Vegetables

| | 'n, | | | | Annli | ication | 1 | | | 0 |
|----------------------|--|-------------------------------|-----------|-----------------|----------------------------|---------------------------------|--|----------------------------|------------------|--|
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Method | Timing/Growth Stage (BBCH) | Spray Dume GPA (L/ha) | Rate Iba.s./A (kg & S./ha) | Retreatment Interval (days | Total Bars./A | Combined Mix-Adjuvants 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 |
| RV098-11HA | Region 1 2011 | BYI 02960 200 SL | TRTDF | Foliar spary | BBCH 84 | 234) (234) (235) (234) | (0.205) (0.205) (483) (0.205) | | 0.366 (0.410) | Dyne-Amic Dyne-Amic 0.2% v/v |
| RV098-11HA | Region 1 2011 | SO | | dren& | BBCFD | NAS | 0.351 (0.416) | NAO D | 0.371 (0.476) | Dyne-Amic @ 0.2% v/v |
| RV099-11HA | Region 22011 | | | spræy | BBCH BBCH | 20 (*88) (*200) | 0.484 (0,206) 3 (0,206) 3 (0,206) | 7 | 0.368 (0.413) | MSO @ 0.25% v/v MSO @ 0.25% v/v |
| RV099-11H | | SI∜ | TRTDS | Soil drengh | BBCH | NA O | 0.364 (0.408) | NAª | 0.364 (0.408) | MSO @ 0.25% v/v |
| RV100-11HA | FL Region 22011 | ØYI 92960 200 S₩ | TRTDE | Foliar | BBCH | | 0.185 (0.207) | NAª | 0.366 (0.410) | COC @ 1% v/v |
| | | Ž . | | .~0~ | BBCH 79 | 29 (272) | 0.181 (0.203) | 7 | | COC @ 1% v/v |
| RV106-11HA | | BYOT 03960 200 SI | | Soil drench | BBCH 56 | NAª | 0.366 (0.410) | NAª | 0.366 (0.410) | COC 30ml to total mixture |
| RV101-11HA | , pe | &YI 02960 200 SL | TOT | Foliar spray | BBCH 77 | 30 (280) | 0.181 (0.203) | NAª | 0.361 (0.404) | DyneAmic 0.2% v/v |
| | ~ | | | | BBCH 81 | 30 (277) | 0.179 (0.201) | 7 | | DyneAmic 0.2% v/v |



Table 6.3.2.8-6 (cont'd): Study Use Pattern for BYI 02960 200 SL in/on Fruiting Vegetables

| | <u> </u> | | | | | | I/OII I I GI | | | | 1 |
|----------------------|---|------------------------------------|-----------|--------------------|----------------------------|-----------------------|-----------------------------|-----------------------------|-------------------|-------------------------------|---|
| | gion | | | I | Appli | ication | 1 | 1 | 1 | <u></u> | 8 |
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Medigod | Timing/Growth Stage (BBCH) | Spray Dume GPA (L/ha) | Rate Ib a.s./A (kg &: 5/ha) | Retreatment Interval (days) | Total Rate Bas./A | Cank Mix Adjuvanish | |
| RV101-11HA | , FL | BYI | TRTDS | Soid Soid | BRCH Ø3 | MoA ^a | 0.35 9 | NØrå | 0.259 (0.403) | DyneAmic | |
| | Region 3 2011 | 02960 200 SL | | | | | (0.403) | | | Ø.2% | |
| RV102-11HA | , IA Region 5 2011 | BYI (| YRTINE | Folkar | BBCH 73 | @¥5 ¥1.41) | \$4 00.206 | A a | 0.868 | Destiny HC (MSO), | |
| | Region 5 2011 | 02966 | | Folkar spray | | (141) L | 00.200 | | J. 413) | 0.25% (v/v) | |
| | ~ 4 | SL « | | | BRCH | | ر (184 م | \$\int_{6}^{\infty} | | Destiny HC | |
| | | | | | BBCH 2 | (188) | | | | (MSO), 0.25% (v/v) | |
| RV102-11HA | Region 5 2011 | BYI 02960 2 0 0 SL | TRTDS | Scotty disprich | | NA ^a | ©0.364 ©0.408)∫ | N ^a | 0.364 (0.408) | Destiny HC (MSO), 0.25% (v/v) | |
| RV103-11HA | Roegion \$ 2011 | BYI 02960 290 | TREDOF | Fediar Spray | BBCH 84 O | (196) (196) | 0.179 (0.200) | NAª | 0.365 (0.409) | Hastens COC, 1% v/v | |
| | | | | | BBCH 85 | ©** 22 (205) | 0.186 (0.209) | 5 | | Hastens COC, 1% v/v | |
| RV103-11HA | Region 5 | BYIC 02960 2000 SSL | TRTES | Sort drænch | ₽ \$\$ČH 69 | NAª | 0.366 (0.410) | NAª | 0.366 (0.410) | Hastens COC, 1% v/v | |
| RV104-ÎTHA | Manifeba Region | BYI 02960 200 | TRIDE | F@lar Spray | BBCH 81 | 11 (980) | 0.180 (0.202) | NAª | 0.363 (0.407) | Agral 90 at 0.2% v/v | |
| | | y SL | | | BBCH 82 | 11 (100) | 0.183 (0.205) | 6 | | Agral 90 at 0.2% v/v | |
| RV104-14TA | Sanitoba Region | BYI 02960 200 SL | TRTDS | Soil drench | BBCH 51-60 | NAª | 0.366 (0.410) | NAª | 0.366 (0.410) | Agral 90 at 0.2% v/v | |



Table 6.3.2.8-6 (cont'd): Study Use Pattern for BYI 02960 200 SL in/on Fruiting Vegetables

| | ion, | | | | Appli | ication | <u> </u> | | | a,° |
|----------------------|--|--|-----------|------------------|----------------------------|--------------------------------|--|-----------------------------|---|--|
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | McHood | Timing/Growth Stage (BBCH) | Spray Dume GPA (L/ha) | Rate lb a.s./A (kg & ha) | Retreatment Interval (days) | Total Bate 16 % A. A. K. A. K. A. K. A. K. A. A. A. A. A. A. A. A. A. A. A. A. A. | Cank Mix Adjuvants 22 Chillip |
| RV105-11DA | IL Region 5 2011 | BYI 02960 200 SL | TRTDF | Foliar | BRCH ENCH BRCH | \$\frac{1}{4}\$ | 0.209) 0.487 0.209) | NOT | | MSO MSO |
| RV105-11DA | IL Region 5 2011 | 1 200 SD | | Soil C drence | BBCFD | NAS | 0.366 (0.410) | NAO | 0.366 (0 \$10) | MSO |
| RV106-11HA | KS Region 2011 | | | spray | BBCH BBCH | 15 (143) (147) | 0.\f\8\\\(0.202\)\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | 6 | 0.367 (0.411) | COC (1.0% v/v) COC (1.0% v/v) |
| RV106-11H | KS Region 5 2011 | B\$\text{\$\ext{\$\text{\$\exiting{\$\text{\$\exititt{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\}}\$}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}} | TRTDS | Soil drengh | BBCH | NATO | 0.365 (0.409) | NAª | 0.365 (0.409) | COC (1.0% v/v) |
| RV107-11HA | Region 5 2011 | ® YI 92960 200 SN√ | TRIDE, | Foliar spray | BBCH BBCH | | 0.183 (0.205) | NA ^a | 0.366 (0.410) | NIS @ 0.2% v/v |
| RV107-11HA | Region 5 2011 | | | Soil drench | 89 BBCH 61 | 21 (196) NA ^a | 0.183 (0.205) 0.367 (0.411) | 7 NA ^a | 0.367 (0.411) | NIS @ 0.2% v/v NIS @ 0.2% v/v |
| RV108-11D | Region 5 2011 | BYI 02 960 | TRIDF | Foliar spray | BBCH 82 | 26 (244) | 0.182 (0.204) | NAª | 0.367 (0.411) | MSO 0.25 % v/v |
| | | | | | BBCH 83 | 27 (249) | 0.185 (0.207) | 7 | | MSO 0.25 % v/v |



Table 6.3.2.8-6 (cont'd): Study Use Pattern for BYI 02960 200 SL in/on Fruiting Vegetables

| 1 aute 0.3.2.6- | | | | | 02900 200 | | | | | |
|----------------------|--|----------------------------------|-----------|-----------------|----------------------------|-----------------------|-----------------------------|-----------------------------|-----------------------------------|---|
| | gion | | | | Appli | cation | 1 | I | | <u></u> |
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Method | Timing/Growth Stage (BBCH) | Spray Dume GPA (L/ha) | Rate lb a.s./A (kg &: y/ha) | Retreatment Interval (days) | Totad Rate Bark/A (kg a.s./ha) | Carlo |
| RV108-11DA | IL Region 5 2011 | BYI 02960 200 SL | TRTDS | Soil dreach | BRCH | MA ^a | 0.566 (0.410) | NØX | 0.366 (0.410) | MSO |
| RV109-11DA | Region 5 2011 | BYI (02966) 200 200 ØSL | PRTISE OF | Fokor spray | | 76 (146) | 9989 30.212) 90.212) | A ^a | 0 \$65 (\$.409) | Assist (COC) @ 1% v/v |
| RV109-11DA | \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | | ØTRTD® | Soot | BBCH 79 | Ù | (0.197) | | 0.366 | (COC) @ 1% v/v |
| KV109-11DA | Region 9 | BYI 02960 200 SL | | drench | \$\frac{29}{5}\tag{9} | Aa O | ⊙ 0.410){ | | (0.410) | Assist (COC) @ 1% v/v |
| RV110-11DA | Region 10 204 | BYI 02960 290 SI | TRIM | Fediar Spray | BBCH 2 88 O | § 20 | 0.183 (0.205) | NAª | 0.369 (0.413) | R-11 / 0.2 % v/v |
| | \$. 4 | | | | BBCH > 89 | ©** */ 20 (187) | 0.185 (0.208) | 7 | | R-11 / 0.2 % v/v |
| RV110-11DA | Region 00 201 | ŞL | R. | | | NAª | (0.410) | NAª | (0.410) | R-11 / 0.2 % v/v |
| RV111-149A | Region 70 20 A | DBYI 02969 200 CSL | TRTDE | Foliar Spray | BBCH 87 | 20 (187) | 0.183 (0.205) | NAª | 0.365 (0.410) | Monterey MSO @ 0.25% v/v |
| | | | | g :: | BBCH 85 | 20 (186) | 0.182 (0.204) | 7 | 0.2 | Monterey MSO |
| RV111-11PA | Pregion 10 2011 | 9YI 02960 200 SL | TRTDS | Soil drench | BBCH 71 | NAª | 0.357 (0.400) | NAª | 0.357 (0.400) | Monterey MSO @ 0.25% v/v |



Table 6.3.2.8-6 (cont'd): Study Use Pattern for BYI 02960 200 SL in/on Fruiting Vegetables

| | țion, | | | | Appli | ication | l | | | _@ ^ |
|----------------------|--|---------------------------------------|-----------|------------------|----------------------------|--------------------------------|--|-----------------------------|-------------------------------|--|
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Medigod | Timing/Growth Stage (BBCH) | Spray Dume GPA (L/ha) | Rate Ib a. s./A (kg & ha) | Retreathent Interval (days) | Total Bark. A (kg a.s./ha) | Tank Mik-Adjuvants 27 |
| RV112-11HA | CA Region 10 2011 | BYI 02960 200 SL | TRTDF | Foliar spory | BRCH 89 BRCH 89 | (233) | (0.207) (0.207) (1.205) (0.205) | Nora | 0.368 | COC @ COC @ COC @ COC @ COC W |
| RV112-11HA | CA Region 10 2011 | BYI ©2960° 200 S© | TRIDS | Soil C drenco | BBCFD | NAS | 0.366 (0.410) | NAO D | 0.366 (0 £10) | COC @ 1.0% v/v |
| RV113-11HA | Region (V)2011 | | | Folian spread | | \ \d | 0.487 (0.210) \$ (0.210) \$ (0.202) | 6 | 0.368 (0.413) | NIS (Pro 90) @ 0.20% v/v NIS (Pro 90) @ 0.20% v/v |
| RV113-1111 | Region 19 2011 | 2010) 1 | | Soil dreach | BBQM \$86 | NAV O | 0.367 (0.411) | NAª | 0.367 (0.411) | NIS (Pro 90) @ 0.20% v/v |
| RV114-11DA | Region 0 201 | ©BYI 029,600 2007 SPL | TRTDF | Foliar spory | BBCH Ø | 20 (192) | | NAª | 0.365 (0.409) | MSO at 0.25% v/v |
| RV/M-11DA | | N N N N N N N N N N N N N N N N N N N | U' J | Soil | BBCH 82 BBCH | 21 (193) NA ^a | 0.185 (0.207) 0.367 | 7 NA ^a | 0.367 | MSO at 0.25% v/v MSO at |
| | | 02960 200 SL | | drench | 54 | | (0.411) | | (0.411) | 0.25% v/v |
| RV115-11 p | A Region 10 2011 | 3YI 02960 200 SL | TRTDF | Foliar spray | BBCH 82 | 26 (239) | 0.188 (0.210) | NAª | 0.371 (0.416) | COC 1.0% v/v |
| | The state of the s | | | | BBCH 89 | 26 (239) | 0.183 (0.206) | 7 | | COC 1.0% v/v |



Table 6.3.2.8-6 (cont'd): Study Use Pattern for BYI 02960 200 SL in/on Fruiting Vegetables

| | on, | | | | Appli | ication | <u> </u> | | | 0 |
|----------------------|--|------------------------------------|-----------|-----------------|----------------------------|----------------------------|----------------------------------|-----------------------------|--------------------------|--|
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | McHapd | Timing/Growth Stage (BBCH) | Spray Dume GPA (L/ha) | Rate Ib a.s./A (kg &: */ha) | Retreatment Interval (days) | Total Bate Bass. A | Cank Mix Adjuvants 2/2 Call |
| RV115-11DA | , CA Region 10 2011 | BYI 02960 200 SL | TRTDS | Soil dreach | | | (0.394) | NX | | CÓC 1.0% |
| RV116-11DA | , CA Region 10 2011 | BYI (02966) 2007 28L | | Foliar spray | BBCH 889 | 20 (187) 20 (187) | 9783 30.205 9.184 0.206 | 7 2 | 0 26 7 (0.412) | R-11 / 0.2% v/v R-11 / 0.2% v/v |
| RV116-11DA | Region to 2011 | ABYI 02960 2007 SP | | Soil drengh | BBCH BBCH | NA ^a | 0.366 (0,410) 0 | NO Y | 0.366 (0.410) | R-11 / 0.2% v/v |
| RV117-11DA | GA Region 2011 | BYI & 02960 200 SL | TRTDF | Foliar spray | BBĈH | \$186) \$186) | 0.182 0.182 | NAª | 0.365 (0.409) | MSO @ 0.25% v/v |
| | | | | | | ()21 (197) | (0.204) | 6 | | MSO @ 0.25% v/v |
| RV117-11DA | , GA Region 2011 FL | ® ¥ I 92960 200 SN | | Soil Grench | BBCH | NAª | 0.366 (0.410) | NAª | 0.366 (0.410) | MSO @ 0.25% v/v |
| RV118-1147 | FL Region 2011 | 92960 2007 SJ | JRTDE, | Foliar spray | BBCH 74 | 20 (185) | 0.181 (0.203) | NAª | 0.362 (0.405) | NIS @0.2% v/v |
| | | ¥ % | | y | BBCH 89 | 20 (183) | 0.180 (0.202) | 7 | | NIS @0.2% v/v |
| RV118-11H | Region 3 2011 | BYI 02960 200 SL | TETOS | Soil drench | BBCH 51 | NAª | 0.366 (0.410) | NAª | 0.366 (0.410) | NIS at 6 ml based on 3000 ml |



Table 6.3.2.8-6 (cont'd): Study Use Pattern for BYI 02960 200 SL in/on Fruiting Vegetables

| | Application Geographic Control of the Control of th | | | | | | | an ° | | |
|----------------------|--|---|-----------|------------------|----------------------------|-------------------------------|---------------------------------------|-----------------------------|--------------------------------|---|
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Method | Timing/Growth Stage (BBCH) | Spray Dume GPA (L/ha) | Rate Ib a.s./A (kg & ha) | Retreatment Interval (days) | Total Bare Bar.A. (kg a.S./ha) | Tank Mix-Adjuvants 21 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 |
| RV119-11DA | , NE Region 5 2011 | BYI 02960 200 SL | TRTDF | Foliar spray | BRCH 87 BRCH 89 | (34) (34) (35) (137) | (0.205) (0.205) (482 (0.204) | Næra V | | ACOC COC |
| RV119-11DA | , NE Region 5 2011 | BYÎ 62960 200 SO | TRIDS | Soil C drence | BBCFD | NAS | 0.366 (0.410) | NAO D | 0.366 (0 £10) | COC |
| RV120-11DA | | ÆYI Ø2960 200 \$00 \$00 \$00 \$00 \$00 \$00 \$00 | | Foliago sproy | BBCH BBCH 574 | 26 (239) (250) | 0.188 (0.211) 0.183 (0.205) | 5 | 0.371 (0.416) | NIS 0.2% v/v |
| RV120-11D | il Region 5 2011 | B≱I \$2960 200 ° S ¥ √ | TRTDS | Šoil drengh | BBCH 5 | NA O | 0.366 (0.410) | NAª | 0.366 (0.410) | NIS |
| RV121-11HA | Region 5. | 3 Y I 2 960 200 SN | TRIDE! | Foliar spraty | BBCH BBCH | 15 (144) | 0.186 (0.209) | NA ^a | 0.366 (0.410) | Hasten (MSO) @0.25% v/v Hasten |
| RV1237-11HA | , Q (| 2, | U V | Soil | ВВСН | (148) NA ^a | 0.366 | NA ^a | | (MSO) @0.25% v/v Hasten |
| PV122 11DA | Region 5-2011 | 02960 200 SL | TRTDF | drench Foliar | 51 BBCH | 21 | 0.184 | NAª | 0.367 | (MSO) @0.25% v/v |
| KV122-11PA | WI Segion 5 2011 | 200 SL | IKIDI | spray | 89 89 | (192) | (0.206) | INA" | (0.411) | 26.38 mL |
| | T. | | | | BBCH 89 | 22 (207) | 0.183 (0.205) | 7 | | COC 28.44 mL |



Table 6.3.2.8-6 (cont'd): Study Use Pattern for BYI 02960 200 SL in/on Fruiting Vegetables

| | · | · · · · | rauem i | | | | | ·····8 | | |
|----------------------|--|---|-----------|-----------------|----------------------------|--|---------------------------------|--|---------------------------|--|
| | gion, | | | Τ | Appli | cation | l | 1 | Т | w° |
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Meteod | Timing/Growth Stage (BBCH) | Spray Colume GPA (L/ha) | Rate Ib a.s./A (kg &: */ha) | Retreatinent Interval (days) | Total Rate Bas./A | Cank Mix Aylawanis 27 |
| RV122-11DA | , WI Region 5 2011 | BYI 02960 200 SL | TRTDS | Soid dreach | | | (0.411) | NØXª | 0.367 (0.411) | COC 431 ml |
| RV123-11DA | Manitoba Region 5 2011 | 206√ Øsl « | TRTISE S | Folkor spray | BBCH BBCH 89 | 30 2(98) 3(98) 3(97) 4(97) | 979 60.200 9.177 0.198 | | 0 \$6 (\$.399) (\$. | Agral 90 at 0.2% v/v Agral 90 at 0.2% v/v |
| RV123-11DA | Manitob Region 5 2011 | \$\frac{0}{28YI}\$\frac{3}{02960}\$\frac{2960}{290}\$ | TRTDS | Soil dresch | BB(F1 54,60 | NA ^a | 0.366 (0.410) | NO NO NO NO NO NO NO NO NO NO NO NO NO N | 0.366 (0.410) | Agral 90 at 0.2% v/v |
| RV124-11DA | Region 2011 | BYI © 0296© 200 SL | TRTDF | Foliar spray | BB€H | (170) | Q 83 (0.205) | NAª | 0.364 (0.408) | MSO @ 0.25% v/v |
| | | | | | BBCH 84 △ | ©l [®] 6 (154) | 0.182 (0.204) | 5 | | MSO@ 0.25% v/v |
| RV124-11DA | , TX Region 62011 | B ŶI 92960 200 Sty | TRTDS. | Soil Grenoth | BBCH | NAª | 0.365 (0.409) | NAª | 0.365 (0.409) | MSO @ 0.25% v/v |
| RV125-1115 | CA Region V 2011 | 93YI 02960 2007 | RTDE | Foliar spray | BBCH 83 | 26 (240) | | NAª | 0.373 (0.418) | COC 1% v/v |
| | | | | | BBCH 89 | 25 (238) | 0.185 (0.207) | 7 | | COC 1% v/v |
| RV125-11D | Region 102011 | 2960 200 SL | TRIDS | Soil drench | BBCH 68 | NAª | 0.351 (0.394) | NAª | 0.351 (0.394) | COC 1% v/v |



Table 6.3.2.8-6 (cont'd): Study Use Pattern for BYI 02960 200 SL in/on Fruiting Vegetables

| | on, | | | | Appli | ication | 1 | | | O n |
|----------------------|--|--|-----------|-----------------|----------------------------|----------------------------|---|-----------------------------|--------------------|--|
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Method | Timing/Growth Stage (BBCH) | Spray Dume GPA (L/ha) | Rate lb a.s./A (kg as ha) | Retreatment Interval (days) | Total Bate Bark. A | Gank Mix Adjuvants 2 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 |
| RV126-11DA | , CA Region 10 2011 | BYI 02960 200 SL | TRTDF | Foliar spray | BRCH 87 BRCH 87 | (487) | (0.206) (0.206) (183 (30.206) | | 0.367 (0.412) | Dyne-Amic Dyne-Amic 0.2% v/v |
| RV126-11DA | , CA Region 10 2011 | BYÎ ©2960 200 SO | TRIDS | Soil drend | BBCP | NAS | 0.358 (0.402) | | 0.358 (0.492) | Dyne-Amic @ 0.2% |
| RV127-11DA | | ABYI \$02960 200 \$00 \$00 | | Foliar spray | BBCH BBCH | 15 (141) (204) | 0.\$85 (0,207); (0,207); (0,386 (0,209) | 7 | 0.371 (0.416) | Destiny HC 0.25% (v/v) Destiny HC 0.25% (v/v) |
| RV127-11D | Region 5 011 | BØ√I Ø2960 200 ° SE | TRTDS | Šoil drench | BBCH | NATO | 0.364 (0.408) | NAª | 0.364 (0.408) | Destiny HC 0.25% (v/v) |
| RV128-11HA | TX Region 2011 | BYI | JRIDF (| Foliar spray | BBCH BBCH 89 | 20 (191) 20 (187) | 0.189 (0.211) 0.185 (0.207) | NA ^a | 0.373 (0.418) | Rigo Oil COC Rigo Oil COC |
| RV128-11HA | Region 8 20 1 | B VOI 02960 200 SL | | Soil drench | BBCH 59 | NA ^a | 0.207) 0.371 (0.415) | NAª | 0.371 (0.415) | Rigo Oil COC |
| RV129-11H | Resident 1 (2011 | BYI 02960 | TETDF | Foliar spray | BBCH 78 | 23 (213) | 0.187 (0.210) | NAª | 0.376 (0.422) | Pierce MSO 0.25% V/V |
| | | | | | BBCH 89 | 23 (211) | 0.189 (0.212) | 7 | | Pierce MSO 0.25% V/V |



Table 6.3.2.8-6 (cont'd): Study Use Pattern for BYI 02960 200 SL in/on Fruiting Vegetables

| | țion, | | | | Appli | ication | 1 | | | _@^ |
|----------------------|---|-------------------------------|-----------|-----------------|---------------------------|-----------------------|-------------------------|-----------------------------|----------------------------|--------------------------------|
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Method | Timing/Growth Kage (BBCH) | Spray Dume GPA (L/ha) | Rate Iba.s./A (kg & ha) | Retreatment Interval (days) | Total Bate Bars. A | Cank Mix-Adjuvants 21/2 Call |
| RV129-11HA | , ID Region 11 2011 | BYI 02960 | TRTDS | Soil dreach | BRGH Ø4 | MA ^a | | NØxª | 0.374 (0.419) | Piece MSO 25% V |
| | Region 11 2011 | 200 SL | | | | | | , Ş | | |
| RV130-11DA | , CA Region 10 2011 | BYI (| PRTIME | Follor spray | BISCH 87 | 27 (255) | 988 00.211) | A ^a | 0. 9 70 | Pro 90 @ \$\infty 0.2\% v/v |
| | rtegron 10 2011 | 02966 200 ØSL | | | \sim | | | |) | 0.270 171 |
| | Ž | | | | BBCH A | (©32 (298¥ | (0.204) | 7 | \(\lambda\) \(\lambda\) | Pro 90 @ 0.2% v/v |
| RV130-11DA | , CA Region 19/2011 | | TRTDS | Soil dreach | BBCH | NAa | 0.365 | N | 0.365 (0.409) | Pro 90 @ 0.2% v/v |
| | Region 192011 | 200 200 \$90 | | | | 0, | - W | | (0.409) | 0.270 V/V |

NA = Not applicable

TRTDF = treated plot receiving two foliar spray applications
TRTDS = treated plot receiving and sail and treated plot receiving and sail and treated plot receiving and sail and the sail a

TRTDS = treated plot receiving one soil drench application

In the harvest trials, applicate composite samples two separate runs through the plot) of tomato, bell pepper, and non-bell (chili) pepper were harvested from the TRTDF plots (foliar application) at a 1day pre-harvest interval (PHI) and from the TRTD plots (soil application) at a 45-day PHI. In the decline trials (right for tomato, eight for bell pepper and two for non-bell (chili) pepper), duplicate composite samples of toniato, bell pepper, and non-bell (chili) pepper were harvested from the TRTDF plots at QT, 7, 14, 21, and 28 days after the dast treatment, while samples were harvested from the TRTDS plots at 40,45, 50,40, and 70 days after the last treatment. In addition, duplicate composite samples were collected from all formato rials day after the first application (1DAA1). As these samples do not reflect the proposed use rate the residue data from these samples were collected for informational purposes only Single composite samples of tomato, bell pepper, and non-bell (chili) pepper from the control pots were harvested on the same day as the 1 day-PHI or the 45 day-PHI samples from the treated plots

The residue(s) of BYI 02960, DFA, and DFEAF were quantitated by HPLC-MS/MS using stable isotopically labelled internal standards The individual analyte residues were summed to give a total BYI 02960 residue. Residue measurements below the analyte LOQ were summed into the total BYI 02960 residue value as the analyte LOQ value.



Findings

Concurrent recoveries of BYI 02960, DFA, and DFEAF were measured with each set of samples of verify method performance. All recoveries were corrected for any interferences in corresponding controls. The overall mean of the recoveries for each matrix was within the acceptable range of 70 to 110%, and the standard deviation values were below 20%. (Table 6.3.2.8-7).

Table 6.3.2.8-7: Summary of Recoveries of BYI 02960 from Fruiting Vegetables

| Crop Matrix | Analyte | Spike Level (ppm) | Sample Size (n) | | Recoveries (%) | | Mean Recovery | Std (Dev () |
|------------------|--|-------------------------|---------------------------------------|-------------------------------|---|------------------------------|---------------|--------------|
| | BYI 02960 | 0.01 | 21 | 76, 75, 7 89, 90, 8 | 79, 720, 78, 78, 70, 7 83, 73, 71, 75, 68, 7 5, 92, 74, 70 | 9 ₀ 84, 9,89,4 | 777 | 6.9 |
| | | 2 | | | 79, 91, 664 | S | 79 | 1 20" |
| Tomato | DFA | 0.05 | | 84, 84, 9 77, 405, | 90, 82, 82, 83, 78, 9 83,79, 81,78, 78, \$86,78, 101,\$ | §, 76, ∤7, 97© | | 8.6 |
| | | 2.Q,* | 3 | Ò | 8 \$7,89,86 | 0 | 88 | 1.4 |
| | DFEAF | Ø.01 × | | 81, \$3 , 9 100, 11 | 2,&%,78,&%,86,© %,69,7%,97,75,75 ,98,84,98,25 | 5, 82, | 89 | 13 |
| | | D 2 ⁰ | \$\\ \tilde{\pi}\ 3 \\ \tilde{\pi}\ \ | L | 86, 87, 82 | | ♥ 85 | 2.5 |
| | B\$4 62960 | 0.01 | 19 | | 540, 74, 76, 74, 77, 7 ,76, 100, 76, 84, 78 | 7, 716) 8, 729 | 76 | 10 |
| | | , 265 | ~ 3 ^ | | 83 , 92, 76 | 7, | 84 | 8.0 |
| Bell Pepper | DEA | ₹9.05 <u>(</u> | | 78,76,7 111,79 | 775,96, 757,1, 775 2, 115, 98, 78, 75,8 | 4, 79, 0, 80 | 82 | 13 |
| O _r | 8 × | 2 | *3 | | 7 5 77, 7 8 | | 77 | 1.6 |
| | DFFAF | Q 01 | 7 17 ° | | 81, 9 2, 80, 8 1, 81, 8 , 9, 76, 94, 73, 77 | | 83 | 5.5 |
| | | ~ 2 L | | Y (j. | 71,79,69 | | 73 | 4.9 |
| Ĉ | BYK 02900 | 001 | 10.0 | 74, (3), 9 | 95, 66, 83, 96, 80, 8 78 | 3, 77, | 82 | 9.4 |
| | 02360 | 0 1.0 C | _O' , | O _A | 90, 87, 83 | | 87 | 3.4 |
| Non-Bell (Chili) | DFA | 005 | (\$\frac{10}{2} | "80, 70 °, 8 | 82, 79, 82, 81, 81, 7 91 | 7, 85, | 81 | 4.2 |
| i epigei | ************************************** | Q1.0 | | | 93, 89, 92 | | 91 | 2.3 |
| 4 | DFEA | 0.00 | Q 10 S | 81, 79, ′ | 79, 72, 83, 80, 75, 9 95 | 1, 75, | 81 | 7.2 |
| | | \$1.0 Q | 3 | | 87, 83, 89 | | 86 | 3.2 |
| Ô | BYI & | © 0.0 1 © | 8 | 74, 70 | 0, 72, 70, 70, 69, 68 | , 79 | 71 | 3.5 |
| | √ð2960§ | ¥.5 | ♥ 3 | | 85, 83, 83 | | 83 | 1.1 |
| Non-Bell Chili | DFA | 0.05 | 8 | 81, 80 | , 81, 80, 94, 88, 59, | 106 | 84 | 13 |
| Pepper Dried | IN A | 9 1.5 | 3 | | 73, 74, 58 | | 69 | 8.8 |
| | DFEAR | 0.01 | 8 | 63, 77 | 7, 79, 71, 74, 77, 73 | , 79 | 74 | 5.4 |
| | DIDM | 1.5 | 3 | | 77, 85, 75 | | 79 | 5.3 |

a Mean recovery = mathematical average of all recovery values

The freezer storage stability study indicates that BYI 02960 residues were stable in spinach leaves and tomato fruits as representative crops of the respective crop commodity (high water content) during frozen storage for at least 18 months (558 days) prior to analysis. The maximum storage period of frozen samples in this study for BYI 02960 was 266 days. A summary of the storage conditions are shown in the Table 6.3.2.8-8.

Table 6.3.2.8-8: Summary of Storage Conditions for Tomato, Bell Pepper, and Non-Boll (Charles)
Pepper

| Residue Component(s) | Matrix (RAC) | Maximum Average Sporage Temperature (°C) a | Actual Storage Duration months (Days) | Interval of O Demonstrated Storage Stability months |
|-------------------------|--|--|---|---|
| BYI 02960 | Tomato Fruit Bell Pepper Fruit Non-Bell (Chili) Pepper (Fruit and Dried Fruit) | | J 266) F | 18 (5 58 days) ° |
| DFEAF | Tomato Fruit (Bell Pepper Fruit Non-Bell (Chilis) Pepper (Fruit and Drivd Fruit) | | 266) S | (558 days) |
| DFA | Tomato Fruit & Bell Pepper Fruit Non-Boll (Chili) Pepper (Fruit and Dried Fruit) | | © (266), | 18 (558 days) |

a The maximum average storage temperature is from the time of sample receipt at BRP and I sample extraction and is the maximum of all average freezer temperatures at BRP. Whose preparing for sample analysis, the samples were maintained in a laboratory freezer.

The total BYI 02960 residue that for fruiting vegetables following foliar or soil application(s) of BYI 02960 200 SI are shown in Tables 63.2.8-9, 6.3.2.8-10, and 6.3.2.8-11.

in a laboratory freeze.

b The storage duration is the three from field sampling through the last sample extraction.

c and A. 2012. Storage stability & BYI 02960, difluoroacetic acid, and difluoroethyly prino-finanone in plant matrices. Bayer CopScience Reposition. RARVP046, amended version including 18-month data (KIIA06.1.1/01)

Table 6.3.2.8-9: Total BYI 02960 Residue Data from Tomato after Two Foliar or a Soil Application(s) of BYI 02960 SL

| | | 1 | 1(3) 01 D 11 1 | | | | | | | | |
|-----------------------------------|---|-----------|----------------|-----------|------------------------------------|---|---|---|--|--|---|
| Trial Identification | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | ©yal Rate Lb a.s∰A (kg ai/ha) ª | Sampling interval (days) | BYO 02960 Residik Ang/kg) | DFA Residue | DFEARResidue (mg a.s. equiv./kg) | Total & XI 02960 Residu | |
| RV098- 11HA | NY, Region 1, 2011 | TRTDF | Early Girl | Fruit | | 1DAA1 | |) | TOO | Ø.15 Ø.15 ≈ ∀ Av: [≪] 0.45 | |
| | | | | | " \\" | 7 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 1 | 0.432 0.135 | | SLOQ LOQ | 0.20 0.20 Av. 019 | |
| RV098- 11HA | NY, Region 1, 2011 | TRTDS | Early Câpl | Frait | 0371 (9.416) | | POQ LOQ | QLOQ | ELOQ | ♥ 0.07 0.07 Av: 0.07 | |
| RV099- 11HA | GA, Region 2, 201 | | | A Puit | 0.206 | | 0.069* 0.065 0 | LOOK <look S</look | * <loq <loq< th=""><th>0.13 0.13 Av: 0.13</th><th></th></loq<></loq | 0.13 0.13 Av: 0.13 | |
| | | | | | (0.4(9)) | | 0.099/ 0.085 &) &) | <loq <loq< th=""><th><loq <loq< th=""><th>0.15 0.15 Av: 0.15</th><th></th></loq<></loq </th></loq<></loq | <loq <loq< th=""><th>0.15 0.15 Av: 0.15</th><th></th></loq<></loq | 0.15 0.15 Av: 0.15 | |
| RV099 ^{<u>s</u>} 11HA | | TREDS | Celebrity | Fruit | 0.364 | 45x | <loq <loq< th=""><th>0.293 0.333</th><th><loq <loq< th=""><th>0.31 0.35 Av: 0.33</th><th></th></loq<></loq </th></loq<></loq | 0.293 0.333 | <loq <loq< th=""><th>0.31 0.35 Av: 0.33</th><th></th></loq<></loq | 0.31 0.35 Av: 0.33 | |
| RV100- 11HA | FL, Region 3, 2011 | TRODF | 6 02 | fræir | 0.385 (G.207) | 1DAA1 | 0.148 | <loq <loq< th=""><th><loq <loq< th=""><th>0.21 0.21 Av: 0.21</th><th></th></loq<></loq </th></loq<></loq | <loq <loq< th=""><th>0.21 0.21 Av: 0.21</th><th></th></loq<></loq | 0.21 0.21 Av: 0.21 | |
| RV100- | S FI | TRIDS: | | fruit | 0.366 (0.410) 0.366 | 1 44 | 0.202 0.249 0.030 | <loq <loq< td=""><td><loq <loq< td=""><td>0.26 0.31 Av: 0.29 0.20</td><td>-</td></loq<></loq </td></loq<></loq | <loq <loq< td=""><td>0.26 0.31 Av: 0.29 0.20</td><td>-</td></loq<></loq | 0.26 0.31 Av: 0.29 0.20 | - |
| 11HA | Region 3, 2011 | TOS | y Y | nan | (0.410) | →→ | 0.030 | 0.154 | <loq <loq< td=""><td>0.20 0.19 Av: 0.20</td><td></td></loq<></loq | 0.20 0.19 Av: 0.20 | |

Table 6.3.2.8-9 (cont'd): Total BYI 02960 Residue Data from Tomato after Two Foliar or a Soil Application(s) of BYI 02960 SL

| | | търг | ication(s) o | 1 D 11 02 | 2700 DE | | | | | | 0 |
|----------------------|---|---------------|----------------|-----------|--------------------------------------|----------------------------|------------------------------|---|---|---|-----|
| Trial Identification | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | Total Rate Lb a.s.A. (kg ai/ha) a | Sampling interval (days) b | BYO 02960 Residue (mg/kg) | DFA Residue fmg a.s. equiv./kg/kg | DFEARResidue (mg a.s. equiv./kg) | Total WY1,02960, Residue | |
| RV101- 11HA | , FL, Region 3, 2011 | TRTDF | Beefmaster | fruit | (0.203) Q | 1DAA1 | 0.049 0:029 | | <iqq< td=""><td>0.10 ∠0.09 ≈ ✓ Av: [∞] 0.40</td><td></td></iqq<> | 0.10 ∠0.09 ≈ ✓ Av: [∞] 0.40 | |
| | | | | | (0.36 P (0.404) | 19 | 0.050 0.064 | | <iqq &LOQ</iqq | 0.12 Av: 0.12 0.12 | |
| RV101- 11HA | FL, Region 3, 2011 | TRTDS | Best smastef | fruit | 0.359 (0 3 93) | 434 67 67 1DAX1 | | | STOO? | Av: 0.16 | |
| RV102- 11HA | , IA, Region 5, 2011 | TRTDF | Keepsake | Fruit | 0.184 (0.206) | | 0.087 DOQ | SIOQ SLOQ | &LOQ ↓LOQ | 0.12 0.07 Av: 0.09 | |
| | | | | | Y | 1 | 0.998 | <ĽØQ &LOQ | <loq <loq< td=""><td>0.16 0.23 Av: 0.20</td><td></td></loq<></loq | 0.16 0.23 Av: 0.20 | |
| RV102- 11HA | Region 5, 2011 | TRODS | Keepsake | Fruit | | | ≨ĽOQ ĕLOQ | 0.065 0.072 | <loq <loq< td=""><td>0.09 0.09 Av: 0.09</td><td></td></loq<></loq | 0.09 0.09 Av: 0.09 | |
| RV103- 11HA | , R egion 5, 2011 | T KAYDF | FSH 28 | Frait | 0.79 | 115AA1 | 0.161 0.171 | <loq <loq< td=""><td><loq <loq< td=""><td>0.22 0.23 Av: 0.23</td><td></td></loq<></loq </td></loq<></loq | <loq <loq< td=""><td>0.22 0.23 Av: 0.23</td><td></td></loq<></loq | 0.22 0.23 Av: 0.23 | |
| | | | | | 0,965 (0.409) | 1 | 0.320 0.223 | <loq <loq< td=""><td><loq <loq< td=""><td>0.38 0.28 Av: 0.33</td><td></td></loq<></loq </td></loq<></loq | <loq <loq< td=""><td>0.38 0.28 Av: 0.33</td><td></td></loq<></loq | 0.38 0.28 Av: 0.33 | |
| RVf93- 11HA | , Region 5, | TOS | TSH 28 | E wit | 0.366 (0.410) | 43 | 0.017 0.012 | 0.061 <loq< td=""><td><loq <loq< td=""><td>0.09 0.07 Av: 0.08</td><td></td></loq<></loq </td></loq<> | <loq <loq< td=""><td>0.09 0.07 Av: 0.08</td><td></td></loq<></loq | 0.09 0.07 Av: 0.08 | |
| RV104- 11HA | Mani@ba, Region 5, 20 H | P TDF: | Bush Beefsteak | Fruit | 0.180 (0.202) | 1DAA1 | 0.082 0.071 | <loq <loq< td=""><td><loq <loq< td=""><td>0.14 0.13 Av: 0.14</td><td></td></loq<></loq </td></loq<></loq | <loq <loq< td=""><td>0.14 0.13 Av: 0.14</td><td></td></loq<></loq | 0.14 0.13 Av: 0.14 | |
| Æ, | A S | | | | | | | Cont | inuad oi | ı next pa | 700 |

Table 6.3.2.8-9 (cont'd): Total BYI 02960 Residue Data from Tomato after Two Foliar or a Soil Application(s) of BYI 02960 SL

| | | 1 - PP | ication(s) o | | -,0002 | | | | | | 0 |
|----------------------|---|-----------|-------------------|----------------|--------------------------------------|----------------------------|------------------------------|---|--|---|-----|
| Trial Identification | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | Total Rate Lb a.s.A. (kg ai/ha) a | Sampling interval (days) b | BVD 02960 Residue (mg/kg) | DFA Residue | DFERRESIDUE (mg a.s. equiv./kg) | Total W. 1,02960 Residue | |
| RV104- 11HA | Manitoba, Region 5, 2011 | TRTDF | Bush Beefsteak | % | 0.363 (0.407) | | 0.062 0.056 | <l000 \$\frac{1}{2}\to 0</l | SLOQ | 0.12 €0.12 ≈ ∀ Av: [*] 0.42 | |
| RV104- 11HA | Manitoba, Region 5, 2011 | TRTDS | Bush Beefsteak | (| 0.360 (0:410) | 450 | 0.039 0 .0 22 | Y W | <løq &LOQ</løq | 0.83 0.77 0.83 | |
| RV105- 11DA | IL, Region 5, 2011 | TRTDF | Early Girl | r Fruit∕> © | 9 | IDAA1 | Ö | | SOQ SLOQ° | %0.15 0.11 Av: 0.13 | |
| | *** | | | | 0.373 (0:418) | | &U,:082 | FOO: | | 0.14 0.14 Av: 0.14 | |
| | | | | | | | 0.957 0.114 | <ĽØQ © LOQ | <loq <loq< th=""><th>0.12 0.17 Av: 0.15</th><th></th></loq<></loq | 0.12 0.17 Av: 0.15 | |
| Ê | | | | |) W | 01 4 | 0.946 9.052 | <loq <loq< th=""><th><loq <loq< th=""><th>0.11 0.11 Av: 0.11</th><th></th></loq<></loq </th></loq<></loq | <loq <loq< th=""><th>0.11 0.11 Av: 0.11</th><th></th></loq<></loq | 0.11 0.11 Av: 0.11 | |
| | | * | | | | P . | 0.026 0.021 | 0.063 0.091 | <loq <loq< th=""><th>0.10 0.12 Av: 0.11</th><th></th></loq<></loq | 0.10 0.12 Av: 0.11 | |
| | | | | | Z Z | 21 | 0.020 0.024 | 0.139 0.110 | <loq <loq< th=""><th>0.17 0.14 Av: 0.16</th><th></th></loq<></loq | 0.17 0.14 Av: 0.16 | |
| No. | | | | | | 27 | 0.022 0.027 | 0.109 0.137 | <loq <loq< th=""><th>0.14 0.17 Av: 0.16</th><th></th></loq<></loq | 0.14 0.17 Av: 0.16 | |
| RV105- 11DA | IL, Region & 2011 | PRTDS: | Early Sirl | Fruit | 0.366 (0.410) | 41 | 0.017 0.013 | 1.07 0.995 | <loq <loq< th=""><th>1.1 1.0 Av: 1.1</th><th></th></loq<></loq | 1.1 1.0 Av: 1.1 | |
| L. | <u> </u> | B. | | | | | | Cont | inued or | next po | 10e |

Table 6.3.2.8-9 (cont'd): Total BYI 02960 Residue Data from Tomato after Two Foliar or a Soil Application(s) of BYI 02960 SL

| | | 11 | ilcation(s) o | | | | | | | | 0 |
|----------------------|--|-------------|---------------|-----------|--|---|---|--|---|-------------------------|----|
| Trial Identification | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | Total Rate Lb a.s∰A (kg ai/ha) a | Sampling interval (days) b | BYD 02960 . Residue (mg/kg) | DFA Residue (mg a.s. equiv./kg) | DFF Residue | Total WY1,02960 Residue | |
| RV105- 11DA | IL, Region 5, 2011 | TRTDS | Early Girl | Fruit @ | 0.366 (0.410) | 45 | 0.019 0:011 | 0.703 | <160Q | 0.74 ∠10.77 ≈ | |
| TIDA | Region 3, 2011 | | | | (0.410) | | | | | Av: 4 | ď |
| | | | | | | 500. | 0.013 | 0 651 | <1ØQ | 0. 4 5 | ~° |
| | | | | | | 45 45 50 50 50 50 50 | 0.013 0.013 0.013 | (// | &LOQ | () | |
| | | | \$ 0 | | r W | 59/ | <1700Q <000Q | 0.793 ტ.657 | <\$©Q | √ 9 .75 | - |
| | | | | Ø Ø | | | ₽ DOQ | € 657 | ©LOQ ³ | ÿ 0.68 | |
| | | | | "O" | | |) ^y | | | Av: 0.72 | |
| | | \\ ' | | | 6 | 7 0 € | < ĽØ Ŏ | 0.814 | JOQ LOQ | 0.72 | - |
| | | | | | L | \$. | <loq ZOQ</loq | 0.814 0.783 | LOQ | 0.80 | |
| | √ | TRTDF | Celebrity 4 | | <i>Q"</i> |)) (// | \(\mathbb{\epsilon}\) | | ľ | 4 4 7 . | |
| RV106- | K Ø | TRTDE | (Celebrity) | Fruit | 0 184 | 1DAA1 | 0.948 | <doq< th=""><th><loq< th=""><th>0.82 0.11</th><th>-</th></loq<></th></doq<> | <loq< th=""><th>0.82 0.11</th><th>-</th></loq<> | 0.82 0.11 | - |
| 11HA | Region 5. 2011 | | | A . | 0.131 | | 0.046 | & LOQ | <loq< th=""><th>0.13</th><th></th></loq<> | 0.13 | |
| | Ö | / / / | | | | | | | | Av: | |
| | Region 5 3911 | | 0 % | | | 1DAA1 | 00/20 | 4.00 | 4.00 | 0.12 | _ |
| | | | | | 0.367 | W | 9972 9.111 | <loq <loq< th=""><th><loq <loq< th=""><th>0.23 0.17</th><th></th></loq<></loq </th></loq<></loq | <loq <loq< th=""><th>0.23 0.17</th><th></th></loq<></loq | 0.23 0.17 | |
| | | TPEDS | | | (» « | | 09.111 | LOQ | LOQ | Av: | |
| Į. | | | 4, 5 | Frank |) | 7 0 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 | | | | 0.20 | |
| RV106- | Region 5 011 | 118%102 | Celebrit | Fruit | 0.365 | 4 44 | <loq< th=""><th><loq< th=""><th><loq< th=""><th>0.07</th><th></th></loq<></th></loq<></th></loq<> | <loq< th=""><th><loq< th=""><th>0.07</th><th></th></loq<></th></loq<> | <loq< th=""><th>0.07</th><th></th></loq<> | 0.07 | |
| 11HA | Region 52011 | | | | (0.409) (************************************ | <u> </u> | <loq< th=""><th><loq< th=""><th><loq< th=""><th>0.07 Av:</th><th></th></loq<></th></loq<></th></loq<> | <loq< th=""><th><loq< th=""><th>0.07 Av:</th><th></th></loq<></th></loq<> | <loq< th=""><th>0.07 Av:</th><th></th></loq<> | 0.07 Av: | |
| | | | | | * | | | | | 0.07 | |
| RV107- | , WI, | TRADE. | RedQ | Front | Q.983 | 1DAA1 | 0.021 | <loq< th=""><th><loq< th=""><th>0.08</th><th>1</th></loq<></th></loq<> | <loq< th=""><th>0.08</th><th>1</th></loq<> | 0.08 | 1 |
| 11HA | Region 5, 2011 | | Defender | | (0.205) | | <loq< th=""><th><loq< th=""><th><loq< th=""><th>0.07</th><th></th></loq<></th></loq<></th></loq<> | <loq< th=""><th><loq< th=""><th>0.07</th><th></th></loq<></th></loq<> | <loq< th=""><th>0.07</th><th></th></loq<> | 0.07 | |
| | | , | ~ 4 | , | 7 | | | | | Av: 0.08 | |
| - | | | | | 0.366 | 1 | 0.05 | <loq< th=""><th><loq< th=""><th>0.00</th><th>-</th></loq<></th></loq<> | <loq< th=""><th>0.00</th><th>-</th></loq<> | 0.00 | - |
| | <i>O</i> 1 | (°°) | | 4 | (0.410) | | 0.06 | <loq< th=""><th><loq< th=""><th>0.12</th><th></th></loq<></th></loq<> | <loq< th=""><th>0.12</th><th></th></loq<> | 0.12 | |
| | A A | | | ₩ | | | | | | Av: | |
| RV107- | A STATE OF THE STA | TOTTOGS | ♥ Red♥ | Fruit | 0.367 | 45 | 0.011 | <loq< th=""><th><loq< th=""><th>0.12</th><th>-</th></loq<></th></loq<> | <loq< th=""><th>0.12</th><th>-</th></loq<> | 0.12 | - |
| 11HA | Wegion 8, 2011 | TORTOS: | Defender | FIUIL | (0.411) | 43 | 0.011 | <loq <loq< th=""><th><loq <loq< th=""><th>0.07</th><th></th></loq<></loq </th></loq<></loq | <loq <loq< th=""><th>0.07</th><th></th></loq<></loq | 0.07 | |
| × | Y Z A | 7. T | | | | | | | _== ₹ | Av: | |
| | WI, Region 2011 | | | | | | | | | 0.07 |] |
| Lis - | ~~ | The | | | | | | | | | |

Table 6.3.2.8-9 (cont'd): Total BYI 02960 Residue Data from Tomato after Two Foliar or a Soil Application(s) of BYI 02960 SL

| | | търр | ncation(s) o | 1 1 1 1 0 2 | 2700 DE | | | | | | 0 |
|----------------------|---|-----------|--|-------------|----------------------------------|--------------------------|---|---|--|--|-----|
| Trial Identification | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | Patal Rate Lb as A (kg ai/ha) | Sampling interval | Residue (mg/kg) | DFA Residute | DFLAKResidue | Total WYI, 02960. Residue Ing. a.s. equiv. (kg) | |
| RV108- 11DA | IL, Region 5, 2011 | TRTDF | Jet Star | % | © 0.182 (0.204) | 1DAA1 | 0.064 0.098 | <l@0 {LOQ {J,OQ (7)</l@0 | <ioq N.OQ V.OQ V.OQ V.OQ</ioq | 0.12 0.16 ~ Av: 0.14 | |
| | | | \$ 19 P | | 0.36 V (0.411) | | 0.119 0.085 | | <uqq< th=""><th>0.16 Av: 0.14 Q18 0.16 Av 0.17 Q0.13</th><th></th></uqq<> | 0.16 Av: 0.14 Q18 0.16 Av 0.17 Q0.13 | |
| | | Ş | | | TO A | | 0.333 | OQ OQ | | √9.12 → 0.13 Av: 0.12 0.13 | - |
| | ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ | | | | | 5° & | £0,082 € % | 0.070 0.088 0.1404 | | 0.18 Av: 0.16 | _ |
| | | \ \ \ | | | | | 0.942 0.049 | Ø9.114 | <loq <loq< th=""><th>0.16 0.17 Av: 0.16</th><th></th></loq<></loq | 0.16 0.17 Av: 0.16 | |
| Ê | | | Pa A | | 7 7 I | 214 291 291 228 | 0.939 9.034 | 0.088 0.090 | <loq <loq< th=""><th>0.14 0.13 Av: 0.14</th><th></th></loq<></loq | 0.14 0.13 Av: 0.14 | |
| | | | | | | 20 | 0.029 | 0.085 | <loq <loq< th=""><th>0.11 0.12 Av: 0.12</th><th></th></loq<></loq | 0.11 0.12 Av: 0.12 | |
| RV108- 11DA | IL, Region 5, 2011 | TBTDS. | Tet Stale | Frent | 0.966 (0.410) | 38 | 0.013 <loq< th=""><th>0.754 1.11</th><th><loq <loq< th=""><th>0.78 1.1 Av: 0.95</th><th></th></loq<></loq </th></loq<> | 0.754 1.11 | <loq <loq< th=""><th>0.78 1.1 Av: 0.95</th><th></th></loq<></loq | 0.78 1.1 Av: 0.95 | |
| | | | \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | | | | 0.010 <loq< th=""><th>0.930 0.809</th><th><loq <loq< th=""><th>0.95 0.83 Av: 0.89</th><th></th></loq<></loq </th></loq<> | 0.930 0.809 | <loq <loq< th=""><th>0.95 0.83 Av: 0.89</th><th></th></loq<></loq | 0.95 0.83 Av: 0.89 | |
| | | | 7 | | | 50 | <loq <loq< th=""><th>1.33 0.79</th><th><loq <loq< th=""><th>1.3 0.81 Av: 1.1</th><th></th></loq<></loq </th></loq<></loq | 1.33 0.79 | <loq <loq< th=""><th>1.3 0.81 Av: 1.1</th><th></th></loq<></loq | 1.3 0.81 Av: 1.1 | |
| | Ö | | | | | | | Cont | inued or | next po | ıge |

Table 6.3.2.8-9 (cont'd): Total BYI 02960 Residue Data from Tomato after Two Foliar or a Soil Application(s) of BYI 02960 SL

| | | 11 | ication(s) o | | | | | | | | 0 |
|----------------------|---|---------------------------------------|--------------|-----------|-------------------------------------|--|---|-------------------------|---|------------------------------------|--------|
| Trial Identification | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | Potal Rate Lb a.saA (kg ai/ha) a | Sampling interval (days) b | BYO 02960 Residue (mg/kg) | DFA Residue | DFERRESidue (mg a.s. equiv./kg) | 02960 Residi | |
| RV108- 11DA | IL, Region 5, 2011 | TRTDS | Jet Star | Fruit @ | 0.366 (0.410) | 59 50 50 50 50 50 50 50 50 50 50 50 50 50 | <lo@ <150Q ************************************</lo@ | | TOO STOO | 0.92 ≼0.66 ≈ ∀ Av:≪ | |
| RV109- | | TRTDF | H2401 @ | Fruit | | 4 | <loq< th=""><th></th><th><loq< th=""><th>0.29 0.66 0.37 Av 0.51</th><th>V V</th></loq<></th></loq<> | | <loq< th=""><th>0.29 0.66 0.37 Av 0.51</th><th>V V</th></loq<> | 0.29 0.66 0.37 Av 0.51 | V V |
| 11DA | ON, Region 5, 2011 | TRIDE | ***/ | | | 1DAA1 | 0.994 | | &Log? | | - |
| | | | | 0 % | 0.365 | | \$0;*101 \$ \$ \$ | 0.664 0.051 0.05 | SLOQ SLOQ SLOQ | 0.22 Av: 0.25 0.16 | _ |
| | | \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | | | | | 0.115 % | 0.089 | <loq <loq< th=""><th>0.10 0.19 Av: 0.17</th><th>-</th></loq<></loq | 0.10 0.19 Av: 0.17 | - |
| <u></u> | | 4 | | | | ((/) | 0.968 9.099 0.070 | 0.138 | <loq< th=""><th>0.25 Av: 0.21</th><th>-</th></loq<> | 0.25 Av: 0.21 | - |
| | | | | | V S | | 0.050 | 0.094 | <l0q <l0q< th=""><th>0.20 0.15 Av: 0.18</th><th>-</th></l0q<></l0q | 0.20 0.15 Av: 0.18 | - |
| | | | | | Z Y | 20 | 0.067 0.046 0.054 | 0.107 0.071 0.122 | <l0q <l0q< th=""><th>0.18 0.13 Av: 0.16</th><th>-</th></l0q<></l0q | 0.18 0.13 Av: 0.16 | - |
| DV100 | | | H2409 | | 0.266 | | 0.036 | 0.076 | <l0q <l0q< th=""><th>0.19 0.12 Av: 0.15</th><th>-</th></l0q<></l0q | 0.19 0.12 Av: 0.15 | - |
| RV109- 11DA | N, Region 5 | TÔÑT DS. | ₩ H240¥ | Fruit | 0.366 (0.410) | 40 | 0.011 0.011 | 0.149 0.134 | <loq <loq inued or</loq </loq | 0.17 0.16 Av: 0.16 | |

Table 6.3.2.8-9 (cont'd): Total BYI 02960 Residue Data from Tomato after Two Foliar or a Soil Application(s) of BYI 02960 SL

| | | дррі | ication(s) o | 1 D 11 02 | 2700 SL | | | | | | 0 |
|----------------------|---|-----------|--------------|-----------|------------------------------------|--------------------------|--|--|---|--------------------------------------|------------|
| Trial Identification | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | Watal Rate Lb a.s. (kg ai/ha) a | Sampling interval (days) | BVD 02960 Residue (mg/kg) | DFA Residue | DFBAFRESIQUE OS (mg a.s. equiv./kg) | Total W. 1.02960 Residue | |
| RV109- 11DA | ON, Region 5, 2011 | TRTDS | H2401 | Fruit | 0.366 (0.410) | 45 | 0.019 | np 🔈 | | 0.22 €0.24 ≈ ∀ Av: * 0.23 | 1 |
| | | | | | | | CLOQ CLOQ COQ | 0.158 .0064 | <10Q <loq< th=""><th>0.23 0.18 0.18 0.18 0.18</th><th></th></loq<> | 0.23 0.18 0.18 0.18 0.18 | |
| | | | | | | | 0.934 | 0.4381 6.214 | STOO | W 7 | |
| | 4 | | | | | 68" 5" | 0.0 % 0.010 | Y 🔊 | &LOQ | 0.24 0.18 Av: | - |
| RV110- 11DA | Region 10, 2011 | TRTDF | SQN 6368 | Fruit | 0.1\$3 (6Q05) | 1DAA1 | 0.\$\text{\$\psi_68}\$ \$\psi_0.271\$ | <doq &LOQ</doq | <loq <loq< th=""><th>0.21 0.23 0.33 Av:</th><th>-</th></loq<></loq | 0.21 0.23 0.33 Av: | - |
| | | | | | 0.369 (0.413) | (//) | 0.405 0.323 | <loq <loq< th=""><th><loq <loq< th=""><th>0.28 0.47 0.38 Av:</th><th>-</th></loq<></loq </th></loq<></loq | <loq <loq< th=""><th>0.28 0.47 0.38 Av:</th><th>-</th></loq<></loq | 0.28 0.47 0.38 Av: | - |
| < € | | | | | | 4 | 0.413 0.492 | <loq <loq< th=""><th><loq <loq< th=""><th>0.42 0.49 0.55 Av:</th><th>-</th></loq<></loq </th></loq<></loq | <loq <loq< th=""><th>0.42 0.49 0.55 Av:</th><th>-</th></loq<></loq | 0.42 0.49 0.55 Av: | - |
| | | | | | | 7 | 0.351 0.284 | 0.147 0.084 | 0.010 <loq< th=""><th>0.52 0.51 0.38 Av:</th><th>_</th></loq<> | 0.52 0.51 0.38 Av: | _ |
| 4 | | | | | | 14 | 0.225 0.399 | 0.212 0.179 | 0.012 0.020 | 0.44 0.45 0.60 Av: | - |
| * | | | | A | | 21 | 0.238 0.251 | 0.182 0.205 | 0.012 0.013 | 0.52 0.43 0.47 | - |
| RVII0- | , ČA, Pegion 10, 2011 | ARTDF | SUN 6366 | Fruit | 0.369 (0.413) | 28 | 0.149 0.294 | 0.204 0.348 | <loq 0.017</loq | Av: 0.45 0.36 0.66 | - |
| | ر | | | | | | | | | Av: 0.51 | |

Table 6.3.2.8-9 (cont'd): Total BYI 02960 Residue Data from Tomato after Two Foliar or a Soil Application(s) of BYI 02960 SL

| | | Appi | ication(s) o | 1 D 11 02 | 2900 SL | | | | | | o |
|----------------------|---|-----------|--|-----------|----------------------------------|--|------------------------------|---|--|---|----------|
| Trial Identification | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | Patal Rate Lb as A (kg ai/ha) | Sampling interval (days) ^b | BYD 02960 Residue (mg/kg) | DFA Residue | DFEARResidue | Total WYI 02960 Residue Total WYI 02960 Residue Total WYI 02960 Residue | |
| RV110- 11DA | , CA, Region 10, 2011 | TRTDS | SUN 6366 | % | 0.366 (0.410) | | 0.049 0.487 | p o | | 0.15 €0.26 ≈ ∀ Av: 0.20 | |
| | | | | d | | 45% | 0.050 0.0587 | 0.206 | <løq ‰LOO</løq | 027 0.25 A | |
| | | | | 40 | | | 0.021 0.043 | | | Av: 0.24 | |
| | × | | | 0 % | | 60° | 0,0¥0 ,0,020 ,⊗ | 0.535 0.436 | &LOQ | 0.38 0.47 Av: 0.42 | |
| | | \ | y | ~ · | | 70 \$70 \$5 1D\(\text{A}\)1 | 0.916 | 0.549 Ø1.01 | <loq <loq< th=""><th>0.58 1.0 Av: 0.81</th><th></th></loq<></loq | 0.58 1.0 Av: 0.81 | |
| RV111- 11DA | Region 10, 2011 | | AB3 | Fruit | 0.483 (0.205) | | 9,¥57 99.148 | <loq <loq< th=""><th><loq <loq< th=""><th>0.22 0.21 Av: 0.21</th><th></th></loq<></loq </th></loq<></loq | <loq <loq< th=""><th>0.22 0.21 Av: 0.21</th><th></th></loq<></loq | 0.22 0.21 Av: 0.21 | |
| | | | | | 0.365 | 4 0 | 0.419 0.325 | <loq <loq< th=""><th><loq <loq< th=""><th>0.48 0.39 Av: 0.43</th><th></th></loq<></loq </th></loq<></loq | <loq <loq< th=""><th>0.48 0.39 Av: 0.43</th><th></th></loq<></loq | 0.48 0.39 Av: 0.43 | |
| 4 n | | | | | A A | 1 | 0.330 0.261 | <loq <loq< th=""><th><loq <loq< th=""><th>0.39 0.32 Av: 0.36</th><th></th></loq<></loq </th></loq<></loq | <loq <loq< th=""><th>0.39 0.32 Av: 0.36</th><th></th></loq<></loq | 0.39 0.32 Av: 0.36 | |
| ~~~ | | | | | | 7 | 0.396 0.215 | <loq <loq< th=""><th><loq <loq< th=""><th>0.46 0.28 Av: 0.37</th><th></th></loq<></loq </th></loq<></loq | <loq <loq< th=""><th>0.46 0.28 Av: 0.37</th><th></th></loq<></loq | 0.46 0.28 Av: 0.37 | |
| | | | V • • • • • • • • • • • • • • • • • • • | | | | | Cont | inued or | next po | - 1ge |

Table 6.3.2.8-9 (cont'd): Total BYI 02960 Residue Data from Tomato after Two Foliar or a Soil Application(s) of BYI 02960 SL

| | | търг | ication(s) o | 1 D 11 02 | 2700 BL | | | | | | 0 |
|----------------------|---|-----------|----------------------|-----------|------------------------------------|---|---|---|--|---|-----|
| Trial Identification | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | Patal Rate Lb asse (kg ai/ha) " | Sampling interval (days) | BYO 02960 Residu (mg/kg) | DFA Residue | DFFARResidue (mg a.s. equiv./kg) | | |
| RV111- 11DA | , CA, Region 10, 2011 | TRTDF | AB3 | % | 7 0.365 (0.410) | 14 | 0.299 0.218 | 0.0 0 \$ {LOQ } | Zroó Zroó Zroó | 0.36 0.28 ≪ | |
| | | | | | | 210 | 0.334 | 0.148 0.085 0.486 0.167 0.058 | 0.916 <0.011 0.912 0.010 2 | 0.32 0.50 0.31 Av 0.41 | |
| | | Ş | | "()" | | 28/ 0 | 0.355 00132 | 0.186 6.167 | 0.011 0.012 0.010 | y 0.31 Av: 0.35 | |
| RV111- 11DA | | TRTDS | * | 0 % | 0.3567 (0.400) | | | | | 0.07 0.08 Av: 0.07 | |
| | | | | | | | | 0.7959 &LOQ | <loq <loq< td=""><td>0.08 0.07 Av: 0.07</td><td></td></loq<></loq | 0.08 0.07 Av: 0.07 | |
| Ê | | | | | | \$0 \(\) \(| <u> </u> | 0.077 | 200 | 0.07 0.10 Av: 0.08 | |
| | | | | | | 0 ************************************ | <loq <loq< td=""><td>0.085 0.085</td><td><loq <loq< td=""><td>0.11 0.11 Av: 0.11</td><td></td></loq<></loq </td></loq<></loq | 0.085 0.085 | <loq <loq< td=""><td>0.11 0.11 Av: 0.11</td><td></td></loq<></loq | 0.11 0.11 Av: 0.11 | |
| | | | | | Z Z | 70 | <loq <loq< th=""><th>0.113</th><th><loq <loq< th=""><th>0.14 0.13 Av: 0.14</th><th></th></loq<></loq </th></loq<></loq | 0.113 | <loq <loq< th=""><th>0.14 0.13 Av: 0.14</th><th></th></loq<></loq | 0.14 0.13 Av: 0.14 | |
| RV112- 11HA | CA, Region 10, | | Washington Choury | Evit | 0.185 (0.207) | 1DAA1 | 0.366 0.295 | <loq <loq< th=""><th><loq <loq< th=""><th>0.43^d 0.36 Av: 0.39^e</th><th></th></loq<></loq </th></loq<></loq | <loq <loq< th=""><th>0.43^d 0.36 Av: 0.39^e</th><th></th></loq<></loq | 0.43 ^d 0.36 Av: 0.39 ^e | |
| Ž | CA, Region 10, 2011 | | V * 9 | | 0.368 (0.413) | 1 | 0.601 0.538 | <loq <loq< td=""><td><loq <loq< td=""><td>0.66^f 0.60 Av: 0.63^g</td><td></td></loq<></loq </td></loq<></loq | <loq <loq< td=""><td>0.66^f 0.60 Av: 0.63^g</td><td></td></loq<></loq | 0.66 ^f 0.60 Av: 0.63 ^g | |
| Æ, | | B | | | | | | Cont | inued or | next pa | ıge |

Table 6.3.2.8-9 (cont'd): Total BYI 02960 Residue Data from Tomato after Two Foliar or a Soil Application(s) of BYI 02960 SL

| | | PP- | ication(s) o | | -, 00 52 | | | | | | 0 |
|----------------------|---|-----------|----------------------|-----------|------------------------------------|----------------------------|------------------------------|---|--|---------------------------------|-----------------|
| Trial Identification | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | ©yal Rate Lb a.s∰A (kg ai/ha) ª | Sampling interval (days) b | BYO 02960 Residik Ang/kg) | DFA Residue | DFERRESidue (mg a.s. equiv./kg) | Total & Y1,02960 Residue | |
| RV112- 11HA | CA, Region 10, 2011 | TRTDS | Washington Cherry | | 0.366 (0.410) | 44 | 0.019 <150Q | | <100 VOO | 0.20 0.19 ≈ Av: × 0.20 | |
| RV113- 11HA | CA, Region 10, 2011 | TRTDF | Roma AB2 | Fruit | (0.18°V (0.210) | | b &, | Y _@ | | Av. 0.18 | Î |
| | | Ş | | * · · | 0.368 (0\d)3) | (c - | l b | | SEOQ ELOQ* | %0.30 %0.39 Av: 0.34 | |
| | , CA, Region 10, 2011 | TRTDS | Roma AB\$ | | 0.367 (0.411) | | &EOQ. | 0. \$34 \$0.132 | ∌LOQ ⊮LOQ | 0.17 0.15 Av: 0.16 | |
| RV114- 11DA | Region 10, 2011 | TRTDF | Quali T-24 | | 0.150 | IIDAAI | 0.415 | <ÊØQ & LOQ | <loq <loq< td=""><td>0.18 0.14 Av: 0.16</td><td></td></loq<></loq | 0.18 0.14 Av: 0.16 | |
| Ê | | | | | | | 9 9.217 | <loq <loq< td=""><td><loq <loq< td=""><td>0.29 0.28 Av: 0.28</td><td></td></loq<></loq </td></loq<></loq | <loq <loq< td=""><td>0.29 0.28 Av: 0.28</td><td></td></loq<></loq | 0.29 0.28 Av: 0.28 | |
| | | | 1 //// // // | | | P . | 0.166 0.142 | <loq <loq< td=""><td><loq <loq< td=""><td>0.23 0.20 Av: 0.21</td><td></td></loq<></loq </td></loq<></loq | <loq <loq< td=""><td>0.23 0.20 Av: 0.21</td><td></td></loq<></loq | 0.23 0.20 Av: 0.21 | |
| | | | | | # W W | 7 | 0.099 0.070 | 0.072 0.064 | <loq <loq< td=""><td>0.18 0.14 Av: 0.16</td><td></td></loq<></loq | 0.18 0.14 Av: 0.16 | |
| No. | | | | | | 14 | 0.074 0.085 | 0.121 0.161 | <loq <loq< td=""><td>0.21 0.26 Av: 0.23</td><td></td></loq<></loq | 0.21 0.26 Av: 0.23 | |
| | S S S | | | | | 21 | 0.106 0.062 | 0.322 0.262 | <loq <loq< td=""><td>0.44 0.33 Av: 0.39</td><td></td></loq<></loq | 0.44 0.33 Av: 0.39 | |
| Æ, | | | | | | | | Cont | inued oi | ı next po | ag _e |

Table 6.3.2.8-9 (cont'd): Total BYI 02960 Residue Data from Tomato after Two Foliar or a Soil Application(s) of BYI 02960 SL

| Application(s) of BYI 02960 SL | | | | | | | | | | | | |
|--------------------------------|---|-----------|--------------|-----------|-------------------------------------|----------------------------|------------------------------|---|---|--|--------|--|
| Trial Identification | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | Patal Rate Lb a.s∰A (kg ai/ha) a | Sampling interval (days) b | BYD 02960 Residue (mg/kg) | DFA Residue | DFEAFRESIDE | Total & YI 02960 Residue | | |
| RV114- 11DA | , CA, Region 10, 2011 | TRTDF | Quali T-27 | | 0.365 (0.409) | 28 | 0.079 0:096 | | , · | √ Av·≪ | ľ | |
| RV114- 11DA | , CA, Region 10, 2011 | TRTDS | Quali T-27 | Fruit | (0.411) | 40% | 0.029 | | <iqq< th=""><th>0.43 0.38 0.38 0.51 0.51 0.59 0.61</th><th>V Y</th></iqq<> | 0.43 0.38 0.38 0.51 0.51 0.59 0.61 | V Y | |
| | | | | | | 45,4 (45,4) (40,4) | 0.939 00033 | 0.549 0.562 | \$\frac{1}{2}\text{000}{2} | √ 0.59 → 0.61 Av: 0.60 | | |
| | * | | | 0 6 | | | 20,029 × × √2 2 | 9.560 9.583 | &LOQ ≯LOQ | 0.61 0.62 Av: 0.61 | | |
| | |) ~ | | Ĵ | 2 | 60 | 0.024 0.028 | 0.543 Ø.475 | <loq <loq< th=""><th>0.58 0.51 Av: 0.55</th><th></th></loq<></loq | 0.58 0.51 Av: 0.55 | | |
| £. | , Ø | | 9 4 | | 7 | IDAA1 | 9. 9 27 9.025 | 0.594 0.593 | <loq <loq< th=""><th>0.63 0.63 Av: 0.63</th><th></th></loq<></loq | 0.63 0.63 Av: 0.63 | | |
| RV115- 11DA | Region 10, 2011 | TRYDF | Quality 7 | Frait | 0 188 (0.210) | 1DAA1 | 0.052 0.072 | <loq <loq< th=""><th><loq <loq< th=""><th>0.11 0.13 Av: 0.12</th><th></th></loq<></loq </th></loq<></loq | <loq <loq< th=""><th>0.11 0.13 Av: 0.12</th><th></th></loq<></loq | 0.11 0.13 Av: 0.12 | | |
| . // | | | | | 0.971 (0.416) | 0 | 0.122 0.080 | <loq <loq< th=""><th><loq <loq< th=""><th>0.18 0.14 Av: 0.16</th><th></th></loq<></loq </th></loq<></loq | <loq <loq< th=""><th>0.18 0.14 Av: 0.16</th><th></th></loq<></loq | 0.18 0.14 Av: 0.16 | | |
| Y | | | Quality 7 | | | 1 | 0.116 0.101 | <loq <loq< th=""><th><loq <loq< th=""><th>0.18 0.16 Av: 0.17</th><th></th></loq<></loq </th></loq<></loq | <loq <loq< th=""><th>0.18 0.16 Av: 0.17</th><th></th></loq<></loq | 0.18 0.16 Av: 0.17 | | |
| , L | | | | | | 7 | 0.187 0.088 | <loq 0.067</loq | <loq <loq< th=""><th>0.25 0.16 Av: 0.21</th><th></th></loq<></loq | 0.25 0.16 Av: 0.21 | | |
| | | <u> </u> | | | 1 | | | 1 | | 1 | 1 | |

Continued on next page...

Table 6.3.2.8-9 (cont'd): Total BYI 02960 Residue Data from Tomato after Two Foliar or a Soil Application(s) of BYI 02960 SL

| | | 11 | ication(s) o | | | | | | | | |
|----------------------|---|-----------|--|-----------|-----------------------------------|---|--|---|---|---|---|
| Trial Identification | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | ©gal Rate Lb a.s∰ (kg ai/ha) ª | Sampling interval (days) ^b | BYO 02960 Residik (mg/kg) | 0.00 DFA Residite 0.00 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | DFEMEResidue (mg a.s. equiv./kg) | Total WY1 02960 Residue A C C C C C C C C C C C C C C C C C C C | |
| RV115- 11DA | , CA, Region 10, 2011 | TRTDF | Quality 27 | Fruit (| 0.371 (0.416) | 14 | 0.1947 0×1000 | 0.0 0 7 9,077 | | 0.19 √0.19 ≪ √ Av: [≪] 0.49 | |
| | | | | | 0.371 (0.416) | 219 | 0.148 0.127 | 0.150 00.26 0.430 6.160 | <iøq &LOQ ∦</iøq | 0.29 0.26 0.29 0.29 | Ĉ |
| | | | | | | 28y 28y 28y 40 | 0.997 00064 | 0.430 @160 | STOO | √ 9.26 → 0.23 Av: 0.25 | |
| RV115- 11DA | A | TRTDS | Obality 27 | 0 6 | 01 / | V 1 | × | | FLOQ LOQ | 0.10 0.11 Av: 0.10 | |
| | | | | | | 45 | <iøq <iøq \$LOQ</iøq </iøq | 0.059 Ø.073 | <loq <loq< th=""><th>0.08 0.09 Av: 0.09</th><th></th></loq<></loq | 0.08 0.09 Av: 0.09 | |
| \$ | | | | | 7 B F | \$90 \$\int_{\inttileftinteta\int_{\int_{\inttileftittalleftileftinteta\int_{\inttileftileftileftileftileftileftileftile | ≨ľ⁄ÓQ ≽LOQ | 0.085 0.082 | <loq <loq< th=""><th>0.11 0.10 Av: 0.10</th><th></th></loq<></loq | 0.11 0.10 Av: 0.10 | |
| | | | | | % | 6 0 | <loq <loq< th=""><th>0.078 0.095</th><th><loq <loq< th=""><th>0.10 0.12 Av: 0.11</th><th></th></loq<></loq </th></loq<></loq | 0.078 0.095 | <loq <loq< th=""><th>0.10 0.12 Av: 0.11</th><th></th></loq<></loq | 0.10 0.12 Av: 0.11 | |
| | | | \$ 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | | 7 V | 70 | <loq <loq< th=""><th><loq <loq< th=""><th><loq <loq< th=""><th>0.07 0.07 Av: 0.07</th><th></th></loq<></loq </th></loq<></loq </th></loq<></loq | <loq <loq< th=""><th><loq <loq< th=""><th>0.07 0.07 Av: 0.07</th><th></th></loq<></loq </th></loq<></loq | <loq <loq< th=""><th>0.07 0.07 Av: 0.07</th><th></th></loq<></loq | 0.07 0.07 Av: 0.07 | |
| RVf\6- 11DA | , CA, Region 10, 2011 | TOTOF. | SUN 6366 | E wit | 0.183 (0.205) | 1DAA1 | 0.180 0.205 | <loq <loq< th=""><th><loq <loq< th=""><th>0.24 0.27 Av:</th><th></th></loq<></loq </th></loq<></loq | <loq <loq< th=""><th>0.24 0.27 Av:</th><th></th></loq<></loq | 0.24 0.27 Av: | |
| Ž, | , CA, Region 10, 2011 | | <u> </u> | | 0.367 (0.412) | 0 | 0.438 0.683 | <loq 0.055</loq | <loq <loq< th=""><th>0.25 0.50 0.75 Av: 0.62</th><th></th></loq<></loq | 0.25 0.50 0.75 Av: 0.62 | |
| | | 4 N | | 1 | l | | <u>I</u> | <u>I</u> | | 0.02 | J |

Table 6.3.2.8-9 (cont'd): Total BYI 02960 Residue Data from Tomato after Two Foliar or a Soil Application(s) of BYI 02960 SL

| | | Appi | ication(s) o | IBYIU | 2960 SL | | | | | | 0 |
|----------------------|---|-----------|--------------|-----------|-------------------------------------|--------------------------|------------------------------|--|-------------------------------------|----------------------------------|-----|
| Trial Identification | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | Potal Rate Lb a.s∰A (kg ai/ha) ª | Sampling interval (days) | BYD 02960 Residue (mg/kg) | DFA Residue | DFEMEResidue (mg a.s. equiv./kg) | Total W. 1,02960 Residue | |
| RV116- 11DA | , CA, Region 10, 2011 | TRTDF | SUN 6366 | Fruit | 7 0.367 (0.412) | 1 ' | 0.276 | <l@00 \$LOQ \$\frac{1}{2}</l@00 | <ioq 0.013</ioq | 0.34 ∠0.50 ≪ Av: √ 0.42 | |
| | | | | | 0.367 | 72 | 0.882 0.575 0.575 | 0.157 0.738 0.571 0.571 | 0.920 | 0.73 0.73 Av 0.90 | |
| | | 2 | | | | | 10326 10326 | 6205 | 0.013 % | 90.54 Av: 0.86 | |
| | * | | | | Yor i | 217 | 0.463 0.301 « | 0.295 9.227 0.309 0.309 | 0.018 0.013 | 0.78 0.54 Av: 0.66 | |
| | | | | | | 28 | 0.933 | 0.309 Ø.595 | 0.019 0.017 | 0.86 0.82 Av: 0.84 | |
| | CA, Region 10, 2011 | | | | | | | Cont | inued or | next pa | ige |

Table 6.3.2.8-9 (cont'd): Total BYI 02960 Residue Data from Tomato after Two Foliar or a Soil Application(s) of BYI 02960 SL

| | | 11 | | | | | | | | | 0 |
|----------------------|---|------------|------------------------------------|---------------|--------------------------------------|--|------------------------------|----------------------------------|--|--------------------------------|-----|
| Trial Identification | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | Patal Rate Lb a.s.A. (kg ai/ha) a | Sampling interval (days) ^b | BYD 02960 Residue (mg/kg) | DFA Residue | DFERRESidue (mg a.s. equiv./kg) | Total BY 1.02960 Residue | |
| RV116- | , CA, | TRTDS | SUN 6366 | Fruit | 70.366 (0.410) | 40 | 0.176 | 0.400 | 0.611 | 0.69 | |
| 11DA | Region 10, 2011 | | | \(\lambda_1\) | (0.410) | Ď | 0.176 0.234 | 0,848 2 | \$roo | ⊘'l.l ∾ √ Av [.] ∜ | 7 |
| | | | | O, | | | | r ô | , Y | 0.29 | e ° |
| | | | <i>↓</i> | \ | | 45Q | 0.115 | 0.683 | <løq< th=""><th>981</th><th>O</th></løq<> | 9 81 | O |
| | | | | | 0.366 (0.410) | 45% | 0.115 0.357 | 0.683 .0015 0.623 0.523 | 20.010 \$\frac{1}{2} | 1.1 ⁿ Av | 7 |
| | | | \$\tag{\alpha}{\alpha}\tag{\alpha} | * | | 50 ₇ | 0.986 | 0,923 | <\$OO | √ .7.0 | - |
| | | | Q' | Ö | ð | (Ö) | _ @ 0275 | 5.53 | Ø.016° | 1.8 | |
| | | | | <i>\@</i> | | 60 | | P & | | Av: | |
| | | | | № .r | | | | ∘1 <i>9</i> 3 | ₽ 017 | 2.0 | - |
| | | | | | L | ~^ | W/184 | 1.93 1.46 | 0.021 | 1.7 | |
| | | <i>(</i> = | | | | 70 | \ \(\lambda_{n}\) | Y . 8 | © 8,017 © 0.021 | Av: | |
| | | | | -\$ | | | 0. P 05 | 1.13 | 0.012 | 1.9 1.2 | - |
| | | | F Z | | . 0 | | 0.103 | @1.48 | 0.012 | 1.6 | |
| | | \ \ | | | | | | * | | Av: | |
| | | | | r L | | | L., | | | 1.4 |] |

- Total Rate for the 1DAA1 sample is the rate following the first application only. In plots with two applications, the Total Rate is the sum of the two application rates Application rates were rounded to three significant figures following calculations.
- Pre-Harvest Interval (PHI) is the interval between last application and sample harvest date. 1DAA1 is one day after the
- first application.

 Total BYI 02960 residue the sup of BYD 02960 DFA, and DFEAF residue in parent equivalents. Residue measurements below the analyte LOQ were summed into the total BYI 02960 residue value as the analyte LOQ value. These totals represent the upper limit of what the residue level might be.
- Maximum residue found in tomaton 1DAN PHI
- Highes average field trial (HAFR) residue found tomato at 1DAA1 PHI.
- Maximum residue found in tomato at day PHA
- Highest average field trial JAFT residue found in mato at 1 day PHI.
- Maximum residue found in tomato at 45 day PHI following soil drench application.
- Highest average field trial (HACT) residue found in tomato at 45 day PHI following soil drench application.

 Highest average field trial (HACT) residue found in tomato at 45 day PHI following soil drench application.

Table 6.3.2.8-10: Total BYI 02960 Residue Data from Bell Pepper after Two Foliar or a Single Soil Application(s) of BYI 02960 SL

| | FF | (-) | 01 11 102 | | | | | | | 0 |
|----------------------|---|-----------|--------------|-----------|---|---------------------------------|--------------------------------|---|---|-------------------------------|
| Trial Identification | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | Total Rate Lb a.s./A (kg a.s./ha) ^a | Sampling interval | . BVI 02960 Residue (mg/kg) | De Residue (mg & gquiv./kg) | BPP AFResidae (mg a A equiv./kg) | Tokar Byl 02940 Residing |
| RV117- 11DA | , GA, Region 2, 2011 | TRTDF | Aristotle | Front | 0.365 | | 0.0914 0.123 | <lqq< td=""><td><lqq <kqq >~y</kqq </lqq </td><td>0 18 0 18 Av: 0.17 •</td></lqq<> | <lqq <kqq >~y</kqq </lqq | 0 18 0 18 Av: 0.17 • |
| | | | | | | | 0.083 | <loq< td=""><td>V .</td><td></td></loq<> | V . | |
| | \$ | | | | 0" | | 0.082 0.066 0.038 | | <ĽOQ ≰∠LOQ | 0.14 0.13 Av: 0.13 |
| | | | | | | | 0.052 0.052 2 0.042 | 0.132 | <loq <loq< td=""><td>0.12 0.14 Av: 0.13</td></loq<></loq | 0.12 0.14 Av: 0.13 |
| | | | | | | ©11 ©21 ©21 ©21 ©21 | 0.033 | 0.130 | <loq <loq< td=""><td>0.17 Av: 0.18 0.14</td></loq<></loq | 0.17 Av: 0.18 0.14 |
| | | | | | | X | 0.024 | 0.120 ontinuea | <loq l="" next<="" on="" td=""><td>0.15 Av: 0.15</td></loq> | 0.15 Av: 0.15 |
| £ L n | | | | | 9 | | | | | |
| 4 | | | | | | | | | | |
| | | | | | | | | | | |
| | <i>V</i> | | | | | | | | | |

Table 6.3.2.8-10 (cont'd): Total BYI 02960 Residue Data from Bell Pepper after Two Foliar or a Single Soil Application(s) of BYI 02960 SL

| | | | он Арриса | (3) | | | | | | 0 |
|----------------------|---|-----------|--------------|-----------|--------------------|-------------------|--|--|---|-----------------------------|
| Trial Identification | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | | Sampling interval | BYI 02960 Residue (mg/kg) | DEA Residue (mg Residue) | BPEAFRESHIRE (mg #: Reguiv./kg) | Tokk BY1 02960 Residue |
| RV117- 11DA | , GA, Region 2, 2011 | TRIDS | Aristotle | Frant | 0.366 | 40 Q | ∠LQQ <lqq< th=""><th>0.063</th><th><lqq <kgq< th=""><th>0.12 Av: 0.10 o</th></kgq<></lqq </th></lqq<> | 0.063 | <lqq <kgq< th=""><th>0.12 Av: 0.10 o</th></kgq<></lqq | 0.12 Av: 0.10 o |
| | | | | | | ¥ 43 A | <loq <loq< th=""><th>0.096</th><th><l@0 <loq< th=""><th>0.12 0.10 Av: 0.11</th></loq<></l@0 </th></loq<></loq | 0.096 | <l@0 <loq< th=""><th>0.12 0.10 Av: 0.11</th></loq<></l@0 | 0.12 0.10 Av: 0.11 |
| | | | | | | 49% | <log< th=""><th>CLO© 0.063</th><th>0.0\2 ≈LOQ</th><th>0.07 0.08 Av: 0.08</th></log<> | CLO© 0.063 | 0.0\2 ≈LOQ | 0.07 0.08 Av: 0.08 |
| RV117- 11DA | , GA, Region 2, 2011 | TRTDS | Aristotle | Fruit | © 0.366 (0.410) | 59°7 | <lq0 <l00< th=""><th>0.067 0.085</th><th><loq <loq< th=""><th>0.09 0.11 Av: 0.10</th></loq<></loq </th></l00<></lq0 | 0.067 0.085 | <loq <loq< th=""><th>0.09 0.11 Av: 0.10</th></loq<></loq | 0.09 0.11 Av: 0.10 |
| | | | | | | 70 [©] | <loq <100Q</loq | 0.079 <loq< th=""><th><loq <loq< th=""><th>0.10 0.07 Av: 0.09</th></loq<></loq </th></loq<> | <loq <loq< th=""><th>0.10 0.07 Av: 0.09</th></loq<></loq | 0.10 0.07 Av: 0.09 |
| RV118- 11HA | FL, Region 3, 2011 | TRTDF | Aristotle | ruit \$ | 0.362 (0.405) | | 0.109 0.123 | <loq <loq< th=""><th><loq <loq< th=""><th>0.17 0.18 Av: 0.18</th></loq<></loq </th></loq<></loq | <loq <loq< th=""><th>0.17 0.18 Av: 0.18</th></loq<></loq | 0.17 0.18 Av: 0.18 |
| RV118- 11HA | Region, 2011 | TRTDS | Aristotle | Öfruit Ö | 0.366 (0.310) | 44 | 0.033 0.020 | 0.146 0.067 | <loq <loq< th=""><th>0.19 0.10 Av: 0.14</th></loq<></loq | 0.19 0.10 Av: 0.14 |
| | FL, Region 3, 2011 | | | | | | Co | ontinued | l on next | |

Table 6.3.2.8-10 (cont'd): Total BYI 02960 Residue Data from Bell Pepper after Two Foliar or a Single Soil Application(s) of BYI 02960 SL

| | | Siligic S | oil Applica | 111011(8) 01 | D11029 | 00 SL | | | | 0 | |
|----------------------|---|-----------|----------------------|--------------|---------------------------------------|-------------------|--|---|---|---------------------------------------|---|
| Trial Identification | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | Total Rac Lb a.s./A (kg a.s./ha) a | Sampling interval | BYI 02960 Residue (mg/kg) | DEA Residue (mgA&, equiv./kg) | BPLAFResidae (mg a Lequiv./kg) | Total BY1 02960 Residue | |
| RV119- 11DA | , NE, Region 5, 2011 | TRTDF | California Wonder | Front | 0.365 | | 90.0444 0.061 2 | Z-LOG - LOQ | <lqq <køq ≈ ≫</køq </lqq | 0 12 0 12 Av: 0.11 . | |
| | | | | | | | 0.030 | | <loq <loq< th=""><th>0.11 ° 0.12 0.11 Av: 0.11</th><th></th></loq<></loq | 0.11 ° 0.12 0.11 Av: 0.11 | |
| | | | ~ | | | | 0.024 | <loo< th=""><th><loq <loq <loq< th=""><th>0.08 0.08 Av: 0.08</th><th></th></loq<></loq </loq </th></loo<> | <loq <loq <loq< th=""><th>0.08 0.08 Av: 0.08</th><th></th></loq<></loq </loq | 0.08 0.08 Av: 0.08 | |
| | ~ ~ | | | | | 137 | 0.036 | | <loq <loq< th=""><th>0.10 0.10 Av: 0.10</th><th></th></loq<></loq | 0.10 0.10 Av: 0.10 | |
| | | | | | | 200 | 0.017/ | 0.098 0.084 | <loq <loq< th=""><th>0.13 0.11 Av: 0.12</th><th></th></loq<></loq | 0.13 0.11 Av: 0.12 | |
| | | | | | ~ | | 0.048 0.033 | 0.174 0.144 | <loq <loq< th=""><th>0.23 0.19 Av: 0.21</th><th></th></loq<></loq | 0.23 0.19 Av: 0.21 | |
| RV119- 11DA | Region 7, 2011 | | Calitornia Wonder | Fruit | 0.366 | 40 | <loq 0.012</loq | 0.107 0.076 | <loq <loq< th=""><th>0.13 0.10 Av: 0.11</th><th></th></loq<></loq | 0.13 0.10 Av: 0.11 | |
| é | | | | | | 44 | <loq <loq< th=""><th>0.112 0.097</th><th><loq <loq< th=""><th>0.13 0.12 Av: 0.13</th><th></th></loq<></loq </th></loq<></loq | 0.112 0.097 | <loq <loq< th=""><th>0.13 0.12 Av: 0.13</th><th></th></loq<></loq | 0.13 0.12 Av: 0.13 | |
| S | | | California Wonder | | | 48 | <loq 0.012</loq | 0.112 0.131 | <loq <loq< th=""><th>0.13 0.15 Av: 0.14</th><th></th></loq<></loq | 0.13 0.15 Av: 0.14 | |
| | | | | | | 59 | <loq 0.010</loq | 0.128 0.134 | <loq <loq< th=""><th>0.15 0.15 Av: 0.15</th><th></th></loq<></loq | 0.15 0.15 Av: 0.15 | |
| C C | | 9 | | | | 68 | <loq <loq< th=""><th>0.153 0.148</th><th><loq <loq< th=""><th>0.13 0.17 0.17 Av: 0.17</th><th></th></loq<></loq </th></loq<></loq | 0.153 0.148 | <loq <loq< th=""><th>0.13 0.17 0.17 Av: 0.17</th><th></th></loq<></loq | 0.13 0.17 0.17 Av: 0.17 | |
| | | | | l . | | L | <u> </u> | | <u> </u> | U.1/ | 1 |

Table 6.3.2.8-10 (cont'd): Total BYI 02960 Residue Data from Bell Pepper after Two Foliar or a Single Soil Application(s) of BYI 02960 SL

| | | _ | он түрнс | | 1 | | 1 | 1 | 1 | 0 |
|----------------------|---|-----------|--------------|-----------|--|-------------------|--|--|---|------------------------------|
| Trial Identification | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | Total Rate Lb a.s./A (kg a.s./ha) a | Sampling interval | BYI 02960 Residue (mg/kg) | De Residue (mg & equiv./kg) | BPLAFResidae (mg 4:2 equiv./kg) | Tokar BY1 02960 Residing |
| RV120- 11DA | IL, Region 5, 2011 | TRTDF | Better Bell | Front | 0.371 | | 0.1112 0.089 | Z-LOG - LOQ - LOQ | <lqq <kgq >> ></kgq </lqq | 0 7 Q 15 Av: 0.16 • |
| | | | | | | | 0.117 | <lo@ <lqq< th=""><th>1/ .</th><th>0.18 0.19 Av: 0.18</th></lqq<></lo@ | 1/ . | 0.18 0.19 Av: 0.18 |
| | | | · * * | | | | 0.094 0.0 8 5 | 0.085 | <lqq ALOQ</lqq | 0.19 0.19 Av: 0.19 |
| | ~ *\ | | | | | 147 | 0.035 | 0.169 0.220 | <loq <loq< th=""><th>0.21 0.28 Av: 0.25</th></loq<></loq | 0.21 0.28 Av: 0.25 |
| | | | | | | 210 | 0.032/ | 0.255 0.233 | <loq <loq< th=""><th>0.26 0.28 Av: 0.28</th></loq<></loq | 0.26 0.28 Av: 0.28 |
| RV120- 11DA | Fegion 5, 2011 | TRTDF | Better Bell | Fruit | (0.00,0) | 280 | <loq 0.018</loq | 0.201 0.296 | <loq <loq< th=""><th>0.22 0.33 Av: 0.27</th></loq<></loq | 0.22 0.33 Av: 0.27 |
| RV120- 11DA | IL, A | TRTDS | Better Bell | Fruit | 0.366 (0)10) | 41 | 0.033 0.037 | 0.253 0.192 | <loq <loq< th=""><th>0.30 0.24 Av: 0.27</th></loq<></loq | 0.30 0.24 Av: 0.27 |
| | | | | | | 45 | 0.041 0.028 | 0.251 0.343 | <loq <loq< th=""><th>0.30 0.38 Av: 0.34</th></loq<></loq | 0.30 0.38 Av: 0.34 |
| N | | | | | | 50 | 0.029 0.025 | 0.546 0.440 | <loq <loq< th=""><th>0.59 0.47 Av: 0.53</th></loq<></loq | 0.59 0.47 Av: 0.53 |
| | | | ~~~ | | | 59 | 0.012 0.017 | 0.328 0.294 | <loq <loq< th=""><th>0.35 0.32 Av: 0.34</th></loq<></loq | 0.35 0.32 Av: 0.34 |
| E, C | IL, Region 5, 2011 | | | | | 70 | 0.016 <loq< th=""><th>0.205 0.292</th><th><loq <loq< th=""><th>0.23 0.31 Av: 0.27</th></loq<></loq </th></loq<> | 0.205 0.292 | <loq <loq< th=""><th>0.23 0.31 Av: 0.27</th></loq<></loq | 0.23 0.31 Av: 0.27 |

Table 6.3.2.8-10 (cont'd): Total BYI 02960 Residue Data from Bell Pepper after Two Foliar or a Single Soil Application(s) of BYI 02960 SL

| | | 2111814 2 | он Арриса | | 2 11 027 | | | | | 0 | |
|----------------------|---|-----------|----------------------|--------------|------------------|-------------------|------------------------------------|---|--|------------------------------|--|
| Trial Identification | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | | Sampling interval | BYI 02960 Residue (mg/kg) | DEA Residue (mg & equiv./kg) | BPLAFResidae (mg a.k.equiv./kg) | Total BYI 02960 Residue | |
| RV121- 11HA | , Region 5, 2011 | TRTDF | California Wonder | Frank | 0.366 | | 0.0884 0.085 0.085 | Z-LOG - LOQ | <lqq ≤kØQ ≫</lqq | 0 5 0 15 Av: 0.15 • | |
| RV121- 11HA | , Region 5, 2011 | TRTDS | California Wonder | Forit | Ø.366 (0.410) | Q 45 | 0.011 | 0.07 <i>5</i> 0 0. 1 04 | | 0 0 0 0.13 Av: 0.11 | |
| RV122- 11DA | , WI, Region 5, 2011 | TRTDF | | Fruit | 0.367 (0.415) | | 0.028 | <lqq< td=""><td><løq ∛LØQ ∜</løq </td><td>0.09 0.08 Av: 0.08</td><td></td></lqq<> | <løq ∛LØQ ∜</løq | 0.09 0.08 Av: 0.08 | |
| | 4 | | | Druit | | | 0.045 | <lqq <køq< td=""><td><loq <loq< td=""><td>0.10 0.08 Av: 0.09</td><td></td></loq<></loq </td></køq<></lqq | <loq <loq< td=""><td>0.10 0.08 Av: 0.09</td><td></td></loq<></loq | 0.10 0.08 Av: 0.09 | |
| RV122- 11DA | Region 52011 | TRTD | California Worder | Pruit ? | 0.367 (0.491) | 7 ⁰ | 0.02 5 / 0. Ø /19 | 0.070 0.069 | <loq <loq< td=""><td>0.10 0.10 Av: 0.10</td><td></td></loq<></loq | 0.10 0.10 Av: 0.10 | |
| Å | | | | | | | 0.023 0.018 | 0.087 0.085 | <loq <loq< td=""><td>0.12 0.11 Av: 0.12</td><td></td></loq<></loq | 0.12 0.11 Av: 0.12 | |
| | | | | | | 21 | 0.012 0.020 | 0.103 0.073 | <loq <loq< td=""><td>0.13 0.10 Av: 0.11</td><td></td></loq<></loq | 0.13 0.10 Av: 0.11 | |
| £ | | | | | | 28 | 0.016 0.013 | 0.085 0.065 | <loq <loq< td=""><td>0.11 0.09 Av: 0.10</td><td></td></loq<></loq | 0.11 0.09 Av: 0.10 | |
| | | | S S | | | | Co | ontinuea | on next | page | |

Table 6.3.2.8-10 (cont'd): Total BYI 02960 Residue Data from Bell Pepper after Two Foliar or a Single Soil Application(s) of BYI 02960 SL

| | | _ | он түрнс | | 1 | | 1 | 1 | 1 | 0 |
|----------------------|---|---|----------------------|-----------|--|-------------------|--|---|--|-------------------------------------|
| Trial Identification | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | Total Rate Lb a.s./A (kg a.s./ha) a | Sampling interval | - BYI 02960C Residue (mg/kg) | DRA Residue (mgAs, equiv./kg) | BPLAFReshipe (mg 3:2, equiv./kg) | Tokk BY1 02960 Residive |
| RV122- 11DA | , WI, Region 5, 2011 | TRTDS | California Wonder | Front | 0.367 | 40 | | 0.084 | <lqq <kgq >> ></kgq </lqq | 0 12 0 12 Av: 0.11 • |
| | | | | | | Q 45 | 0.012 <l@0< th=""><th>0.0869 0.967</th><th>1/ .</th><th>0.09 0.09 Av: 0.10</th></l@0<> | 0.0869 0.967 | 1/ . | 0.09 0.09 Av: 0.10 |
| | | | · * * | | | 50% | <lo6< th=""><th>0.096</th><th><lqq ALOQ</lqq </th><th>0.12 0.14 Av: 0.13</th></lo6<> | 0.096 | <lqq ALOQ</lqq | 0.12 0.14 Av: 0.13 |
| | 7 | | | | | 60 7 2 7 | <lqq <lqq< th=""><th>0.131 0.416</th><th><loq <loq< th=""><th>0.15 0.14 Av: 0.14</th></loq<></loq </th></lqq<></lqq | 0.131 0.416 | <loq <loq< th=""><th>0.15 0.14 Av: 0.14</th></loq<></loq | 0.15 0.14 Av: 0.14 |
| | | | | | | 70 [©] | <loq <iqoq< th=""><th>0.110 0.107</th><th><loq <loq< th=""><th>0.13 0.13 Av: 0.13</th></loq<></loq </th></iqoq<></loq | 0.110 0.107 | <loq <loq< th=""><th>0.13 0.13 Av: 0.13</th></loq<></loq | 0.13 0.13 Av: 0.13 |
| RV123- 11DA | Manitoba, Region 5, 2011 | TRTDF | Unknown | Fruit & | 0.356 | | 0.365 0.215 | <loq <loq< th=""><th><loq <loq< th=""><th>0.13 0.43 0.28 Av: 0.35</th></loq<></loq </th></loq<></loq | <loq <loq< th=""><th>0.13 0.43 0.28 Av: 0.35</th></loq<></loq | 0.13 0.43 0.28 Av: 0.35 |
| RV123- 11DA | | · * * * * * * * * * * * * * * * * * * * | Unknown | Fruit | 0.356 | 1 | 0.199 0.340 | <loq <loq< th=""><th><loq <loq< th=""><th>0.26 0.40 Av: 0.33</th></loq<></loq </th></loq<></loq | <loq <loq< th=""><th>0.26 0.40 Av: 0.33</th></loq<></loq | 0.26 0.40 Av: 0.33 |
| | | | | | | 7 | 0.345 0.259 | 0.053 0.052 | 0.017 0.013 | 0.42 0.32 Av: 0.37 |
| Ŋ | | | | | | 13 | 0.148 0.168 | 0.078 0.066 | 0.013 0.012 | 0.24 0.25 Av: 0.24 |
| | | | Ş | | | 20 | 0.165 0.125 | 0.101 0.090 | 0.015 0.011 | 0.28 0.23 Av: 0.25 |
| E, S | Manitoba Region, 5 2011 | | | | | 28 | 0.115 0.095 | 0.113 0.118 | 0.013 <loq< th=""><th>0.24 0.22 Av: 0.23</th></loq<> | 0.24 0.22 Av: 0.23 |

Table 6.3.2.8-10 (cont'd): Total BYI 02960 Residue Data from Bell Pepper after Two Foliar or a Single Soil Application(s) of BYI 02960 SL

| 50 0.069 0.679 0.014 0.167 1.32 0.921 59 0.077 0.789 0.014 0.075 0.862 0.014 | S. C. Tokal'BYI 02960, Residing C. C. Magas. S. Capuiv. 1kg/C. |
|--|--|
| 5, 2011 45, 0.176, 1.490 0.030 0.180 1.27 0.034 50, 0.069 0.678 0.034 0.017 1.32 0.021 59, 0.07 0.789 0.014 0.075 0.852 0.014 | Av: |
| \$\frac{43}{0.180}\$\frac{1.49}{1.27}\$\frac{0.034}{0.034}\$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | 1.7 . |
| 50 0.069 0.678 0.014 0.167 1.32 0.021 59 0.077 0.789 0.014 0.075 0.852 0.014 | 10" V.6 Av: 1.6° |
| 59 0.07 0.789 0.014 0.075 0.852 0.014 | 0.76 1.6 Av: 1.2 |
| | 0.88 0.94 Av: 0.91 |
| 69 0.056 0.711 <loq 0.0046="" 0.610="" <loq<="" th=""><th>0.78 0.67 Av: 0.72</th></loq> | 0.78 0.67 Av: 0.72 |
| | 0.72 0.21 0.17 Av: 0.19 |
| 1 0.083 <loq 0.057="" <loq="" <loq<="" th=""><th>0.14 0.12 Av: 0.13</th></loq> | 0.14 0.12 Av: 0.13 |
| 7 0.061 <loq <loq="" <loq<="" th=""><th>0.13 0.12 0.12 Av: 0.12</th></loq> | 0.13 0.12 0.12 Av: 0.12 |
| 14 0.029 0.091 <loq <loq="" <loq<="" th=""><th>0.13 0.11 Av:</th></loq> | 0.13 0.11 Av: |
| 21 0.011 0.102 <loq 0.018 0.125 <loq< th=""><th>0.12 0.12 0.15 Av:</th></loq<></loq | 0.12 0.12 0.15 Av: |
| 1 0.083 < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LOQ < LO | 0.14 |

Table 6.3.2.8-10 (cont'd): Total BYI 02960 Residue Data from Bell Pepper after Two Foliar or a Single Soil Application(s) of BYI 02960 SL

| | | _ | | 1 | 1 | OOBL | 1 | 1 | 1 | 0 |
|----------------------|--|-----------|--------------|-----------|-------------------------------------|-----------------|--|--|---|-------------------------------|
| Trial Identification | Location (City, State, XT, Region, and Year) | Plot Name | Crop Variety | Commodity | Total Rafe Ub a.s./A (kg a.s./ha) a | Odalys b (days) | SBYI 02960C Residue (mg/kg) | Dr Residue (mg & quiv./kg) | BPEAFReshine (mg #: Requiv./kg) | Tokk BY1 02960 Residue |
| 11DA | 6, 2011 | TKIDS | Taurus (| Froit & | (0.400) | | | 0.3236 | <lqq <kgq ></kgq </lqq | 0.34 0.36 Av: 0.35 • |
| | | | | | | Q 45 | <loq <loq *** ****</loq </loq | 0.120 0.434 | <loq< th=""><th>0.15 0.15 Av: 0.15</th></loq<> | 0.15 0.15 Av: 0.15 |
| | | | ·* | | | 49% | <l00< th=""><th>0.10\$</th><th><loq <aloq< th=""><th>0.12 0.15 Av: 0.14</th></aloq<></loq </th></l00<> | 0.10\$ | <loq <aloq< th=""><th>0.12 0.15 Av: 0.14</th></aloq<></loq | 0.12 0.15 Av: 0.14 |
| | ~~ ~~ | | | | | 63 | <lqqq <lqqq< th=""><th>0.145 0.069</th><th><loq <loq< th=""><th>0.14 0.09 Av: 0.11</th></loq<></loq </th></lqqq<></lqqq | 0.145 0.069 | <loq <loq< th=""><th>0.14 0.09 Av: 0.11</th></loq<></loq | 0.14 0.09 Av: 0.11 |
| RV124- 11DA | , TX, Region 6, 2001 | | 7 Taurus | | 0.365 | 70° | <loq 100q<="" <="" q="" th=""><th>0.064 0.081</th><th><loq <loq< th=""><th>0.08 0.10 Av: 0.09</th></loq<></loq </th></loq> | 0.064 0.081 | <loq <loq< th=""><th>0.08 0.10 Av: 0.09</th></loq<></loq | 0.08 0.10 Av: 0.09 |
| RV125- 11DA | , ØA, Region 10, 2011 | TRTDF | Cyprus | Fruit | (0.00,0) | | 0.206 0.242 | 0.083 0.088 | <loq <loq< th=""><th>0.30 0.34 Av: 0.32</th></loq<></loq | 0.30 0.34 Av: 0.32 |
| | | | | | | 1 | 0.180 0.243 | <loq <loq< th=""><th><loq <loq< th=""><th>0.24 0.30 Av: 0.27</th></loq<></loq </th></loq<></loq | <loq <loq< th=""><th>0.24 0.30 Av: 0.27</th></loq<></loq | 0.24 0.30 Av: 0.27 |
| £ | | | | | | 7 | 0.323 0.261 | <loq <loq< th=""><th>0.021 0.015</th><th>0.39 0.33 Av: 0.36</th></loq<></loq | 0.021 0.015 | 0.39 0.33 Av: 0.36 |
| Ŋ | | | | | | 14 | 0.121 0.120 | <loq <loq< th=""><th>0.010 <loq< th=""><th>0.18 0.18 Av: 0.18</th></loq<></th></loq<></loq | 0.010 <loq< th=""><th>0.18 0.18 Av: 0.18</th></loq<> | 0.18 0.18 Av: 0.18 |
| | | | Ą | | | 21 | 0.117 0.138 | 0.084 0.264 | 0.013 0.015 | 0.21 0.41 Av: 0.32 |
| L. C | | | | | | 28 | 0.096 0.112 | 0.332 0.344 | 0.010 0.013 | 0.44 0.47 Av: 0.45 |

Table 6.3.2.8-10 (cont'd): Total BYI 02960 Residue Data from Bell Pepper after Two Foliar or a Single Soil Application(s) of BYI 02960 SL

| | | | · rr | , | , | | | | | 0 |
|---|---|-----------|--------------|-----------|------------------|-------------------|--|--|---|---|
| Trial Identification | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | | Sampling interval | BYI 02960 Residue (mg/kg) | DFA Residue (mg/Res, equiv./kg) | BPEAFRESHIRE (mg #2.equiv./kg) | Total BY 102960, Residing and Second |
| RV125- 11DA | , CA, Region 10, 2011 | TRTDS | Cyprus | Fanit | 0.351 | 40 | 90.0114 <lqq< th=""><th>0.127 0.136</th><th><lqq <kgq ≈y L</kgq </lqq </th><th>0.15 0.15</th></lqq<> | 0.127 0.136 | <lqq <kgq ≈y L</kgq </lqq | 0.15 0.15 |
| | | | | | | 45 | <loq 0,0Q</loq | 0.108 0.135 | <loq< th=""><th>0.3 0.16 Av: 0.14</th></loq<> | 0.3 0.16 Av: 0.14 |
| DVIIOS | | S S | | | 6 | O'Y | | | 1 | 0.14 0.09 Av: 0.12 |
| RV125- 11DA | , CA, Region 10, 2011 | TRTDS | Cyprus C | Fruit | 0.351 (0.394) | D" 🧏 | <lqq< th=""><th>0.065</th><th><loq <loq< th=""><th>0.09 0.10 Av: 0.09</th></loq<></loq </th></lqq<> | 0.065 | <loq <loq< th=""><th>0.09 0.10 Av: 0.09</th></loq<></loq | 0.09 0.10 Av: 0.09 |
| | | | | | | 70 [©] | <loq 100="" <="" q="" q<="" th=""><th>0.086 0.086</th><th><loq <loq< th=""><th>0.10 0.10 Av: 0.10</th></loq<></loq </th></loq> | 0.086 0.086 | <loq <loq< th=""><th>0.10 0.10 Av: 0.10</th></loq<></loq | 0.10 0.10 Av: 0.10 |
| RV126- 11DA | I* | `~\" . 1 | Red | Fruit & | | | 0.553 0.481 | <loq <loq< th=""><th><loq <loq< th=""><th>0.61 0.54 Av: 0.58</th></loq<></loq </th></loq<></loq | <loq <loq< th=""><th>0.61 0.54 Av: 0.58</th></loq<></loq | 0.61 0.54 Av: 0.58 |
| RV126- 11DA | Region (5), 2014 | TRTDE | Red X | Fruit | 0.367 (0)12) | 1 | 0.546 0.402 | <loq <loq< th=""><th><loq <loq< th=""><th>0.61^f 0.46 Av: 0.53^g</th></loq<></loq </th></loq<></loq | <loq <loq< th=""><th>0.61^f 0.46 Av: 0.53^g</th></loq<></loq | 0.61 ^f 0.46 Av: 0.53 ^g |
| £ 1 | | | | | | 7 | 0.291 0.333 | <loq <loq< th=""><th>0.011 0.012</th><th>0.35 0.40 Av: 0.37</th></loq<></loq | 0.011 0.012 | 0.35 0.40 Av: 0.37 |
| N. C. C. C. C. C. C. C. C. C. C. C. C. C. | | | | | | 14 | 0.348 0.240 | 0.085 0.085 | 0.017 0.013 | 0.45 0.34 Av: 0.39 |
| 7. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. 2. | | | Q | | | 21 | 0.237 0.183 | 0.258 0.198 | 0.018 0.015 | 0.51 0.40 Av: 0.46 |
| E, C | Region 60, 201A | | | | | 28 | 0.051 0.069 | 0.317 0.256 | <loq <loq< td=""><td>0.38 0.34 Av: 0.36</td></loq<></loq | 0.38 0.34 Av: 0.36 |

Total BYI 02960 Residue Data from Bell Pepper after Two Foliar or a Table 6.3.2.8-10 (cont'd): Single Soil Application(s) of BYI 02960 SL

| | | | | | | | | | | 0 |
|----------------------|---|-----------|--------------|-----------|---|--|---|---|--|-------------------------------------|
| Trial Identification | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | Total Rate Lb a.s./A (kg a.s./ha) ^a | Sampling interval | 3YI 02960 Residue (mg/kg) | De Residue (mgaa, equiv./kg) | BPLAFReshine (mg #: Acquiv./kg) | Total BYI 02960 Residue |
| RV126- | , CA, | TRTDS | Red | Froit | 0.358 | , 40 _@ | &LOQ(| _r\o | <lqq< th=""><th>0.5</th></lqq<> | 0.5 |
| 11DA | Region 10, 2011 | | | u m | (0.402) | | <lqq< th=""><th>< LOQ</th><th><lqq <kqq **/</kqq </lqq </th><th>%07 %Av:</th></lqq<> | < LOQ | <lqq <kqq **/</kqq </lqq | % 07 % Av: |
| | | | | | (0.402) | 40 | | | .1 | 0.07 a |
| | | | A | . 6 | | Q 45 , | <loq< th=""><th><lo®< th=""><th><lqq< th=""><th>0,07</th></lqq<></th></lo®<></th></loq<> | <lo®< th=""><th><lqq< th=""><th>0,07</th></lqq<></th></lo®<> | <lqq< th=""><th>0,07</th></lqq<> | 0,07 |
| | | | | | | | <loq <loq< th=""><th>0.269</th><th><löq< th=""><th>Q:09</th></löq<></th></loq<></loq | 0.269 | <löq< th=""><th>Q:09</th></löq<> | Q :09 |
| | | | | Frait | | \O' | | <lo© 0.969</lo© | <lqq <loq< th=""><th>0.07 0.09 0.09 Av: 0.08</th></loq<></lqq | 0.07 0.09 0.09 Av: 0.08 |
| RV126- | , CA, | TRTDS | Red® | For it | 0.358 | 50% | <l00< th=""><th>0.066</th><th></th><th>0.08</th></l00<> | 0.066 | | 0.08 |
| 11DA | Region 10, 2011 | - Ribs | y reas | | (0.402) | 50% | <l00< th=""><th>0.060 <1.00 0</th><th><<u>L</u>QQ *LOQ</th><th>0.07</th></l00<> | 0.060 <1.00 0 | < <u>L</u> QQ *LOQ | 0.07 |
| | 8, | | | | · "W | DY | | | | Av: |
| | | | 7 | | * | $\mathbb{Q}^{\mathbb{V}}$ | b . | \sim |)" | 0.08 |
| | l d | h O | | | 1/ii/ · | 60 | <lq@< th=""><th><l@q <køq< th=""><th><loq< th=""><th>0.07</th></loq<></th></køq<></l@q </th></lq@<> | <l@q <køq< th=""><th><loq< th=""><th>0.07</th></loq<></th></køq<></l@q | <loq< th=""><th>0.07</th></loq<> | 0.07 |
| | | .4 | ا کي م | | | \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ | < L OQQ | < NO C | <loq< th=""><th>0.07 Av:</th></loq<> | 0.07 Av: |
| | | | | | | Y | , °× | (O))' | | 0.07 |
| | | | | \$ 2 | V a. | 70 [©] | <loq< th=""><th>0.072</th><th><loq< th=""><th>0.09</th></loq<></th></loq<> | 0.072 | <loq< th=""><th>0.09</th></loq<> | 0.09 |
| | | | V , | , , | | 4 | <100Q <100Q | <loq< th=""><th><loq< th=""><th>0.07</th></loq<></th></loq<> | <loq< th=""><th>0.07</th></loq<> | 0.07 |
| | | \$ | | | | | | | | Av: |
| | | | | | ð á | A " | | | | 0.08 |

- In plots with two applications, Total Cate is the sum of the two application rates. The Total Rate was rounded to three significant figures following calculations.
- Pre-Warvest Interval (PW) is the interval between last application and sample harvest date.
- Total BYI 02960 residue is the sum of BYI 02960, DEA, and INFEAF residue in parent equivalents. Residue measurements below the analyte Low were summed into the otal BYL 02960 residue value as the analyte LOQ value. These totals represent the upper wiit of what the residue levels might be.
- Maximum residue found in bell pepper at 45 das PHI following soil drench application.
- Highest average field trial (NAFT) revidue found in hell pepperat 45 day PHI following soil drench application.

 Maximum residue found in bell papper at 1 day PHI.

 Highest average field rial (HAFT) residue found in bell papper at 1 day PHI.

Total BYI 02960 Residue Data from Non-Bell (Chili) Pepper after Two Foliar or a Table 6.3.2.8-11: Single Soil Application(s) of BYI 02960 SL

| | | | F (- | 5) 01 11 11 0 | | | | | | | , |
|----------------------|---|-----------|-------------------|---------------|--|-------------------|------------------------------|--|--|---|---|
| Trial Identification | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | Total Rate Lb a.s./A (kg ai.s./ha) ^a | Sampling interval | BYI 02960 Residue (mg/kg) | DFA Residue (mga.s. equiv./kg) | DEEAFRESIGUE (mg'ecs. equivalleg) | Heral BYI Welgo Residuic (mg a Requiv. Mc) | |
| RV127- 11DA | , IA, Region 5, 2011 | TRTDF | Early Jalapeno | Fr@t | (0.416) | | 9.084 0.187 | ELOQ LQQ | ~LOQ | 0.14,7 0.Q5 | 0 |
| | | | | | | | 0.095 0.078 | <loq <loq< th=""><th><loq< th=""><th>0, 16 0.14 0Av: 0.15</th><th></th></loq<></th></loq<></loq | <loq< th=""><th>0, 16 0.14 0Av: 0.15</th><th></th></loq<> | 0, 16 0.14 0Av: 0.15 | |
| | 0. | | | | | 7,0 | 0.00 | 0.0 § 3 0.0 § 3 0.57 | <l@q &LOQ O</l@q | 0.12 0.15 Av: 0.13 | |
| | | | | | | \$14 0 | 0.424 0.118 | | <loq <loq< th=""><th>0.28 0.22 Av: 0.25</th><th></th></loq<></loq | 0.28 0.22 Av: 0.25 | |
| | | | | . ~ | | | 0.905 0.085 | 0.246 0.255 | <loq <loq< th=""><th>0.36 0.35 Av: 0.36</th><th></th></loq<></loq | 0.36 0.35 Av: 0.36 | |
| RV127- | | | | | | 39 | 0.059 0.071 0.023 | 0.343 0.305 | <l0q <l0q< th=""><th>0.41 0.39 Av: 0.40 0.30</th><th>_</th></l0q<></l0q | 0.41 0.39 Av: 0.40 0.30 | _ |
| 1104 | , 1 | T DS | | Fredr | (0.408) | 45 | 0.023 | 0.268 0.156 0.361 | <loq <loq< th=""><th>0.30 0.19 Av: 0.24 0.40</th><th></th></loq<></loq | 0.30 0.19 Av: 0.24 0.40 | |
| 4 | | | | | | 13 | 0.021 | 0.459 | <loq< th=""><th>0.49 d Av: 0.44 e</th><th></th></loq<> | 0.49 d Av: 0.44 e | |
| | Region 5, 2011 | | | | | | | Continue | ed on nes | xt page. | |

Table 6.3.2.8-11 (cont'd): Total BYI 02960 Residue Data from Non-Bell (Chili) Pepper after Two Foliar or a Single Soil Application(s) of BYI 02960 SL

| | | | , | rr · | , | | | | | 0 |
|----------------------|---|---------------|-------------------|----------------|---|---------------------------|--|--|---|--|
| Trial Identification | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | Total Ree Lb a.s./A (kg ai.s./ha) ^a | Sampling interval (dos) b | BYI 02960 Residue (mg/kg) | DFA Residue (mgas. equiv./kg) | DEEAFREGURE (mg no. equiv./kg) | Total BYI Ozoko Residuk (mg a Sequiv. Kg) |
| RV127- 11DA | , IA, Region 5, 2011 | TRTDS | Early Jalapeno | Fraîrit" | 0.364 | | 0.019 | 0.445 | <pre></pre> | 0.47 0.49 Av: 0.48 |
| | | | | | | 760 70 % | 0.023 <loq 0.021</loq | 0.661 0.300 0.804 | <loo <loo <loo </loo <th>0.60 22 Av: 0.51 0.83</th></loo </loo | 0.60 22 Av: 0.51 0.83 |
| RV128- | , TX, | TRTDF | | Died | @0 373 ° | 70 70 | 0.811 | 0.801 | 0.046 | 0.98 Av: 0.91 0.94 |
| 11HA RV128- | Ž Ž | TRTD S | Ö Ö V "MÜ | Pruit Dried | (1) 371 | 43 | 0.80 | 0.089 0. ¥0 0 0.981 | 0.045 | 1.0 Av: 0.99 |
| 11HA RV128- | Region 2011 | VIRTOR | | Fruit | (0.445) (0.373° | | 0.164 | 1.00 <loq< th=""><th>0.019</th><th>1.2 Av: 1.2 0.42</th></loq<> | 0.019 | 1.2 Av: 1.2 0.42 |
| 11HA | Region 8, 2011 | TRTDF | | | | | | <loq< th=""><th><loq< th=""><th>0.44 Av: 0.43</th></loq<></th></loq<> | <loq< th=""><th>0.44 Av: 0.43</th></loq<> | 0.44 Av: 0.43 |
| RV128- 11HA | Regions, 2011 | ~ ^ | | Fruit | (0. 0 5) | 43 | 0.048 0.046 | 0.303 0.325 | <loq <loq< th=""><th>0.36 0.38 Av: 0.37</th></loq<></loq | 0.36 0.38 Av: 0.37 |
| RV129- 11HA | Region 11, 2011 | TRID | Jalapenos | | (0.422) | 1 | 0.439 0.843 | 0.172 0.162 | 0.014 0.030 | 0.63 1.0 Av: 0.83 |
| RV139- 11HA | , ID, Regind | | Jalapenos | Dried Fruit | 0.374 (0.419) | 44 | <loq <loq< th=""><th>1.14 1.06</th><th><loq <loq< th=""><th>1.2 1.1 Av: 1.1</th></loq<></loq </th></loq<></loq | 1.14 1.06 | <loq <loq< th=""><th>1.2 1.1 Av: 1.1</th></loq<></loq | 1.2 1.1 Av: 1.1 |
| RV129- 11HA | | TRIDE | Jalapenos | Fruit | 0.376 (0.422) | 1 | 0.083 0.063 | <loq <loq< th=""><th><loq <loq< th=""><th>0.14 0.12 Av: 0.13</th></loq<></loq </th></loq<></loq | <loq <loq< th=""><th>0.14 0.12 Av: 0.13</th></loq<></loq | 0.14 0.12 Av: 0.13 |
| RV 29- 11HA | , ID, Region 11, 2011 | TRTDS | Jalapenos | Fruit | 0.374 (0.419) | 44 | <loq <loq< th=""><th>0.174 0.143</th><th><loq <loq< th=""><th>0.19 0.16 Av: 0.18</th></loq<></loq </th></loq<></loq | 0.174 0.143 | <loq <loq< th=""><th>0.19 0.16 Av: 0.18</th></loq<></loq | 0.19 0.16 Av: 0.18 |

Table 6.3.2.8-11 (cont'd): Total BYI 02960 Residue Data from Non-Bell (Chili) Pepper after Two Foliar or a Single Soil Application(s) of BYI 02960 SL

| | | 1 Onar o | i a single | Son Appin | oution(5) | OLDII | 02700 | OL. | | 0 | _ |
|----------------------|--|-----------|--------------|-----------|--------------------|-------------------|--|--|---|--|---|
| Lrial Identification | Location (City, State, Region, and Year) | Flot Name | Crop Variety | Commodity | 0.370 | Sampling interval | BYI 02%60 5 29 Residue (mg/kg) | Property Bra Residue (mgas, equiv./kg) | | Para BYI Ozogo Res mg a. Sequiv. Kg | |
| IIDA | Region 10, 2011 | | Chili | | (0.415) | Q 1 | 0.369, | LING | | %V: | |
| | | | .4 | | Ö, | (D) 1 | 0.481 | | 0 | 1 1 1 2 | - |
| | | | | | | | 0.481 0.57© | <lqq< td=""><td>0.012</td><td>0.50 0.54 0.64^f 0.59^g</td><td></td></lqq<> | 0.012 | 0.50 0.54 0.64 ^f 0.59 ^g | |
| | | | \$ 0° | | *** | 7 7 | 0.233 | 0.056 | 0.01 | 0.30 | |
| | | | | | | 7 7 | 0.17 | 0.056 <løq< td=""><td>0.644</td><td>0.23 Av:</td><td></td></løq<> | 0.644 | 0.23 Av: | |
| | | | | | 4 | | Ö. | 1 , | \forall | 0.27 | |
| | | | 4 2 C | | 107 | 14 14 | 0.220 0.235 | 0.139 | 0.031 0.039 | 0.39 0.58 | |
| | * | | | | | | U.200 | 0.304 | 0.039 | Av: | |
| | | (// | (62) | | 2 11 | \circ | 0.126 | 1 % | 0.040 | 0.49 | |
| | | | | | | 21 | 0.139 | 0.674 | 0.040 0.046 | 0.85 0.58 | |
| | | 4 | \$. | | S, | | 0.12/2 | | | Av: | |
| | | O | | | | 28. C | 0.138 | 0.297 | 0.036 | 0.72 0.47 | |
| | | | | | | | 0.086 | 0.383 | 0.033 | 0.50 | |
| | ÇA, | . 5 | | Fruit | | O | | | | Av: 0.49 | |
| RV130- | ÇCA, | TRTD | | Fruit | √ 0.365 | 40 | <loq< td=""><td>0.263</td><td><loq< td=""><td>0.28</td><td></td></loq<></td></loq<> | 0.263 | <loq< td=""><td>0.28</td><td></td></loq<> | 0.28 | |
| 11DA | Region 30, 2011 | | Chili , | | (0.365) (0.409) | | <loq< td=""><td>0.366</td><td><loq< td=""><td>0.39 Av:</td><td></td></loq<></td></loq<> | 0.366 | <loq< td=""><td>0.39 Av:</td><td></td></loq<> | 0.39 Av: | |
| | | TRTDS | | | O ^x | | | | | 0.33 | |
| | S & | | Q. | | ř | 44 | <loq< td=""><td>0.389</td><td><loq< td=""><td>0.41</td><td></td></loq<></td></loq<> | 0.389 | <loq< td=""><td>0.41</td><td></td></loq<> | 0.41 | |
| á | | Q, | l V | | | | <loq< td=""><td>0.358</td><td><loq< td=""><td>0.38 Av:</td><td></td></loq<></td></loq<> | 0.358 | <loq< td=""><td>0.38 Av:</td><td></td></loq<> | 0.38 Av: | |
| | | 4.0 | | | | | | | | 0.39 | |
| | Ô | | ~ 4 | | | 49 | <loq <loq< td=""><td>0.437 0.533</td><td><loq <loq< td=""><td>0.46 0.55</td><td></td></loq<></loq </td></loq<></loq | 0.437 0.533 | <loq <loq< td=""><td>0.46 0.55</td><td></td></loq<></loq | 0.46 0.55 | |
| | | | Ç Q | | | | Log | 0.555 | Log | Av: | |
| | | | | | | | | | | 0.51 |] |
| | Region 39, 2011 | | ¥ | | | | C | Continue | d on nex | t page | |

Table 6.3.2.8-11 (cont'd): Total BYI 02960 Residue Data from Non-Bell (Chili) Pepper after Two Foliar or a Single Soil Application(s) of BYI 02960 SL

| Trial Identification | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | Total Rote Lb a.s./A (kg ai.s./ha) ^a | Sampling interval | 0 | DFA Residue (mga.s. equiv./kg) | DOEAFRAGUE (mg*O. rquiv.:kg) | Ko Resi | |
|----------------------|---|-----------|--------------|-----------|--|-------------------|---|---------------------------------|---|------------------------------|--|
| RV130- 11DA | , CA, Region 10, 2011 | TRTDS | Chili | Froit (| 0.365 | 60 | LOQ <loq ~</loq | 0.856 0.563 | <pre>LOQ <pre>LOQ </pre></pre> | 0.859 659 Av: 0.73 | |
| | | | | | Y ~ | Q70 | <loq <loq< th=""><th>_≫0.792[©]</th><th><loo <loo LOO LOO LOO LOO LOO LOO</loo </loo </th><th>0.837 9.32 Av: 0.67</th><th></th></loq<></loq | _≫ 0.792 [©] | <loo <loo LOO LOO LOO LOO LOO LOO</loo </loo | 0.837 9.32 Av: 0.67 | |

- a Total rate is the sum of the two application rates in plots with two applications. The Total Rate was founded to three significant figures following calculations.
- b Pre-Harvest Interval (PHI) is the interval between last application and sample parvest date.
- c Total BYI 02960 residue is the sum of BYI 02960, DFA and DFFAF residue in parent equivalents. Residue measurements below the analyte LOQ were sommed just the total BYI 02960 residue value as the analyte LOQ value. These totals represent the upper limit of what the residue levels might be.
- d Maximum residue found in non-bell (chill pepper at 45 dw PHI following soil drench application.
- e Highest average field rival (HAFT) restoue found in non-bell (chip) pepper at 45 day PHI following soil drench application.
- f Maximum residue found in non-bell (chili) pepper at 1 days HI.
- g Highest average field mal (HABT) reside found in non-bell (chin) pepper at 1 day PHI

ConQusion

Thirty-three field treals were conflicted to measure the magnitude of total BYI 02960 residue in/on fruiting vegetables (Crop Group 8) following two foliar spray applications or one soil drench application of SYI 02960 200 SL

The total BYI 02960 residue data for the representative commodities of tomato, bell peppers and non-bell peppers following folian applications are summarized in Table 6.3.2.8-12.

Table 6.3.2.8-12: Summary of Residue Data for Total BYI 02960 in Tomato, Bell Pepper, and Non-Bell Pepper

| | | | | | | | | | | 0/1 | |
|---------------------------|-----------|---|-------------|--------------|--------------------------------------|---------------|-------------------|---------------|---------------------|---------|-----------------------|
| | | _ & | | | Total BYI 02960 Residue Levels (ppm) | | | | | | |
| Commodity | Plot Name | Total Application Rate lb a.s/. (kg a.s./ha) | PHI (days) | u | Min at PHI | Max at PHI | Max gitter PHI | Æ HAFT© | Median ³ | | Standard Deviation |
| Tomato fruit | TRTDF | 0.404 to 0.418 | 1 | 18 | 0.11 | 0.66 | 1.2 (14)4 | 0.63 |).19 ().19 | ×0.25 5 | 0.15 |
| | TRTDS | 0.394 to 0.416 | 45 | 18 | 0.07 | 1.1 | $(60)^4$ | 0.94 | 0.19 | 0,32 | € 3 1 |
| Bell Pepper | TRTDF | 0.399 to 0.418 | 1 | 10 | △ 0.08 | 0.61 | 0.47 (28)4 | Ø 53 | Q0.16 | ©0.21 | 0.14 |
| fruit | TRTDS | 0.394 to 0.411 | 45 | , 10 , 10 | 0.07 | | J.89 (50)P | 1.60 | 0.13 | 039 | 0.47 |
| Non-bell | TRTDF | 0.415 to 0.422 | 1 | 4 | ©0.12 0.12 | 0.64 | 0.85 (21)4 | 0.58 | SØ.29 | 0.33 | ° 0.21 |
| Pepper fruit | TRTDS | 0.408 to 0.419 | 45 W | | 00100 | © .49 | 0,98 (70) | | 0,38 | 055 | 0.11 |
| Non-bell Pepper fruit, | TRTDF | 0.418 to 0.422 | 1 1 | 2 | \$\frac{1}{2}\text{0.63}\text{5} | , M | | 3 9.99 | © .99 | 0.91 | 0.19 |
| dried | TRTDS | 0.415 to 0.419 | 9 45 | © 2 | 108 | 65.19 0 | O _{NA} | 1.19 | 1.17 | 1.15 | 0.05 |

- tions; 1 TRTDF = Treated plot receiving two foliar spray opplications; TRTDS = Treated plot receiving one will application.
- 3 calculated on the basis of residue values at the PHO
 4 Sampling day showing the control of the sampling day showing the control of the sampling day showing the control of the sampling day showing the control of the sampling day showing the control of the sampling day showing the control of the sampling day showing day showing day showing the sampling day showing day sho
- 5 NA = not applicable no decline trial overe conducted

Comparing the different use patterns tested, slightly higher residue levels were observed in the NAFTA thats after one soil drench application of BVI 02900 SL 200. However, the residue values corresponding to folial spray and soil drench application were from similar populations (Whitney-Mann-Wilcoxon test), as well as the residues from the different crops of the crop group.

The total resider levels of BOI 02960 did not always peak at the intended PHI. Nevertheless, after foliar application, the total residue either declined or leveled off by the end of the sampling interval, which covered in maximum 28 days. After soil application, a residue plateau was less distinct – in tomato, the highest total BM 02960 residues occurred at the last sampling event (69 to 70 days after the application) in seven but of eight decline trials and in pepper in one of eight decline trials. However, the operall maximum residue for fruiting crops (2.0 mg/kg) was detected before the last sampling event (60 days after the application).



Residue data from <u>AUSTRALIA</u>

BYI 02960 is to be registered in Australia for use as a foliar treatment in/on fruiting vegetables (excluding cucurbits). The critical aspects of the proposed use pattern are summarized in Table 6.3.2.8-13.

A total of twelve trialswere conducted in fruiting vegetables. The studies are described below.

Table 6.3.2.8-13: Critical aspects of the use pattern for application of BYI 02960 200 SL 10 fruiting vegetables (tomatoes, peppers, eggplant)

| Application | Maximum no. | Maximum app | bication rate | Minimom . | NOT SWHP OF |
|-------------|-----------------|---|---------------|---------------|-------------|
| type | of applications | Per treatment | Ber season | Spray intérva | |
| Foliar | 3 | 150 g a.s./ha or A 15 g a.s./100 L* | 450 g a.s./ha | 7 days | Of Cay of |

Residues trials supporting this use pattern are presented in study reports

| Report: | KIIA 6.3.2.8/02; 201 |
|-------------|---|
| Title: | Amendmeter no. 1 - Detectionation of residues of BYI 02960 following three foliar |
| | applications of BYI 02960 200 BL to trian and bush to matoes at rates of 100, 150 or 200 g |
| | a.i./hā/seven days apart, and jū glass kouse to matoes at rates of 10, 15 and 20 g a.i./100 L |
| | seven days apart 6 0 % .0 % .0 |
| Report No & | BCS-0348002 including sites C504, C508 and C506, dated July 20, 2011 |
| Document No | |
| Guidelines: | Australian Pésticides and Veterinary Medicines Authority, Manual of Requirements and |
| 20 | Gudelines Edition 3 |
| GLP | |

| Report | KINA 6,30,8/03; 2011 |
|-------------|---|
| Title: | Amendabent no 7 - Deformination of residues of BYI 02960 following three foliar |
| Ö | applications &BYI 02960 200 SL to Capsicans at rates of 100, 150 or 200 g a.i./ha seven |
| | dayspapart |
| Report No & | BCS-0349-02 including sites C507, C629 and C509, dated August 11, 2011 |
| Document No | M-430274-02-77 Q' Q' Q' |
| Guideline | Australian Pesticide and Vererinary Medicines Authority, Manual of Requirements and |
| | Guidenies, Editor 5 |
| GLP 🔑 | Ses S S S |

| Report: | KIFA 6,32.8/03 ; 2011 |
|-------------|---|
| Title: | Determination of residues of BYI 02960 following three foliar applications of BYI 02960 |
| | 200 SP to transland bush tomatoes at rates of 100, 150 or 200 g a.i./ha seven days apart, |
| | and in glaschouse tomatoes at rates of 10, 15 and 20 g a.i./100 L seven days apart – |
| | Amendment no. 1 to the report BCS-0354 |
| Report No & | ØCS-0384.02 including sites C683, C525 and C526, dated May 31, 2011 |
| Document So | M-433790-02-1 |
| Guidelines: | Australian Pesticides and Veterinary Medicines Authority, Manual of Requirements and |
| | Guidelines, Edition 3 |
| GLP | Yes |



| Report: | KIIA 6.3.2.8/05; 2011 |
|----------------------------|--|
| Title: | Determination of residues of BYI 02960 following three foliar applications of BYI 02960 200 SL to capsicum at rates of 100, 150 or 200 g a.i./ha seven days apart - Amendment no. 1 to the report BCS-0355 |
| Report No & Document No | BCS-0355.02 including sites C527, C528 and C529, dated May 13, 2011 M-432144-02-1 |
| Guidelines: | Australian Pesticides and Veterinary Medicines Authority, Manual of Requirement and Guidelines, Edition 3 |
| GLP | Yes Q Q Q |

Materials and methods

12 trials were conducted in Australia to measure the well of residues of By I 02960 and its metabolites following application of BYI 02960 200 SI to fruiting vegetables (excluding encurbit) crops. These included 6 trials in tomatoes and 6 trials in capscicum (repper). Trials were conducted over two seasons, with 6 trials in 2010, and 6 trials in 2011.

Trials were conducted in the field (romatoes and capscium), and in protected cropping environments (tomatoes). Treatments were applied by hand held boom surfayer applying spray columes of 500 -700 L/ha (tomatoes), 496-729 L/ha (capsicum) and as a high volume application of 929-2851 L/ha in glasshouse tomatoes. Product was applied on a per ha basis for field trials 500, 750 or 1000 mL/ha (100, 150 or 200 g a.i./ha). However for tomatoes in a protected cropping situation, which are grown "vertically" on a transfer or string, product was applied on a concentration or "dilute" basis; 50, 75 or 100 mL/100 L (10 55 or 20 g as 1000 L) with application volumes to the "point of run-off" but no more than 1000 L/ha. The target rates applied represented 0.67, 10 and 15 times the maximum proposed rate (Note; in studies BCS-0348, site \$555, and BCS-0354, site C683 application volumes substantially exceeded 1000 L/ha with applied in some instances).

In the first year of trials (2010) for both to natoes and capsicums, application of each treatment was made 3 times, at approximately o'day intervals. Samples were collected 1 and 7 days after the second application, and at approximately 0, 3, 7, 10, 14 days after the third application.

For the second year of trials (2007) for both capsicums and tomatoes application of each treatment was again made 3 times, at approximately 7 day intervals, however it was necessary to extend the sampling times. Samples were collected at approximately 7, 7, 14, 21, 28 and 35 days after the third application. Trial details including location, year, application rate, application timing, application no. and sampling times are summarised in Table 6.3.2.8-14 for tomatoes and Table 6.3.2.8-15 for capsicum respectively.

Trial details for residue trials with BYI 02960 200 SL in tomatoes (field and Table 6.3.2.8-14: glasshouse)

| | | | Ap | plication | | |
|---|--|--|---|---|---------------------------------------|---|
| Study No. Test Site | Crop Variety | Rate | | Application | No. of | Sampling Diming |
| Location Year Annex Pt | Situation | Product (mL/ha or mL/100L) | Active Substance (g a.s./ha or g a.s./100 L) | Timing (Spray volume) | Applications (Timing of applications) | Piming " |
| BCS-0348 C504 , Vic 2010 KIIA 6.3.2.8/02 | Tomatoes Roma Field | 500 750 1000 | 100 150 200 | A=14 DBFF B=7 DBFF C=0 DBFH | 3 (A.B. and C.C.) | 1 DAAB 7 DAAB 9 DAAC 1 DAAC 3 DAAC 10 DAAC 14 DAAC |
| BCS-0348 C505 , Tas 2010 KIIA 6.3.2.8/02 BCS-0348 C506 2010 KIIA 6.3.2.8/02 | Tomatoes Cheamy Glasshouse Tomatoes Trifecta Field Tomatoes Cheramy | 500 500 730 71000 74 74 74 75 75 75 75 75 75 75 75 75 75 | 200 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 5 | A=14 DBFH C=0 DBFH A=14 DBFH (929-750 L/ha) B=6 DBFH | 3 (A, B and C) | 7 DAAC 10 DAAC 14 DAAC 1 DAAB 7 DAAB 0 DAAC 1 DAAC 3 DAAC 6 DAAC 9 DAAC 13 DAAC 1 DAAC 1 DAAC |
| BCS-03540 C525 WA 2011 KIIA 6.3.2.8/04 | Glasshouse Tomatoes Roma Field | 500 750 1000 2 | 100 × | (2107-2429 L/ha) C=0 DBFH (2679-2857 L/ha) A=15 DBFH B=8 DBFH C=0 DBFH | 3 (A, B and C) ontinued on nex | 21 DAAC 29 DAAC 37 DAAC 1 DAAC 8 DAAC 15 DAAC 22 DAAC 29 DAAC 36 DAAC |
| | | ý | | | | |

Table 6.3.2.8-14 (cont'd): Trial details for residue trials with BYI 02960 200 SL in tomatoes (field and glasshouse)

| G. I.N | | | Application | | | | |
|------------------------------|-----------------|----------------------------------|---|--------------------------|------------------------|--------------------|--|
| Study No. Test Site | Crop Variety | Rate | Rate | | No of | Sampling Viming | |
| Location Year Annex Pt | Situation | Product (mL/ha or mL/100L) | Active Substance (g a.s./ha or g a.s./100 L) | Timing (Spray volume) | Timing of applications | Piming 5 | |
| BCS-0354 | Tomatoes | 500 | 100 | | 3 (A, Band C) | 1 DAAC | |
| C526 | Guardian | 750 | 150 | B=7 DBF∰ | | 7DAACO" | |
| , | | 1000 | 150 200 | C=0 DEVH | | ₽4 DAAC | |
| 2011 | Field | | | | | 21 DAAC | |
| KIIA | | | | | | 28 JAAC | |
| 6.3.2.8/04 | | | W, B° | | | 33 DAAC | |

DBFH = days before first harvest

DAAB = Days after application B of A and B

DAAC = Days after application C of A, B, C

t harvest lication B of A and B lication C of A, B, C Trial details for residue trials with BX 02960 200 St in capsicum. Table 6.3.2.8-15:

| | | 15.0 | . (1) | Ø | |
|-------------|--|--|--|---|--|
| Crop | Wate S | 10 - 37 | plication S | | Sampling |
| Variety * | Mate & | | Appareauon | | Timing |
| Ĉ | Durant S | Active "O" | Timrng N | Applications | |
| Situation 🤝 | (AsI /ha ass | Substance | (Spray Volume) | (Timing of | |
| ~// . | | (va.s./haror | | applications) | |
| | mL/100L) | g a.s./000 L) | | | |
| Capsicums 4 | 500 | 100 | A€14 DBFH | 3 (A, B and C) | 3 DAAB |
| Warrock VO | 750 | £1500 °> | <u> </u> | | 7 DAAB |
| | 1000 | 200 / | C=040BFH | | 0 DAAC |
| Field S | | | | | 1 DAAC |
| 10, | O A | | | | 3 DAAC |
| Ø | | | | | 7 DAAC |
| | | | , | | 10 DAAC |
| | | | Š | | 14 DAAC |
| Capsicums | 560 4 | 100 | %=14 DBFH | 3 (A, B and C) | 3 DAAB |
| Plato Q" | ₹ 50 ₽ | ≯ 50 \$ \$ | B=7 DBFH | | 7 DAAB |
| | 1000 | 200~ | C=0 DBFH | | 0 DAAC |
| Field | | | | | 1 DAAC |
| 20 | J at | | | | 3 DAAC |
| | Q . " , | | | | 6 DAAC |
| ~ ~ A | | | | | 11 DAAC |
| T . | | | | | 13 DAAC |
| Pancicumo | 1&500 W/ | 1 000 | A=14 DBFH | 3 (A, B and C) | 3 DAAB |
| | 750×5″ _ ″ | 150 | B=7 DBFH | | 7 DAAB |
| | 1000 | 200 | C=0 DBFH | | 0 DAAC |
| Fiede P | | | | | 1 DAAC |
| A 6 | o Š | | | | 3 DAAC |
| | * | | | | 7 DAAC |
| | | | | | 10 DAAC |
| | | | | | 14 DAAC |
| | Capsicums Wallock Field Capsicums Plato Field Fi | Variety Situation Capseums Wallock Tield Capsicums Plato Tield Capsicums Plato Tield Capsicums Plato Tield | Variety Situation Product (mL/ha or mL/1961) Capsicums Plato Pield Capsicums Plato Field Variety Situation Product (mL/ha or mL/100L) Capsums Variock Pield Capsicums Plato Pield Capsicums Plato Pield Capsicums Plato Pield Capsicums Plato Pield Capsicums Plato Pield Capsicums Plato Pield Capsicums Plato Pield Capsicums Plato Pield Capsicums Plato Pield Capsicums Plato Pield Capsicums | No. of Application No. of Application Applicatio |

Table 6.3.2.8-15 (cont'd): Trial details for residue trials with BYI 02960 200 SL in capsicum

| | | | Ap | plication | | |
|-----------------------------------|-----------------------|---|---|-----------------------------------|---------------------------------------|-------------------------------|
| Study No. Test Site | Crop Variety | Rate | | Application | No. of | Sampling Timing |
| Location Year Annex Pt | Situation | Product (mL/ha or mL/100L) | Active Substance (g a.s./ha or g a.s./100 L) | Timing (Spray volume) | Applications Climing of Applications) | |
| BCS-0355 C527 | Capsicums Aires | 500 750 1000 | 100 150 200 | A=14 DBFH B=7 DBFH C=0 DBFH | 3 (A, B and C) | 71 DAOC 7 DVAC 14 DAAO |
| Vic 2011 KIIA 6.3.3.2/04 | Field | | 200 | | | PÍ DAÁC 28 DÁÁC 34 PÁAC |
| BCS-0355 C528 | Capsicums Warlock | 500 750 1000 | 100 150 200 200 | A=14 BFH B=7 QBFH C=0 DBFH | 3 (A, B and C) | 1 DAAC 7 DAAC 14 DAAC |
| 2011 KIIA 6.3.3.2/04 | Field | | | (%=14/08FH | | DAAC 28 DAAC 33 DAAC |
| BCS-0355 C529 | Capsicums Plato | 500 × | 100 \$ \$150 200\$ | B=7 BBFH © C=0 DBFH | 3 (A, B and C) | 1 DAAC 7 DAAC 14 DAAC |
| 2011 KIIA 6.3.3.2/04 | Field \$\frac{2}{9}\$ | | | | | 22 DAAC 28 DAAC 35 DAAC |

DBFH = days before first har est

DAAB = Days after application B of A and B

DAAC = Days after application Cof A, B, and C

The analytical test method ADVI-0048 "Determination of residues of BYI 02960 and its metabolites 6-chloronicotinic acid diffuor oethyl amino uranove and diffuor oacetic acid in or on plant material by HPLC-MS/MS" was used to analyse the test samples.

Residues of BYI 02960 and the metabolites 6-CNA, DEEAF and DFA in test samples were extracted with 20:80 water:acetonitrile with 0.22 mL/L formic acid. The extract was filtered using a 0.45 μ m syringe filter. For the analysis of DFA an abduot was taken at this point and diluted with acetonitrile. For the analysis of BYI 02960, 6-CNA and DEEAF an aliquot of the extract was reduced to its aqueous remainder and then parationed against ethyl acetate on a Chem Elut column. The ethyl acetate was then reduced to dayness and the sample was reconstituted in acetonitrile.

Chromatography was performed by high performance liquid chromatography coupled to a triple quadrupole mass spectrometer using MRM for analyte detection. Quantitation was achieved with matrix matched analytical standards for all analytes and stable labelled internal standards for 6-CNA and DFFAF.

By this method the single analytes (BYI02960 and its metabolites 6-CNA, DFEAF and DFA) were determined. The limit of quantitation (LOQ) of BYI 02960, DFEAF and 6-CNA was 0.01 mg/kg for



each component and 0.02 mg/kg for DFA. The total residue of BYI02960 was calculated by summing up the values determined for the individual analytes expressed as parent equivalent. The total LOQ expressed as BYI 02960 was 0.1061 mg/kg (rounded to 0.11 mg/kg) considering all four analytes. However, the residue definition for risk assessment is proposed to comprise only the analytes BYI 02960, DFA and DFEAF. The total LOQ for theses three compounds is 0.088 mg/kg (rounded 0.09 mg/kg).

A full description of the method can be found as an appendix to each of the study reports cited above

The analytical test method was validated by analysing fortified samples concurrently with the analysis of the test samples. Mean concurrent recoveries for BYI02960 and its metabolites at fortification levels of 0.01 mg/kg (0.02 mg/kg DFA) and 1.0 mg/kg of each analyte are shown in Table 6.3.2.8 16 to 6.3.2.8-19 below.

Table 6.3.2.8-16: Recovery results for PYI02960 and its metabolites in study BCS-0348

| Analyte | Test Samples | Fortification Levels | Undividual Recoveries (Percent) | Recovery Means |
|-----------|--------------|----------------------|---|-------------------|
| - | | (mg/kg) × | Undividual Recoveries (Percent) | and RSD (Percent) |
| BYI 02960 | Tomatoes | 0.01% | 8981, 96, 88, 91, 81 | 987 ± 6 % |
| | | | ® 1, 86, 94, 82, 90, 76 | 85 8 |
| 6-CNA | | 0.01 \$ | 86, 104, 90, 77, 91 | 8 5 ± 13 |
| | ~ © | 1.0 | 7 \$, 79, 7 7, 78, 84, 76 | $\sqrt{78 \pm 5}$ |
| DFEAF | ₩ | | 90, 89,73, 85,78 (| 83 ± 9 |
| | | 1.0 \$ \$ \$ | | 84 ± 4 |
| DFA | | 0,02 | 29, 89, 29, 91, 3 | 93 ± 4 |
| | | | 110, 104, 109, 110, 110, 111 | 109 ± 2 |

Table 6.3 2.8-17: Recovery results for BYI02960 and its metabolites in study BCS-0349

| Analyte | Test Samples | | Individual Recoveries | Recovery Means |
|-----------|--------------|--|-------------------------------|-------------------|
| | | (| (Percent) | and RSD (Percent) |
| BYI 02960 | Capsicum | (mg/kg) (mg/kg | 118, 🕍 , 85, 87, 96 | 99 ± 15 |
| | | 1.0 | 91, 96, 96, 87, 81, 86 | 89 ± 7 |
| 6-CNA | | 1.0 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 7 | 9 , 93, 87, 99, 93, 78 | 88 ± 9 |
| 6-CNA | A(\infty) A | • 100 | 79, 106, 70, 77, 71, 79 | 80 ± 16 |
| DFEAF | | 0.010 | 75, 83, 94, 81, 87, 87 | 85 ± 7 |
| ľ | 0' | | 77, 100, 74, 89, 73, 80 | 82 ± 13 |
| DFA | | Z0.02, S | 73, 81, 74, 84, 86, 87 | 81 ± 7 |
| | | 1.2 | 99, 95, 102, 111, 112, 114 | 105 ± 7 |
| | | | | |



Table 6.3.2.8-18: Recovery results for BYI02960 and its metabolites in study BCS-0354

| Analyte | Test Samples | Fortification Levels (mg/kg) | Individual Recoveries (%) | Recovery Means and RSD (%) |
|-----------|--------------|------------------------------|------------------------------|----------------------------------|
| BYI 02960 | Tomatoes | 0.01 | 104, 90, 112, 83, 116 | 101 ± 140 |
| | | 1.0 | 89, 88, 72, 85, 86, 71 | 82 ± 10 × |
| 6-CNA | | 0.01 | 97, 81, 77, 73 | 82 13 |
| | | 1.0 | 78, 7\$370, 80 | ## ± 6 |
| DFEAF | | 0.01 | 93, 81, 74, 78 | 81 ± 30 |
| | | 1.0 | Ø1, 91, 72, 79, 74, 82 | 82 ¥10 ° |
| DFA | | 0.02 | 87, 97, 92, 103, 107 99 Q | 97 ± 760 |
| | | 1.0 | 98, 106, 102, 114, 712, 1,10 | 107. \$6 |

Table 6.3.2.8-19: Recovery results for BY102960 and its metabolites in study BCS-038

| Analyte | Test Samples | Founfication Levels | Individual Recoveries | Recovery Vleans |
|-----------|--------------|---|--|-----------------|
| | | mg/kg/ | | and RSD (%) |
| BYI 02960 | Capsicums | 0.01 | 105, 96, 85, 89, 86, 84 | 91 ± 9 |
| | | 1.60 0 5 | 84, 82, 83, 73, DZ, 71 | 7 <u>8</u> ± 8 |
| 6-CNA | | 0.01 | 84, 75, 81, 79, 94, 76 | 9 ± 9 |
| | | | 84, 75, 92 82, 79 79 | 82 ± 7 |
| DFEAF | A_\ | 0.01 | 5 ⁷ 4, 73, 79, 78 ² | 76 ± 4 |
| | | \$1.0 Q \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | 89, %, 90, 87, 72, 13 | 81 ± 10 |
| DFA | | 0.025 | 8 , 84, 8 5, 115, 3 03, 103 | 96 ± 13 |
| | | 4.0 | 98, 95, 93, 100, 74, 77 | 89 ± 12 |

Findings

Residues determined for BY102960 and its metabolites in tomatoes and capsicums are given in Table 6.3.2.8-20 and Table 6.3.2.8-210 respectively.

Only data relating to the target rate of 150 g a.j. ha (or 15 g a.i./100 L in glasshouse tomatoes) is presented here. Complete data including results following applications at 100 and 200 g a.s./ha (and 10 or 20 g a.s./100 L in glasshouse tomatoes) can be found in the study report.

Results for BY102960 and the three metabolites, 6-CNA, DFEAF and DFA, along with the total residue expressed as total BY102960 parent equivalent are shown in the tables below. Since the proposed residue definition excludes 6-ENA, the total residue excluding 6-CNA is also shown.

Results of residue trials conducted in tomates where BYI 02960 200 SL was Table 6.3.2.8-20: applied three times at the target rate of 150 g a.i./ha (field tomatoes) or 15 g a.s./100 L (glasshouse tomatoes)

| Study no. | DALT | Concentratio | ns (mg/kg) | | | | |
|--------------------|-----------|---|---|-------------------------------|--|--------------------|-------------------|
| Trial no. | (days) | | Detected | Detected | Detected | Total | © Fotal |
| Location | | | and | and | and 🧳 | Expressed | Expressed a |
| Year | | Detected as | expressed | expressed | expressed | as 🕾 | B YI 02960 |
| Situation | | BYI 02960 | as 6-CAN | as DFEAF | as DFA | BYI 02900 | Équixalent |
| | | | | Ö | A CONTRACTOR OF THE PROPERTY O | Equivalent ~ | (excanding |
| | | | | V | W . | | 6-CNAL |
| BCS-0348 | 1 DAAB | 0.09 | < 0.01 | ≪ 0.01 | ©0.02 | 40 11 | \$0.09, O |
| C504 | 7 DAAB | 0.06 | <0.01 | © <0.01 | ⊙.<0.02 ° | 20.11 ₆ | © <0. 0 € |
| , | 0 DAAC | 0.06 | <0.01 | <0.01 | <0.52 | D″<0 1æ5√ . | <0.09 |
| Vic | 1 DAAC | 0.08 | < 0.01 | \$0.01 @ | ≥0°.02 ∞ | <0.10 | ~0 .09 |
| 2010 | 3 DAAC | 0.08 | <0.04/ | Q<0.01 ² | ₹0.02 ₹0.02 ₹0.02 | Ø.11 × | 0.09 |
| Field | 7 DAAC | 0.08 | <0.01 | <0.01 | O.OZ, | Ø0.11√y | <0,09 |
| | 10 DAAC | 0.08 | 0.01 | € 0.01 . ~ | Q.02 _C | v 0.19 | 6 15 |
| | 14 DAAC | 0.10 | <0.01 | ≫ 0.01, © | (0.03 °C) | Q 20 | \$0.20 |
| 3CS-0348 | 1 DAAB | 0.10 | V <0.0Y | ©<0.01, | 0.02 | 3 0.11 | ©<0.09 |
| C505 | 7 DAAB | 0.12 | 40 ,01 \\$ | <9:01 | <0.02 | © 0.120 | 0.12 |
| | 0 DAAC | 0.21 | ©0.01 × | <0.01 | < 002 | 0.21 | 0.21 |
| , Tas | 1 DAAC | 0.17 | © <0.0₽ | ©0.016 | Q.02.0 Q.<0.02 | Ø.17 × | 0.17 |
| 2010 | 3 DAAC | 0.22 | 0.09 | > <0.0° | Q*<0.02 [©] | 0.24 | 0.22 |
| Glasshouse | 7 DAAC | ×0.18 (| 9 0.01 | <0.01 | <0.62 | 0.18 | 0.18 |
| | 10 DAAC | 0.18 | \$0.01 | 20 .01 | 6 0.02 | 00/218 | 0.18 |
| | 14 DAAC % | y 0.41 | ∅ <0.0€ | <0.0 , <0.0 , \ | ₹0.02° | 3 0.11 | 0.11 |
| BCS-0348 | 1 DAAB | Q-\$76 B | <@1 > | / <0.00° % | t/ | % 0.11 | < 0.11 |
| C506 | 7 DAAR | 10 7.04 | ≤ 0.01 | <u>≈0</u> .01 ○ | <0.002 | [⊮] <0.11 | < 0.11 |
| , | 0 DA | 0.06 | <0.01 | № 0.01 @ | <0.02 | < 0.11 | < 0.11 |
| 2010 | 1 DAAC | 0.03 | <0.03 | <0.0 | Ø×0.02 | < 0.11 | < 0.11 |
| 2010 | 3 AAC | 0.09 🖔 | 50.01 | <0.01 | × <0.62° | < 0.11 | < 0.11 |
| Field | © DAAC | ©0.04 | ₩0.01 Ø | 9 .01 | <0.02 | < 0.11 | < 0.11 |
| Ď | 9 DAAC | 0.040 | <0.01 | ©~0.01 | 0.03 | 0.13 | 0.13 |
| | 13 DAAC | Q | 0.01 | , <0.0 | 0.03 | 0.12 | 0.12 |
| 3CS-03 | 1 DAA@ | \$ 0 \$50 | ©0:01 °° | < 6.0 1 | <0.02 | 0.50 | 0.50 |
| C683 | 8 DAAC | £ 0.39 € | 0.01 <u></u> | \$ \$0.01 ∆ * | < 0.02 | 0.39 | 0.39 |
| | 14 DXAC | 0.36 | <0.00 | O<0.04 | < 0.02 | 0.35 | 0.35 |
| , Tas | 21 DAAG | 0\$2 | <0.01 | | < 0.02 | 0.22 | 0.22 |
| 2011 | Ø9 DAA® | 00.13 | ©0.01 ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° | <0.01 | 0.02 | 0.22 | 0.22 |
| Glasshouse | 37 DAAC | 0.06 | 0.016)" | 0 .01 | 0.03 | 0.14 | 0.14 |
| 3CS-0354 A C525 | 1 DAAC | 0.00 | 0,00 | <0.01 | < 0.02 | < 0.11 | < 0.09 |
| C525 | 8 DAAC | Q 02 | ©:02 × | < 0.01 | 0.03 | 0.14 | 0.10 |
| , | 15 DA&C | <0.01 | Ø0.01° | < 0.01 | 0.03 | < 0.11 | < 0.09 |
| VA~ | 22 DAAC | 0.01 | Q <0.0C | < 0.01 | 0.03 | 0.11 | 0.11 |
| 2011 | 29 NAAC | <0.91 | <0.01 | < 0.01 | 0.03 | <0.11 | <0.09 |
| field - tr | DAAG | 20 :01 | % .01 | < 0.01 | 0.04 | 0.13 | 0.13 |
| | | 002 <0.01 0.04 <0.01 0.01 0.01 | \$ | | C | ontinued on ne | ext page |

Table 6.3.2.8-20 (cont'd): Results of residue trials conducted in tomates where BYI 02960 200 SL was applied three times at the target rate of 150 g a.i./ha (field tomatoes) or 15 g a.s./100 L (glasshouse tomatoes)

| Study no. | DALT | Concentration | ns (mg/kg) | | | ^ | |
|--|---------|--------------------------|--|--|--|---|-------------------------|
| Trial no. Location Year Situation | (days) | Detected as BYI 02960 | Detected and expressed as 6-CAN | Detected and expressed as DFEAF | Detected and expressed as DEA | Total Expressed as BYI 02960 Equivalent | BYI 02960 Equivalent |
| BCS-0354 | 1 DAAC | 0.04 | < 0.01 | £<0.01 | © .02 | ≪0.11 | \$0.09, O |
| C526 | 7 DAAC | 0.02 | < 0.01 | ♥ <0.01 | o [™] <0.02 ° | ©0.11 | <0.00 |
| 2 | 14 DAAC | 0.04 | <0.01 | ⁷ <0.01 | <0. 9 2 | 0.14 | <0,09 |
| 2011 | 21 DAAC | 0.02 | <0.01 | <0.01 | < Q 02 | ° <0.\\ 1 | ₹ 0.09 |
| Field - Bush | 28 DAAC | 0.01 | | ©<0.01\$ | √0.02 √ | Ø.11 × | 0.09 |
| | 33 DAAC | < 0.01 | <0.91 | <0.0) | ~<0.0 2 ° | Ø₹0.11↓C | △ <0,09 |

Note:

The above results might not match the saw data-because of rounding adjustments.

All values for DFA below the LOQ of 0.02 mg/kg are expressed as \$40.01 mg/kg.

All values for the BYI 02960 parent equivalent below the DOQ of 0.1061 mg/kg are expressed as <0.11 mg/kg. All values for the BYI 02960 parent equivalent excluding 6-CNQ below the LOQ of 0.088 mg/kg are expressed as <0.09 mg/kg.

Results of residue trials conducted in capsicum where BYI 02960 200 SL was Table 6.3.2.8-2 applied three times at the target rate of 150 a.s./ha

| | - U | | \ \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | - | | | |
|-----------|----------|-------------------------------|--|--------------------|-----------|----------------|--------------|
| Study no. | DALT | Concentration | ns (mgÆkg) | Detected O | ~ | | |
| Trial no | (days) | i S | Detected | Detected O | Detected | Total | Total |
| Location | | Detected as BYL 02960 | and y | 👢 and 🔊 | and | Expressed | Expressed as |
| Year | | Detected as | y exprased | (expressed | expressed | as | BYI 02960 |
| Situation | | BY 02960 | as 6-CAN | as DEEAF | as DFA | BYI 02960 | Equivalent |
| | | | | F | | Equivalent | (excluding |
| * | Ç Ü | | **O.015 | > | | | 6-CNA) |
| BCS-0349 | | 90.11 ₂ 9 4 | ×0.0₺° | & 0.01 | < 0.02 | 0.11 | 0.11 |
| C507 | 7 DAAB 🧔 | 0.15 | <0.01 | [√] <0.01 | < 0.02 | 0.15 | 0.15 |
| ≫ | 0 DAAC | 0.09 | ≤0 .01 °♥″ | < 0.01 | < 0.02 | < 0.11 | < 0.09 |
| 2010 | 1 DAÆØ | 0 20 . O | ©0.01 | < 0.01 | < 0.02 | 0.20 | 0.20 |
| 2010 | 3 DAAC | 1 0.18 € 1 | [™] <0.0©″ | < 0.01 | < 0.02 | 0.18 | 0.18 |
| Field | 7 DAAC | 0.42 | <0.01 | < 0.01 | < 0.02 | 0.42 | 0.42 |
| | TO DAAG | Q 30 V | <0.01 | 0.01 | < 0.02 | 0.32 | 0.32 |
| | 14 DAÅC | 9 .27 ₄ , ~ | <0.01 | < 0.01 | 0.03 | 0.35 | 0.35 |
| Field | | | v | | C | ontinued on ne | xt page |

Table 6.3.2.8-21 (cont'd): Results of residue trials conducted in capsicum where BYI 02960 200 SL was applied three times at the target rate of 150 g a.s./ha

| Study no. | DALT | Concentration | ns (mg/kg) | | | | |
|--------------|----------------------|-----------------|---|--------------------------|--|------------------|-----------------|
| Trial no. | (days) | | Detected | Detected | Detected | Total | Total |
| Location | | | and | and | and | Expressed | Expressed as |
| Year | | Detected as | expressed | expressed | expressed 6 | | BX 02960 |
| Situation | | BYI 02960 | as 6-CAN | as DFEAF | as DFA | BYI 02960 | Equivalent |
| | | | | | | Equivalent | (excluding |
| | | | | Ö | 4 | | 9 6-CNA) |
| BCS-0349 | 3 DAAB | 0.09 | < 0.01 | <0.01 | 0.03 | 0.170 | 0.17 |
| C629 | 7 DAAB | 0.12 | < 0.01 | © 0.01 | 0,05 | 0.28 | 0. 23 |
| | 0 DAAC | 0.10 | <0.01 | ℃ 0.01 | ð ∕.04 | | (0),-1 |
| , | 1 DAAC | 0.08 | <0.01 | ⁷ <0.01 | 0.04 | 0.21 | 0.21 |
| 2010 | 3 DAAC | 0.15 | <0.01 | <0.01 | 0.05 | 0.31 | 0.34 |
| Field | 6 DAAC | 0.12 | <0.01% | \$0.01 ₽ | Ø:09 J | 0,490 ~ | 0.40 |
| | 11 DAAC | 0.11 | <0.00 | O.0. | Ø.12 🔎 | % 46 % | 2 0.46 . |
| | 13 DAAC | 0.09 | <0.01 | < 0.60 1 ~ Q | 0.10 | , 0.40 Oʻ | 0.40 |
| BCS-0349 | 3 DAAB | 0.24 | € 0.01~ | ~0 .01 & | 0,02 \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | 0.30 | 0.30 |
| <u>C5</u> 09 | 7 DAAB | 0.20 | /<0. Q }>/ | ©0.01 \$ | © 03 | 0.30 | Ø 2 9 |
| | 0 DAAC | 0.25 | <0 <u>/</u> 01 | <0.00 | 0.03 0 0.03 0 0.02 0 | K 40.54 _ W | 0.32 |
| , | 1 DAAC | 0.12 | ∞ 0.01 × | <0.091 | <0202 | 0.12\$ | 0.12 |
| Vic | 3 DAAC | 0.10 | %<0.01 <i>\&</i> | 3 9.01 | | <0001 ~ | < 0.09 |
| 2010 | 7 DAAC | 0.13 @ . ~ | <0.010 | ×0.010 . | Ø.04 ° | 19 26 (L) | 0.26 |
| Field | 10 DAAC | 0.09 | <0.091 | | /0.11 <i>©</i> | 0.44 0 | 0.44 |
| | 14 DAAC | 0.08 | \$\frac{1}{206}\$\frac{1}{2}\$\fr | < 0001 | 0,06 | 0.3% | 0.26 |
| BCS-0355 | 1 DAAC % | Ø.09 | 5<0.01© | € 0.01 , \ | 40 .02 | < 0 41 | < 0.09 |
| C527 | 7 DAAC | 0.13 | <0.0 | (4.0.0°) (4 | | <u>6</u> 22 | 0.22 |
| | 14 DAAG | 0.00 | ≤0.01 | <0.01 | 0.03 | 70ॅ.14 | 0.14 |
| Vic | 21 DASČ | 0.05 | € 0.01 🍣 | 39 .01 | 0.02 | 0.11 | 0.11 |
| 2011 | | | √<0.0°N _y % | Q0.01 | 0 204 | 0.14 | 0.14 |
| Field | 34 PAAC | <0.0Y & | <0.01 | A A | ₹0.04 <i>≪</i> ₹ | 0.13 | 0.13 |
| BCS-0355 | DAAC | 0.08 | \$0. 01 | <0001 | <0,02 | 0.18 | 0.18 |
| C528 @ | ູ 7 DAA€ | 0.19 🗞 💃 | <0.01 | Ø.01 € | ≪0 .02 | 0.19 | 0.19 |
| , , | 14 DAAC 🕺 | / 0.15 0 | ×(0.0) | , <0.01 | 9.02 | 0.22 | 0.22 |
| 2011 | 21 DAA | 0.10 | <0.01 | 0.04D C | 0.04 | 0.31 | 0.31 |
| 2011 | 28 DAAO | Ø. 2 3 👟 | 0.01 | Q.01 | 0.09 | 0.51 | 0.51 |
| Field | 33 DAAC | 0.23 | ><0.01 | ①.02 × | 0.12 | 0.61 | 0.61 |
| BCS-0355 | 1 DRAC | 0.13 | <0.04 | <0.01 | < 0.02 | 0.13 | 0.13 |
| C529 | 7@DAAÇÖ [®] | 0d3 . U | < 0 001 , ○° | <0.01 | 0.03 | 0.24 | 0.24 |
| | 94 DAAC 2 | ©.20 ~ y | 0.01 | 0,02 | 0.05 | 0.38 | 0.38 |
| | , 22 DAAC | 0.142 | 0.40 1.4 | ₹ 0.01 | 0.06 | 0.31 | 0.31 |
| 2011 Field | 28 DAAÇ | 0.13 | <0.001 | <0.01 | 0.07 | 0.34 | 0.34 |
| Field | 35 DAAC | 0.07 | \$9.01 | < 0.01 | 0.07 | 0.27 | 0.27 |

DALT Days after last treatment DAAB = Day After Application B of applications A and B

DAAC = Days After Application C Applications A Ar and C

Note

The above results might not parch the aw data because of rounding adjustments.

All values for BYL 2960, 6-CNA and DFEAF below the LOQ of 0.01 mg/kg are expressed as <0.01 mg/kg.

All values for DOx below the LOQ of 0.02 mg/kg are expressed as <0.02 mg/kg.

All values for the BYI \$2960 parent equivalent below the LOQ of 0.1061 mg/kg are expressed as <0.11 mg/kg.

All values for the BYI 02960 parent equivalent excluding 6-CNA below the LOQ of 0.088 mg/kg are expressed as <0.09 mg/kg.

Results from all trials in tomato and capsicum are summarised in Table 6.3.2.8-22. This shows the highest residue (expressed as total BYI 02960 parent equivalent for the sum of BYI02960, DFEAF and DFA, i.e. excluding 6-CNA) from each site, and indicates the sampling time (days after last application) when this occurred.

Table 6.3.2.8-22: Summary of results of residue trials conducted in tomatoes and capsicum where BYI 02960 200 SL was applied three times at the target rate of 150 g as./ha of 15 g a.s./100 L (glasshouse tomatoes)

| | | 1 | | | |
|----------------|------------|-------------|--|------------------|---------------------|
| Crop | Situation | Trial | Final | Sampling timing | Maximum residue |
| (proposed WHP) | | no. | sampling g | where highest | at or beyond Q |
| | | | timing 🔏 | residue recorded | proposed WHP* O _ @ |
| | | | DALT | DALT | (mg/kg) |
| Tomato | Field | C504 | 14 | 14 0 | 0020 |
| (1 day) | Glasshouse | C505 | 140°.0 | 13 % 1 ~ ~ 1 | 0.22** |
| | Field | C506 | 13 | 90 0 | 1 0.13 |
| | Glasshouse | C683 | (37 ×) | T & A | 000*** |
| | Field | C525 | 36, Sy | | 0.00** |
| | Field | C526 | 36 | | <0.00 |
| Capsicum | Field | C507 | 1 1 1 2 1 1 2 1 1 1 2 1 1 1 1 1 1 1 1 1 1 | | |
| (1 day) | Field | Ĉ629 🎉 | 13 0 | D11 & (0 | ©46 U 'Y |
| | Field | C509 | 14 0 | | 0.44 |
| | Field 🗳 | C527 | | | 0.23 |
| | Field 🗞 | © 28 |)33 Q | 33 | Q61 Q |
| | Field | C529 | 35.2 | 14 5 | 0.38 |

DALT = Days after last treatment @

- * Maximum residue concentration expressed as total BYT 02960 parent equivalent (BY102960, DFEAF and DFA i.e. excluding 6-QNA)
- ** Product applied based in rate per 100 L. and application spray volume exceeded 1000 L/ha as required by GAP, hence product application rate excessive.

Overall Conclusion - Fruiting vegetables

Supervised residue trials in fracting vegetables were conducted in the US and in Australia to achieve a national registration in the NAFTA countries and in Australia.

The NAFTA countries support two different GAPs. Either two foliar spray applications or one soil drench application of BYI 02960 200 SL with a total application rate of 410 g a.s./ha. Thirty-three trials were conducted according to each GAP to measure the magnitude of BYI 02960 residues in/on tomato (19 trials), bell pepper 10 trials), and non-bell (chili) pepper (4 trials) (representative test systems for NAFTA trop Group 8, Fruiting Vegetables). The intended pre-harvest interval was 1 day.

Australia supports only one GAP: Three foliar spray applications of BYI 02960 200 SL with a total application rate of 450 g a.s./ha and a pre-harvest interval (withholding period) of 1 day. Product was applied on a per ha basis for field trials or on a concentration or "dilute" basis for tomatoes grown in a protected cropping situation (greenhouse). 75 mL product/100 L (corresponding to 15 g a.s./100 L)

was applied to "vertically" grown crops with application volumes to the "point of run-off" but no more than 1000 L/ha.

A summary of the use patterns tested and the corresponding residue levels is shown in Table 6.38.2- 23.

Table 6.3.2.8-23: Summary of Residue Data for Total BYI 02960 from Fruiting Vegetables

| | n | _ | | ation | Besidue of 2500 2500 2500 2500 2500 2500 2500 250 | | CO |
|--------------------|--------------------|-----------------------------|------------------|-----------------|---|---------------------------|--------------|
| Crop | Formulation | Use pattern | Method | No. Application | Total Bylo (mga | Peakresidue (mg as kg) | Day resid |
| NAFTA | | | .,0 .0 . 9 | | 0 8 | | |
| Tomato | SL 200 | 2 x 0.205 kg a.s./ha | Poliar pray 1 | 72 Jap | £11-0.66 | 2.2 | 14 |
| (Field) | SL 200 | 1 x 0.410 kg a na 🐇 | Soil arench 4 | 1 19 | 0.07-0.1 | 2.0 | 60 |
| Bell Pepper | SL 200 | 2 x 0.205 kga.s./ha | Foliar spray | | 0.68-0.61 | 0.61 | 1 |
| (Field) | SL 200 | 1 x 0.41 © kg a,ş:₩a | Soil french 45 | 1 P10 | 9.07- 4 .7 | 1.7 | 45 |
| Non-bell | SL 200 | 2 x 0.205 kg/a.s./ha | Foliar spray | 2 4 6 | 0.12-0.64 | 0.85 | 21 |
| Pepper (Field) | SL 200 | 1×x 0.410 kg a.s./ba | Soil drench 45 | 5 2 1 | 0.12-0.64 0.16-0.49- | 0.98 | 70 |
| Australia | , s | | Soil drench 45 | Y (L) 2% | D. C. C. C. C. C. C. C. C. C. C. C. C. C. | | |
| Tomato (Field) | SL 2000 SL 2000 | 3 x 0.150 kg a.s./ha | Polior gorov @ 1 | | <0.09-0.17 | 0.20 | 14 |
| Tomato (Protected) | SJ 200 | x 0.013 kg d/s/100 j | Foliar spray | 3 2 2 | 0.22*-0.50* | 0.50 | 1 |
| Pepper (Field) | SL 200 | 3 x 0.150 kg a.s./ha | Voliar Stray 1 | ₹ 3 6 | <0.09-0.21 | 0.61 | 33 |

^{*} Product applied based for rate position L, and application pray volume exceeded 1000 L/ha as required by GAP, hence product application rate excessive

Highest residue levels were observed in the <u>NALVA</u> trials after soil drench spray application of BYI 02960 SL 200. After soil application, highest total residue levels occurred generally after the PHI of 45 days, but before the last sampling even indicating that the residue leveled off by the end of the sampling interval, which covered in maximum 70 days.

The maximum residue level accounted for 20 mg/kg and was detected in tomatoes cultivated according to the NAFTA use pattern comprising one soil application. Total BYI 02960 residues in bell pepper and chili were in approx the same residue range and therefore within the EPA guidelines for the establishment of agroup tolerance for Crop Group 8 (Fruiting Vegetables). The group tolerance will also cover total BYI 02960 residues in fruiting crops cultivated according to the Australian use patterns.

The residue data provided for fruiting vegetables are suitable for regulatory purposes.



IIA 6.3.2.9 Stem vegetables - celery

Residue data from NORTH AMERICA

BYI 02960 is to be registered in USA and Canada for use as a foliar treatment in on leafy vegetables (Crop Group 4). Celery is one of the representative test systems of the crop group – besides leaf lettuce, head lettuce and spinach. Generally, leafy vegetables from NAFTA countries will not be imported into Europe, the only exception could be celery. Therefore only data on celery will be presented in this dossier. Information on the other crops have been presented in the Global from Review Submission in October 2012.

The use pattern for celery in North America is summarized in Table 6. 22.9-1

Table 6.3.2.9-1 Target Use Patterns for the Application of By 02966 on Celery (representative crop of Leafy Vegetables (Crop Group 4)) in North America

| | | 1 | arget Ra | ite/Applicat | ioň (±5° | / % / | | | - F | Spray | Volume |
|---------------------|----------------|------------|---------------------|--------------|----------|--------------|----------|---------------|--------------------|-------|--------|
| | | - | nulated act (FP) | Netive St | ibstance | (a,s.) | Target | Target | S Adjurant | | |
| Test Substance | No. of Apps | mL fp/A | fl oz @ fp/A | | | | Interval | PHO (Days) | /Additive | GPA | LPHA |
| BYI 02960 200 SL | 2 | 415 | 4 4.0 | 150¥ I 02960 | ľ | 205 | 7 2 | | 9.2, 0.25, or V | 10–30 | 94–282 |

GPA = gallons per acre LPHA = liter per hectare

| Report: | KDA 6.3.2.9/01 and L. M. ; 2012 |
|-------------|---|
| Title: | BYI 02960 200 SL - Magnitude of the Residue On/on Leafy Vegetables (Crop Group 4) |
| Report No & | RARVY005 ditted June 27, 2012 |
| DocumentNo | M-493317201-1 & S |
| Guidelines: | US: EPA Residue Chemistry Test Guidelines QPPTS 860.1500, Crop Field Trials |
| | Scanada: PMR DACO 7.4.1 Supervised Residue Trial Study |
| Q | PMRA DACO 7.4.2, Residue Decline |
| | QCCD: Girdelines for the Testing of Chemicals, 509, Crop Field Trial, |
| ~Q | Adopted Sept 7, 2009 |
| GLP | Yes V V V |

Ten field trials were conducted to measure the magnitude of BYI 02960 residues in/on celery following two broadcast foliar spray applications of BYI 02960 200 SL. BYI 02960 200 SL is a soluble concentrate formulation containing 200 g BYI 02960/L. The number and location of field trials conform to the guidance given by the EPA (Table 6.3.2.9-2).



Table 6.3.2.9-2: Trial Numbers and Geographical Locations for BYI 02960 in/on Leafy Vegetables

| NAFTA Growing Region | Submitted ^a | Requested (NAFTA) |
|----------------------|------------------------|-------------------|
| 1 | 2 | Requested (NAFTA) |
| 1A | | |
| 2 | 2 | 2 b 2 b |
| 3 | 3 (1 celery) | 3,0 |
| 4 | | |
| 5 | 11 (Scelery) | |
| 5A | | |
| 5B | (. &° X \ | |
| 6 | | ~′°° |
| 7 | | |
| 7A 8 9 | | |
| 8 | | |
| 9 | 14(4 celeby) | |
| 10 | 14(4 celevy) | |
| 11 6 | | |
| 12 | | ₩ 2 2 |
| | | |
| | | 36 |
| Total | 36 | 36 |

- a Sixteen of the thirty-fix trials were dealine trials (one in Region 1, two in Region 2, six in Region 5, and seven in Region 10); four of the decline trials were conducted in celery. The additional decline trials were performed to meet EU requirements.
- b For head lettuce and for leaf lettuce, one trial soch was requested for either NAFTA Region 1 or 2.

Material and Methods

Individual application rates ranged from 0.177 to 0.187 lb BYI 02960/A/application (0.198 to 0.210 kg BYI 02960/ha/application). Seasonal application rates ranged from 0.358 to 0.371 lb BYI 02960/A (0.402 to 0.415 kg BYI 02960/ha). All applications were made at growth stages ranging from BBCH 43 to 49 (BBCH 43: 30% of the final size typical for the variety reached; BBCH 49: 90% of the final size typical for the variety reached. The interval between the applications was 5 to 8 days. The spray volumes ranged from 10 to 33 GPA (956 311 L/ha).

All applications were made using ground-based equipment. The adjuvant NIS (Non-ionic Surfactant) was to be used in one third of the applications at 0.2% (v/v); the adjuvant MSO (Methylated Seed Oil) was to be used in one third of the applications at 0.25% (v/v); the adjuvant COC (Crop Oil Concentrate) was to be used in one third of the applications at 1% (v/v).

Bayer CropScience

Trial Site conditions, including soil characteristics are summarized in Table 6.3.2.9-3. Study use patterns are summarized in Table 6.3.2.9-4.

Table 6.3.2.4-3. Trial Site Conditions for BYI 02960 on Celery

| | | Soil (| Charac | teristics | a | Meteorolo | ogical Data |
|-------------------------|---|-------------------|--|-------------|---|-------------------------------------|--------------------------|
| Trial Identification | Trial Location (City, Country/State, Year) | Туре | OM (%) | рH | CEC (meq/1400g soil) | Total Rainfall (in) | Temp Range |
| RV027-11DA | 2011 | Sandy Loam | \$\\\\$\\\\$\\\\$\\\\$\\\\$\\\\$\\\\$\\\\$\\\\$\ | 6.3 | 5 13.5 ° | 07.68 | 9 -72 W |
| RV028-11DA | , MI 2011 | Sandy Loam | 24.1 | 7.00 | 25.3 °C | \$\frac{1}{2}\frac{1}{2}\frac{1}{2} | 5985 |
| RV029-11DA | , CA 2011 | Sandy Cay Loam | © 1.2 € | 0 7.6 4 | 25.3 <u>©</u> 325.3 <u>©</u> 32.3 | 1.00 | \$26-6 5 \(\dot\) |
| RV030-11DB | , CA 2011 | Sandy Loam | \$7.6 | ₹.4 | 28.6 | \$3.48 \$ | ©7-65 |
| RV031-11HA | , FL 2011 | Sand | 7 Z | 62 | | © 1 2 °≈ | 47–73 |
| RV032-11HA | 2011 × | ` *\ '\' | 3.5 | 8.4 | 223 223 | 0.59 | 55–80 |
| RV033-11HC | , MI [©] | Mucks | \$2.5 | 3 .3 | 1900 | \$5.06 | 53–72 |
| RV034-11HA | 2011 Ô | Silty Clay | 113 | 7 (5) | 34.4 | 1.50 | 50–71 |
| RV035-11HA | , CAC | Loanysand | 0.83 | 7.3 | 7.3 | 0.67 | 49–79 |
| RV036-MA | , CA @ | Loam | 3 | Ø.8 . | 19.4 | 1.34 | 46–71 |

a Abbreviations used: %M = percent organic matter; CEC = cation exchange capacity.

Abbreviations used: MM = percent organic matter; CEQ = cation exchange capacity.

Data is for the interval of the month of first application through the month of last sampling. Meteorological data were obtained from nearby government scatter stations.



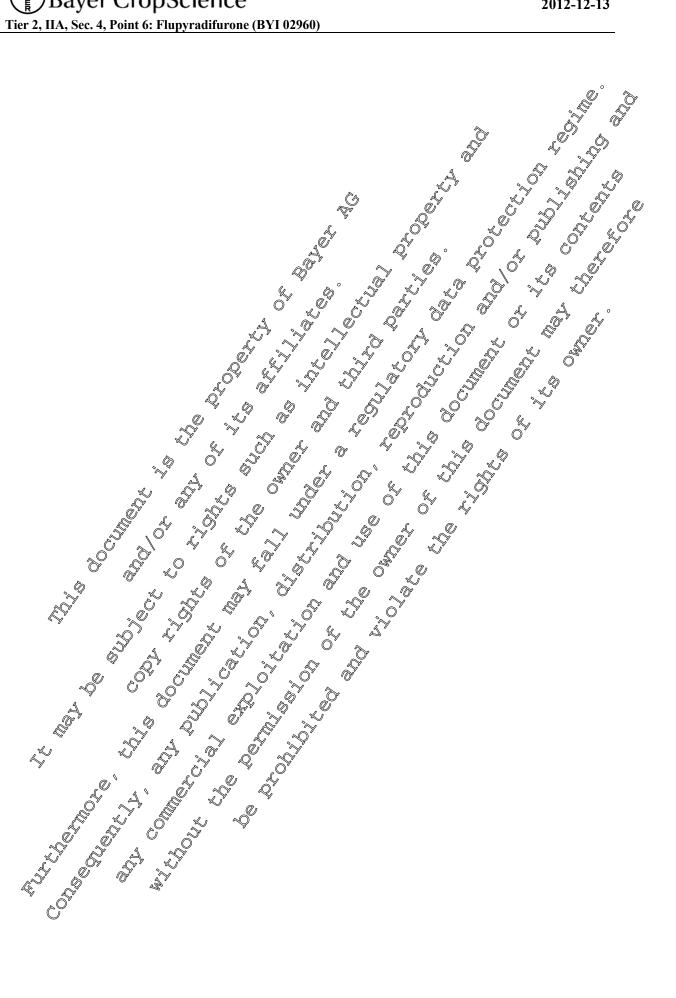
Table 6.3.2.9-4: Study Use Pattern for BYI 02960 200 SL on Celery

| | - | | Application | | | | | o l | | |
|----------------------|---|--|-------------|-------------|--|-------------------------|-----------------------------|-----------------------------|---------------------------------|---------------------|
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | | Timing/Growth Stage (BBCH) | Sprag Volume GPA (L/ha) | Rate ib a.i./A trg a.s./ha) | Refresatment Interval (dec) | Total Rate Ibas./A (kg a.s./ha) | Ank Ma Adjuvana |
| RV027-11DA | , MI, Region 5, | BYI 02960 200 SL | TRÍÐ | Folder | 45°) © | 30 (280) | 0.184 | NAC | 0.367 | COC, |
| | 2011 | | | | | 28 (266) | 0.184 | | | OC, Q1% v/v |
| RV028-11DA | Region 5, 2011 | BYI 02960 200 SL | TRYD | Føjrar S | 49 | 19Q (176) | 0.183 | NA | 0.\$70 (0.414) | NIS, 0.2% v/v |
| | | | | | \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ | (175) | © 184 © 207) | | J | NIS, 0.2% v/v |
| RV029-11DA | CA, Region 10, | BYI ©2 960 200 SL [©] | TR'TD | Føliar | 45 * | 30° (1) | 0.484 | NAª | 0.366 (0.410) | MSO, 0.25% (v/v) |
| | | | | | | 263) | 0.182 (0.204) | 7 | | MSO, 0.25% (v/v) |
| RV030-11DB | Region 100 2011 | BY192960 200 SL | ORTO O | O oliar | 0 45 | 20 (187) | 0.184 (0.206) | NAª | 0.370 (0.415) | COC, 1% v/v |
| 4 | | | | | 47 | 20 (190) | 0.186 (0.209) | 7 | | COC, 1% v/v |
| RV031-11HA | Region 5 | B¥¥02969, ∠200 SIÇ | TRTD | Foliar | 49 | 29 (275) | 0.180 (0.202) | NAª | 0.361 (0.405) | NIS, 0.2% v/v |
| | Region 5 | | | | 49 | 30 (277) | 0.181 (0.203) | 7 | | NIS, 0.2% v/v |



Table 6.3.2.9-4 (cont'd): Study Use Pattern for BYI 02960 200 SL on Celery

| | | | | | | | | | | |
|----------------------|---|-------------------------------|-----------|----------|----------------------------|--------------------------------------|---------------------------------------|-----------------------------|----------------------------------|-----------------------------|
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Methods. | Timing/Growth Stage (BBCH) | Spray Volume GPA (L/ha) | Ratesh a.i./A (kg.a.s./ha) | Refresement Interval (dagg) | Total Rate Ib 4.2/A (kg a.s./ha) | Fank Mr. Adjuvants 2 |
| RV032-11HA | , MB, Region 5, 2011 | BYI 02960 200 SL | TROD | Fotoar V | 47) 0 | 105 | 0.17 7 (0. 09 8) | NAS S | 0.358 | MSO, 0,28% (x(y)) |
| RV033-11HC | , MPS | 8YI 02960 | TRTD | Foliar | \$ 15 A | 13 (399) 26 (212) | 0 \$2 (6 204) 0 182 (9 203) | NA NA | 0369 | MSO, MSO, 9.25% (v/v) |
| | Region 5, 2011, | 2000 SL | | | * \(\tilde{\psi} \) | (2) 2) (2) 2) (2) 3 (2) 17) | | Ş | (0.414) | 1% v/v COC, 1% v/v |
| RV034-11HA | Region 5, | BY 02960 200 SL | PRTD | | . 40 | (175). | 0.183 Ø.205) | NAª | 0.369 (0.414) | NIS, 0.2% v/v |
| | | | | | 49 . | ₫19 (178) | 0.186 (0.209) | 5 | | NIS, 0.2% v/v |
| RV035-11HA | Region 10, | BY 1/02960 200 St | TRTI | Foliar | 49 | 25 (238) | 0.185 (0.208) | NAª | 0.371 (0.415) | MSO, 0.25% (v/v) |
| | | 7. | Q, | | 49 | 25 (238) | 0.185 (0.207) | 6 | 0.5== | MSO, 0.25% (v/v) |
| RV036-11HA | Region 00, 2012 | BYI 02960 200 SĽ | TRTD | Foliar | 45 | 20 (187) | 0.185 (0.208) | NAª | 0.370 (0.414) | COC, 1% v/v |
| | .A. 3 | | | | 47 | 20 (188) | 0.184 (0.207) | 8 | | COC , 1% v/v |



In the harvest trials, duplicate composite samples of celery (untrimmed) were collected at the preharvest interval (PHI) of 1 day. In the four decline trials, duplicate composite samples of celery were collected from the treated plots at 0, 1, 7, 14, 21, and 28 days after application. Single composite samples of celery were collected from the control plots on the same day the target 1 day PHI samples were collected from the treated plots.

Additional samples of trimmed celery were collected. In addition, duplicate composite samples of celery were collected from plots 1 day after application 1 (b DAA1); however, as these do not reflect the proposed use rate, the residue data from these samples were collected for informational purposes only.

The residue(s) of BYI 02960, DFA, and DFEAF were quantitated by TPLC MS/M susing stable isotopically labelled internal standards. The individual analyte residues were summed to give a total BYI 02960 residue. Residue measurements below the analyte LOQ were summed into the total BYI 02960 residue value as the analyte LOQ value.

Findings

Concurrent recoveries of BY102960, DFA, and DFDAF were measured with each set of samples to verify method performance. All recoveries were corrected for any interferences in corresponding controls. The overall mean of the recoveries for celery ranged between 74 to 102%, and the standard deviation values were below 20%. (Table 6.02.9-5)

| T 11 6222 | | | 2 D T T P P C C C | ~ V | TT @- 11 |
|------------------|-----------------|---------------|--------------------|------------|------------|
| Table 6.3.2.9-5: | Summary Summary | of Recoveries | © £BYL02960 | tcom Leatv | Vegetables |

| Crop (| An Anyalyte | Mbhin) = | Sample Size Size | R@overi&(%) | Mean Recovery (%) a | Std Dev (%) |
|-----------|--------------------|----------------|--------------------------|-------------------------------|---------------------------|-------------------|
| | | ♂0.01 © | 7 . 6 | 92,73, 114,87, 81, 83, 74 | 86 | 13.9 |
| , | B ¾ 002960√ | 0. 100 · . | 7 7 | \$1, 111, 109, 90, 77, 87, 95 | 93 | 13.3 |
| | | \$8.000 | | § § 105, 100, 101 | 102 | 2.6 |
| \$ | | 0.030 | 7 7 | 307, 91, 73, 97, 102, 96, 102 | 95 | 11.2 |
| Celer | DFA | 0.100 | | 73, 66, 71, 71, 69, 92 | 74 | 9.3% |
| | | 8,000 | \$\frac{3}{2}\frac{2}{2} | 104, 92, 101 | 99 | 6.2 |
| , i | , O | (O.010) | | 100, 80, 103, 90, 94, 94, 102 | 95 | 8.1 |
| <u> </u> | DELAF & | 0.100 | ©, 6 | 89, 101, 97, 86, 79, 97 | 92 | 8.3 |
| | | £.000 € | 3 | 95, 88, 93 | 92 | 3.7 |

a Mean Recovery = mathematical average of all recoveries

The free of storage stability study indicates that BYI 02960 residues were stable in representative crops of the respective crop group (spinach leaves and tomato fruit, high water content representatives) during frozen storage for at least 18 months (557 days) prior to analysis. The



maximum storage period of frozen samples in this study for BYI 02960 was 238 days. Additional freezer storage stability data for BYI 02960, DFA, and DFEAF in representative crops are being generated through 24 months and will be reported separately. A summary of the current storage conditions are shown in the Table 6.3.2.9-6.

Summary of Storage Conditions for Celery Table 6.3.2.9-6:

| conditions are she | own in the Table 6.3.2.9-6 | | \$ | |
|--------------------|----------------------------|---|---|---|
| Table 6.3.2.9-6: | Summary of Storage C | onditions for Celer | y | |
| | | Maximum Average Storage | Actual Storage | Interval of O |
| Residue | Matrix | Temperature (| Deration | Storage Stability 5 |
| Component(s) | (RAC) | °C | nyonths b | months co |
| BYI 02960 | Untrimmed Celery Stalk | ₹7 | → 8 © ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ | 18 (557 days) (1) |
| B11 02900 | Trimmed Celery Stalk | <-1 6 ° 25° | (% 2,78 %) (\$238 days) | (557 days) |
| DFA | Untrimmed Celery Stalk | \$ \$\int_{\inttileftinteta\int_{\inttileftittetallettileftileftileftileftileftileftileft | 8 © (23 & days) © | (557 Gays) |
| DIA | Trimmed Celery Stalk | | 238 days) | \$\times \Q18 \&\times \qquad \qquad \qquad \qquad \qquad \qqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqqq |
| DFEAF | Untrimmed Celer Stalk | ×-17 | (23 days) | 18© (557 days) |
| Drear | Trimmed Celery Stalk | ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ | 8 | 18 557 days) |

The maximum average storage temperature is from the time of sample receipt at EXP until sample extraction and is the maximum of all average freezer temperature at BRP While preparing for sample analysis, the samples were maintained in a laboratory freezer.

The storage duration is the time from first sampling through the last samp@extraction.

The total BYI 02960 residue data for celery following foliar applications of BYI 02960 200 SL are The total BYI 02960 residue data for celery following folias applications of BYI 02960 200 SL are shown in Table 6.3.2.9-7. The effect of common rood preparation practices on the total BYI 02960 residue in/on celery is summarized in the Table 6.3.2.9-8.

^{2012.} Storage stability of BYI 02960, difluoroacetic acid, and and A. difluoroethyl-amino-furanone in plant matrices. Bayer Cropscience Report 1997 RARN P046, amended version including 18-month data (KIIA 6 1/01)



Table 6.3.2.9-7: Total BYI 02960 Residue Data from Celery after Two Foliar Applications of BYI 02960 SL

| | | | | | | | | | | 0 |
|------------------------|---|--------------|------------------------|----------|--------------------------------------|-------------------|---|---|--|---|
| . Trial Identification | Location (City, State, Region, and Year) | Crop Variety | Commodity | Pot Name | Total Rafe Ib a.s./A (kg a.s./ha) | Sampling Interval | BYI 02960 B Residue (mg/kg | Dr. Residue | DFRAFResidue (mg a.s: kgqiiv./kg) | Total BY 1 02960 Residue |
| | ed Celery Stalk | | | Q | · · · | | · | - | Q | |
| RV027- 11DA | | | Untrimmed celery stalk | | | 7 14 14 27 28 | 0:100 0:100 0:100 0:485 0:320 0:330 0:157 | 0.050 0.050 0.050 0.059 0.059 0.078 0.066 0.115 0.140 | , V | 1.3 0.16 Avg: 0.73 0.68 0.54 Avg: 0.61 0.39 0.39 0.25 0.26 Avg: 0.25 0.16 0.31 Avg: 0.24 0.21 0.19 Avg: |
| RV028- 11DA | MI, Q Region 5 2011 | Green Bay | Ontrimped celery stalk | TRATO | ©370 (0.414) | 7 | 1.70 2.20 0.272 0.170 0.065 0.059 | <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 | <0.010 <0.010 <0.010 <0.010 <0.010 <0.010 <0.010 | 1.8 2.2 Avg: 2.0 0.33 0.23 Avg: 0.28 0.12 0.12 Avg: 0.12 0.089 0.070 Avg: 0.079 |
| V | 1 | | | | | | Cor | ntinued (| on next i | nage |

Table 6.3.2.9-7 (cont'd): Total BYI 02960 Residue Data from Celery after Two Foliar Applications of BYI 02960 SL

| | | BY1 0296 | UBL | | | | | | | 0 |
|----------------------------|---|-------------------|------------------------------|----------|--------------------------------------|-------------------|------------------------------------|------------------------------------|---------------------------------------|--------------------------|
| Trial Identification | Location (City, State, Region, and Year) | Crop Variety | Commodity | Pot Name | Total Rafe Ib a.s./A (kg a.s./ha) | Sampling Interval | BYI 02960 Residue (mg/kgg | DRA Residue (mg a.S. equiv./kg) | DF KAF Residue (mg a.s: eguiv./kg) | Total By 1029 () Residue |
| Untrimm | ed Celery Stalk | | | | | y | , Q | · | J Q | |
| RV028- 11DA (cont'd) | , MI, Region 5, 2011 | Green Bay | Untrimmed celery stalk | TRTA | 0.370 | | 0.010 0.010 50.010 50.010 | 9.050 0.050 9.050 20.050 | © 0.010 <0.010 | 0.070 0.070 |
| | | \$ | | | | | | | | Avg: 0.070 |
| RV029- 11DA | , CA, Region 10, 2011 | Command | Unfrimme | *** | 0.266 (6.410) | | i Ca | ©0.050 <0.056 | 0.023 | 3.8 2.5 |
| | | | Celery static | | | | 2.31 | \$0.050 \$0.050 | 0.021 0.020 | Avg: 3.2 2.4 2.5 |
| | | | | J 7 | | | \$\frac{2.43\tilde{3}}{\tilde{3}} | <0.050 | 0.020 | Avg: 2.4 |
| | | | 4 | | | | 1.57 | <0.050 | 0.019 | 1.6 Avg: 1.3 |
| | | Congnistade | | | | ↑14 ○ | 0.675 0.673 | <0.050 <0.050 | 0.012 0.011 | 0.74 0.73 Avg: |
| | | | | | | 21 | 0.545 0.596 | <0.050 <0.050 | 0.010 <0.010 | 0.74 0.60 0.66 |
| | | | | | | 28 | 0.455 | <0.050 | <0.010 | Avg: 0.63 |
| 4 | | | | | | 26 | 0.367 | <0.050 | <0.010 | 0.43 Avg: 0.47 |
| RV030- 11DB | , CA, Region 40, 2011 | Conginistado r | Untriponed celery | TRTD | 0.370 (0.415) | 0 | 4.25 3.20 | <0.050 <0.050 | 0.025 0.020 | 4.3 3.3 Avg: |
| | | | Somm | | | 1 | 3.15 3.17 | <0.050 <0.050 | 0.024 0.024 | 3.8 3.2 3.2 |
| | 54 | | | | | | | | | Avg: 3.2 |

Table 6.3.2.9-7 (cont'd): Total BYI 02960 Residue Data from Celery after Two Foliar Applications of BYI 02960 SL

| | | D110290 | | | | | | | | 0 . |
|----------------------------|---|-------------------|---|-----------|-------------------------------------|---|---------------------------|--|--|---|
| Trial Identification | Location (City, State, Region, and Year) | Crop Variety | Commodity | Plot Name | Total Rak Ib a.s./A (kg a.s./ha) | Sampling Interval | BYI 02960 Residue (mg/kg) | Dra Residue (mg a.S. equiv./kg) | DFKAFResidue Amg a.s: <quiv. kg)<="" th=""><th>Total BVI 02960 Residue</th></quiv.> | Total BVI 02960 Residue |
| Untrimm | ed Celery Stalk | | | 2 | | y ` | , Q | | | |
| RV030- 11DB (cont'd) | CA, Region 10, 2011 | Conquistado r | Untrimmed celery stalk | TRTD | | # A A A A A A A A A A A A A A A A A A A | 0.366 0.366 | 0.050 0.050 0.050 0.050 0.050 0.050 | , V | 1.6 1.9 Avg: 0.74 1.2 Avg: 0.99 0.64 0.43 Avg: 0.53 |
| RV031- | FL | Tango (| Untrimmed | F 5 |) (| | 0.2935 \$ \$1.67 | <0.050 <0.050 | <0.010 | 0.35 Avg: 0.34 1.7 |
| 11HA RV032- | Region 3, 9 | | celeov stark Antrimmed | TREFD | O" & | ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ | 2.56 1.79 | <0.050 | 0.016 | 2.6 Avg: 2.2 |
| 11HA | Region 5, 2011 | | celerý Salk « | ~ ~ | | | 2.11 | <0.050 | 0.016 | 2.2 Avg: 2.0 |
| RV033- 11HC | Region 5, | | Ontrimmed celery stalk | | ©369 ©.414) | 1 | 0.974 1.20 | <0.050 <0.050 | | 1.0 1.3 Avg: 1.1 |
| RV034- | MB, Region 5, 2011 | UtaQ Salt Lake | Untringued celoty Stalk Untringued celery | ŤŖŤD | 0.369 (0.414) | 1 | 3.65 3.37 | <0.050 <0.050 | 0.027 0.022 | 3.7 3.4 Avg: 3.6 |
| RV035- 11HA | Region 10, | | ≪©stalk | | 0.371 (0.415) | 1 | 6.68 5.29 | 0.064 0.058 | 0.054 0.046 | 6.8° 5.4 Avg: 6.1° |
| RV036- | , CA, Region 10, 2012 | Sonora | Untrimmed celery stalk | TRTD | 0.370 (0.414) | 1 | 2.15 2.19 | <0.050 <0.050 | 0.038 0.029 | 2.2 2.3 Avg: 2.2 |

Total BYI 02960 Residue Data from Celery after Two Foliar Applications of Table 6.3.2.9-7 (cont'd): BYI 02960 SL

| | | BY10296 | UBL | | | | | | | 0 |
|----------------------|---|-----------------|----------------------------|------------|--------------------------------------|-------------------|-------------------------------|-----------------------------------|---------------------------------------|---------------------------|
| Trial Identification | Location (City, State, Region, and Year) | Crop Variety | Commodity | Plot Name | Total Rafe Ib a.s./A (kg a.s./ha) | Sampling Interval | BYI 02960 Residue (mg/kgg) | DR Residue (mg a.S. gquiv./kg) | DFKAFResidue (mg a.s:keguiv./kg) & | Total By 1 02% Residue |
| Trimmed | Celery Stalk | | | Q0" | | y ` @ | | | | |
| RV027- | , MI, | Tall Utah | Trimmed | TRTD | 0.36 | **L) | Q.J.06 | 20.050 | ×0.010° | 0.17 |
| 11DA | Region 5, 2011 | | celery stak | | (0.3412) (0.3412) | | 1 07.109 | 0.050 | <0.010 | 0.17 A g: |
| RV028- | , MI, | Green Bay | Trimmed | TRTD | 0.300 | | 0.138 | 3 0.050 | ⊗ 0.010≥ | 0.20 |
| 11DA | Region 5, | (| Olery stalk | TRTD | (0.414) | | 0.133 | ₹ 0.05 € | <0.010 | |
| | 2011 | Ţ, | \(\text{\text{\$\sigma}}\) | . ~ | | | | | | Avg: 0.20 |
| RV029- 11DA | , CA, | Command | Trimmed | TRIO | 0.366 (6.410) | | 0.280 | ©0.050 <0.056 | <0.010 <0.010 | 0.38 0.34 |
| IIDA | Region 10, 2011 | | celery stalk | ٦. | (0 8410) | | 0.280 \ \ \ \ \ \ | 0.0.20 | <0.010 | Avg: |
| | 2011 | | | | | | | | | 0.36 |
| RV030- | | Conquistado | Trimmed | TRÆÐ | 0.370 (0.415) | | ×0.582 g | \$0.050 | < 0.010 | 0.64 |
| 11DB | CA, | Conquistado | elery stalk | TRADO | (0.415) | X & | 0.841 | 0.050 | 0.010 | 0.90 |
| | Region 10 | | | Š ž | Y " | f o' | \$ | | | Avg: |
| DV/021 | 2011 | (V) (V) (V) (V) | Time | TDASA | 0827.1 | | @ @ 0(2 | <0.050 | <0.010 | 0.77 |
| RV031- 11HA | , FL, | Tango (| Trimmed Celery | TRAD | 0361 (0.405) | | 0.862 0.541 | <0.050 <0.050 | <0.010 <0.010 | 0.92 0.60 |
| 111174 | Region 3, © | | celery@eaf | | 0.403 | * | 0.541 | <0.030 | <0.010 | Avg: |
| | <u> </u> | | 4 % | ' | 0. | | | | | 0.76 |
| RV032- | Š, | h ƙNUÆV | Frimmed | TRFD | 1003 58 | ≫1 | 0.066 | < 0.050 | < 0.010 | 0.13 |
| 11HA | MB, | | čelery stalk | · | (0.402) S | * | 0.035 | < 0.050 | < 0.010 | 0.095 |
| | Region (5) | 4 5 | | | ه ۱ | | | | | Avg: 0.11 |
| RV033- | | Talkotah | Or rimmed | TANTD | Q 369 | 1 | 0.045 | < 0.050 | < 0.010 | 0.11 |
| 11HC | Region 5, 2011 | Tall Stah | celery@talk | . Oʻ | (0.414) | 1 | 0.101 | < 0.050 | | 0.16 |
| | 2011 | | | | | | | | | Avg: |
| | | | | ~ ~ | | | | | | 0.13 |
| KV034- | | Utaby Salt | Trimmed | TR.TD | 0.369 | 1 | 0.742 | <0.050 | <0.010 | 0.80 |
| IIHA | MB, | Lake | ceierystalk | N N | (0.414) | | 0.743 | < 0.050 | < 0.010 | 0.80 Avg: |
| | 2014 (| | | 1 | | | | | | 0.80 |
| RV035- | , CA, \ | Sonora «C | Trimmed | TRTD | 0.371 | 1 | 0.749 | < 0.050 | 0.011 | 0.81 |
| 11HA | Region 10 | | celery štalk | | (0.415) | | 0.828 | < 0.050 | < 0.010 | 0.89 |
| | MB, Region 5, 2014 Region 40, 2017 | | Ą | | | | | | | Avg: 0.85 |
| 4.1 | y S A | | | | | | Con | ntinued | on next | <u>—</u> па о е |
| | | | | | | | COI | Cu (| on near j | ouge |
| | | B. | | | | | | | | |
| |) · | | | | | | | | | |
| | | | | | | | | | | |

Table 6.3.2.9-7 (cont'd): Total BYI 02960 Residue Data from Celery after Two Foliar Applications of BYI 02960 SL

| Trial Identification | Location (City, State, Region, and Year) | Crop Variety | Commodity | Plot Name | Total Rate Ib a.s./A (kg a.s./ha) | Sampling Interval (day D | BYI 02960 Residue (mg/kg) | Dr. Residue (mg a. Cequiv./kg) | DFKAFResidue Amg a.s: eguiv./kg) | Total BYI 02960 Residue? |
|----------------------|---|--------------|--------------|-----------|--------------------------------------|-----------------------------|---------------------------|-----------------------------------|-------------------------------------|--------------------------|
| Trimmed | Celery Stalk | | | QQ" ' | | y | ? Q | \O' | J Ö | |
| RV036- | , CA, | Sonora | Trimmed | TRTD | 0.3.70 | **L** | Q.526 | 20.050 | ×0.010° | 3 .59 |
| 11HA | Region 10, | | celery stalk | | (0.414) | | 1 0.386 a | ₹ 0.05 Q | <0.010 | 0.45 。 |
| | 2012 | | | | Õ , | Ŗ "A | | | | Avg: |

- a Sampling interval is the interval between la Capplication and Carvest date.
- b Total BYI 02960 residue is the sum of BY 02960 DFA, and DFFQ residues in parent equivalents. Residue measurements below the analyte LOQ were summed into the total BYI 02960 residue value as the malyte LOQ value. These totals represent the upper limit of what the residue level Unight to
- c Maximum residue found in untripured colery stalks at PHI
- d HAFT residue found in untrimmed celery stalks PHI

Table 6.3.2.9-8: Effect of Processing on Total BV 02967 Residue in/on Celes

| Plot Name | | PHI | e-Harvest Processing Factor a Average Process |
|-----------|--|---|---|
| TDTD | Untommed Celery Stalk (AAC) Trimmed Celery Stalk | $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | NA NA Trimmed Celery St 0.270.70, 0.15, 0.24, 0.35, 0.06, 0.12, 0.22, |

- a The processing factor for total BYI 02960 was calculated by comparing the total BYI 02960 residue in the residue reduction sample with the total BXI 02960 residue to the raw agricultural commodity (RAC) matrices.
- b NA = Not applicable

Conclusion

Ten field trials were conducted to measure the fragnitude of total BYI 02960 residues in/on celery following two broadcast foliar spray applications of BYI 02960 200 SL. The total BYI 02960 residue data are sumparized in Table 6.3.29-9.

Total BY 02960 residue in unfrimmed celery generally declined with time; the peak residue was always detected at the PHI of 1 day. Trimming celery decreased the total BYI 02960 residue by an average processing factor of 0.25X.

The residue data provided for celery are suitable for regulatory purposes.

Table 6.3.2.9-9: Summary of Residue Data for Total BYI 02960 from Celery

| | | | | | | Total BY | T 02960 F | Residue 1 | Levels (p | pm) | > |
|----------------------|-------------------------------------|--|-------------------------------|---|---------------|---------------|------------------|-----------|-----------|--------------|--------------------|
| Commodity | Plot Name ¹ | Total Application Rate lb a.s/A (kg a.s./ha) | PHI (days) | u | Min at PHI | Max at PHI | Max after PHI | HART 2 | Median 3 | Mean Man | Standard Deviation |
| Celery untrimmed | TRTD | 0.358 to 0.371 (0.402 to 0.415) | 1 | 10 | 0.23 | 6.8 | | 6.1 | | 3 2.3 | [©] 1.7 |
| 1 TRTI 2 HAF 3 calcu | D = treated Γ = Highes lated on th | no.358 to 0.371 (0.402 to 0.415) plot receiving two first Average Field Trize e basis of residue value of the state of th | Toliar spray all lives at the | PHI A A A A A A A A A A A A A A A A A A A | | | | | | | 1.7 |



IIA 6.3.2.10 Pulses, dry - beans and peas

Residue data from NORTH AMERICA

BYI 02960 is to be registered in USA and Canada for use as a foliar treatment in on legume vestables (except soybean); (Crop Subgroups 6C). The use pattern in North America is summarized in Table 6.3.2.10-1.

A total of twenty trials were conducted in dry pulses. The studies are described below

Table 6.3.2.10-1: Target Use Patterns for the Application of BYQ02960 on Legume Vegetables (Except Soybean) in North Application of BYQ02960 on Legume Vegetables

| | | | Rat | e/Application Spray Vol | lume |
|------------------------|--------------|------------|--------------------|--|----------|
| Test Subs. | No. of Apps. | | ulated uct (fp) | Active Substance (a.s.) Active Substance (a.s.) App. PHI Additive GPA FE |) PHA |
| Subsi | търрог | fl oz/A | mL/ha | Name Days Days Days Days Days Days Days Days | тпа |
| BYI 02960 SL 200 | 2 | 14.0 | 1025 | BYI 0.183 205 10 7 0 055 10-30 94 | -282 |

GPA = gallonsper acre LPHA = liter per hectare

| Report: | KOTA 6.32.10/01/; E.L., and D. L., 2012 |
|---------------------------------------|--|
| Title: | BYI 02960 200 L - Magnitude of the Residue In/on Dried, Shelled Pea and Bean (Except |
| | Soybean), Foliage of Legume Vegetables (Except Soybean), (CG 6C and 7A). |
| Report No & | RARVY028, dated June 20, 2012 2012 |
| Document No | ₩-4332 60 -01-1 |
| Guidelines | US: RPA Residue Chemistry Test Guideline OPPT 860.1500, Crop Field Trials |
| EG" | Capada: PORA DACO 7.41, Supervised ResiduO Trial Study |
| \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | PMR DACOO.4.2, Residue Decline |
| | OECD: Guidelines for the Testing of Chemocals, 509, Crop Field Trial, |
| Q _j | Adopted Sept. 7, 2009. F |
| GLP © | Yes O N O |

Twenty field trials were conducted to measure the magnitude of BYI 02960 residues in/on dried, shelled pea and bean (except soybean), and foliage of legume vegetables (except soybean) following two broadcast foliar spray applications of BY 02960 200 SL. BYI 02960 200 SL is a soluble concentrate formulation containing 200 g BYI 02960/L. The number and location of field trials conform to the guidance given by the EPA (Table 6.3.2.10-2). Since foliage of legume vegetables is not imported into Europe, this dessier will focus on dried, shelled pea and bean, only. Complete information on the study, including the data on foliage of legume vegetables, was submitted in the Global Joint Review Subtrassion in October 2012.

Table 6.3.2.10-2: Trial Numbers and Geographical Locations for BYI 02960 in/on dried, shelled pea and bean (except soybean)

| | | D I D. | | | D.: 1 D | (| D° 7 |
|---------|-----------|---------------|-------|------------|--------------------|--------------|------|
| NAFTA | | Dried Peas | | | Dried Beans | | |
| Growing | Submitted | Requ | ested | Submitted | Requ | iested 5 | |
| Region | Submitted | EPA | PMRA | Submitted | EPA | PMRA | |
| 1 | | | | | 4 | | 7 |
| 2 | | | | <i>≥</i> 0 | | | |
| 3 | | | | | Ü , | | |
| 4 | | | 4 | , Ő | | | |
| 5 | 1 | | 1 4 | 4 🗳 | & 4 L | 40 | LO" |
| 6 | | | Q Q | ~ · | | | D' |
| 7 | | | W Ö | | | | |
| 7A | | | | | | | K° |
| 8 | | × | | | | | |
| 9 | | | | | | | |
| 10 | | | | J 10 . | | | |
| 11 | 5 | Q b | | | | | |
| 12 | | | | | 9, 9 | & | |
| 13 | | | 8 4 | | | | |
| 14 | 4 | | | | | | |
| TOTAL | 10 🔬 | \$ 5 6 | 5 5 | , O 10 kg | , | 5 | |

a Eight trials (4 pea and 4 bean) were decline trials. The additional frials were performed to freet EU guidelines. The suggested regional distributions for ten pea and ten dried beautiful are shown. The required number of trials for Crop Subgroup 6C and A and the actual placement and number of trials in this study are provided.

Material and Methods

Individual foliar application rates ranged from 0.4.79 to 0.188 lb BYI 02960/A/application (0.200 to 0.211 kg BYI 02960/ha/application). Seasonal total application rates ranged from 0.361 to 0.375 lb BYI 02960/A (0.404 to 0.420 kg BYI 02960/ha). Reliar applications to plot TRTP2 for the collection of seed from peas were made at BBCH 72 to 88 CBCH 72; 20% of pods have reached typical length; juice exudes if pressed, BBCH 88, 80% of pods ripe, seeds final colour, dry and hard). The interval between the foliar application was 8 to 10 days. Foliar applications to plot TRTB2 for the collection of hav and seed from bean darget 7 day PHI) were made at BBCH 70 to 89 (BBCH 70; first pods visible, BBCH 89; Fully ope: pods ripe (bean hard). The interval between the foliar applications was 8 to 10 days.

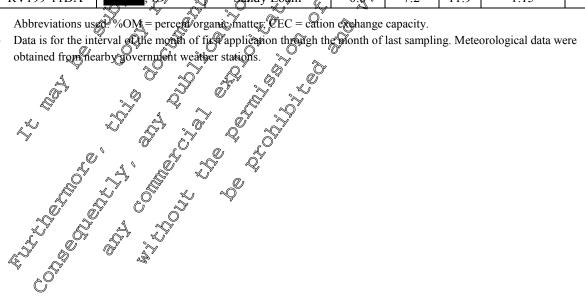
All foliar applications were made using ground-based equipment. One adjuvant used was used in all of the applications and was either NIS (non-ionic surfactant) at a target of 0.2% (v/v), MSO (methylated seed 0.2% at a target of 0.25% (v/v) or COC (crop oil concentrate) at a target of 1.0% (v/v).

Trial Site conditions, including soil characteristics are summarized in Table 6.3.2.10-3. Study use patterns are summarized in Table 6.3.2.10-4.

Table 6.3.2.10-3. Trial Site Conditions for BYI 02960 on dried, shelled pea and bean (except soybean)

| Trial | Trial Location | Soil Cha | racteristi | csa | | Meteorolog | ical Data |
|--------------------------|-----------------------------------|------------------|----------------|----------------------|-------------|-------------------------|------------------------|
| I riai Identification | (City, Country/State, Year) | Туре | ОМ | pН | CE | Total (Total (Tin) | Temp. Range (°F) |
| RV180-11HA | , ON | Loam | 3.3 | 7.3 | 11 | , 5 ⁹ 54 , & | 57 5 82 |
| RV181-11HA | , ID | Sandy Loam | \bigcirc 0.8 | 72 | 11.9 | 0.64 | \$3-90@ |
| RV182-11HA | , ID | Loam | 2.1 | <u>8</u> .1 | 21.8 😸 | 0,40 | ¥ 47- 90 |
| RV183-11HA | ID | Sandy Loang | 1.8 | Ž 7.5 ° | 25C | ر 0.89 | 48-97 |
| RV184-11HA | , SK | Loam | 4.51 | <i>5.</i> 9 2 | 15.5 | \ [©] 7.07\$ | 2 49-77 |
| RV185-11HA | SK | L9am J | #.86 @ | 7.53° | 20. | 3.35 | گر 49-77 |
| RV186-11DA | , WA | Sandy Loam | 1,1 | A 2 | 2 .6 | 0.73 | 2 48-87 |
| RV187-11DA | , OR | Sandy Loam O | , 5 <u>,</u> 2 | 6 5.7 L | ¥14.2.Ç | * 44 0 & | 45-82 |
| RV188-11DA | , SK | SAL loam | \$ 5.6 ® | 6.43 | 1505 | \$3.55 ₆ | 42-77 |
| RV189-11DA | , SK Q | Loam | 4.90 | 835 | \$1.2 (| 3:55 | 42-77 |
| RV190-11HA | , O | Silt Loam S | Q .3 | Q 5.7 | 16% | 4 .1.79 | 41-84 |
| RV191-11HA | K\$ [©] & | Silty Clay Loam | 3.74 | 5 | ₽8.4 | 9.08 | 66-96 |
| RV192-11HA | ØN [○] | Sandy Clay Loam | 4.2 | £6.5 × | 21.2 | ຶ້ 11.50 | 49-84 |
| RV193-11HA | , AB | i Kam Si . | Ž.27 & | | .100 | 3.25 | 34-81 |
| RV194-11HA | TX | San Cy Clay Doam | 0,2 | ©7 | 40 | 0.01 | 71-101 |
| RV195-11HA | | Lown 2 | 3 2.1 | 8.1 | 21.8 | 0.31 | 51-91 |
| RV196-11DAO | , IA | Silty Clay Loam | 4.1 | 6.6 | 22.1 | 19.50 | 40-90 |
| RV197-11DA | , ND Ø | Clay Loam | 3.3 | J.7 | 18.3 | 11.54 | 39-83 |
| RV198-CYDA | , CAÇ | Sandy Loan | ~ Ø.55 ^ | % 6.3 | 4.9 | 1.69 | 40-93 |
| RV199-11DA | , ID/ | Sandy Lean | 0.8 | 7.2 | 11.9 | 1.15 | 46-90 |

Abbreviations used %OM = percent organic matter; CEC = cation exphange capacity.



Study Use Pattern for BYI 02960 200 SL on dried, shelled pea and bean (except Table 6.3.2.10-4: soybean)

| | | | Application | | | | | | | | | |
|----------------------|---|----------------------------------|-------------|---------------------------|----------------------------|---------------------------------|------------------------|----------------------|------------------|-----------------------|--|--|
| | 'ear) | | | | Ap | piication | * | | | | | |
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Method | Timing/Growth Stage (BBCH) | Actual Spray Volume GPA (Da) | Rate Ib a.s./A (kg & A | Retreathent Interval | KAPC Ib a.S./A | Tank Mix Adjuyants | | |
| Peas, dried | | | | | | | , O (| <i>></i> / | | Ž | | |
| RV180-11HA | , ON, Region 5, 2011 | BYI 02960 200 SL | TRTP2 | Broad- cast | | ~~ " | | | 0.365 | NIS, 0.20 % v/v | | |
| | | | | | 85 N | 16 (146) | 0.180 | 90 | | 0.20 % v/v | | |
| RV181-11HA | ID, So Region 1 1, 2014 | BYI 02969 200 SL | TRTE | Broad- Ocast Foliar | BBCHC 77 | 17. (162) | 0.184 (0.206) | NA S | 0.367 (0.412) | NIS, 0.20 % v/v | | |
| | | | ~~~ | | BBCH 8 | (451) | (0.1883 (0.205) | 10 | | NIS, 0.20 % v/v | | |
| RV182-11HA | (201) Region kl, 2010 | BYI © 02960 200 | TREF2 | Bread- Cast foliar | BBCH 86 | 22 (202) | 0.183 (0.205) | NA | 0.370 (0.415) | MSO, 0.25 % v/v | | |
| | \$' 4 | | | I . Oʻ | 100 | 23 (212) | 0.187 (0.210) | 9 | | MSO, 0.25 % v/v | | |
| RV183-11HA | ID Region 11, | BXV 02960 200 SL | TRIP2 | Broad çastı falfar | BBCH 80 | 25 (235) | 0.184 (0.207) | NA | 0.368 (0.413) | COC, 1% v/v | | |
| , y | | | | | BBCH 84 | 25 (234) | 0.184 (0.206) | 10 | | COC, 1% v/v | | |
| | | | | | | | Conti | nued (| on next po | ige | | |

Table 6.3.2.10-4 (cont'd): Study Use Pattern for BYI 02960 200 SL on dried, shelled pea and bean (except soybean)

| | | ехсері sc | , | | | | | | | · · · · · · · · · · · · · · · · · · · |
|----------------------|---|----------------------------------|-----------|--------------------------|-------------------------------|---------------------------------|-------------------------------|----------------------|--|---------------------------------------|
| | ar) | | | | Ap | plication | l | | | |
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Method | Timing/Growth Stage (BBCH) | Actual Spray Volume CPA (Du) | Rate lb a.s./A (kg & A.s./ha) | Retreatment Interval | Total Rate ib a.s./2 (1898./ha) 28, | Tank Mix Adjuyants |
| Peas, dried | | Г | | | | °~, | | | | Ÿ |
| RV184-11HA | SK, Region 14, 2011 | BYI 02960 200 SL | TRTP2 | | JSBCH 4 | A. 7 | | NA O | (0.369 (0.454) | NIS, |
| | | | | | | 12 5 | | | | 0.20 % v/v |
| RV185-11HA | SK, Region 14, | BYIN 02960 2000 SL | TROZ | foliar | BBCH 79 | (108) V (4) | 0. \$2 (\$204) \$ | NA | 0.366 (0.410) | COC, 1% v/v |
| Ö | | | | | | \$\frac{12}{(109)}\bigg\{} | Ø.183 (0.206) | 9 | | COC, 1% v/v |
| RV186-LDĎA | Region 114 | ©YI ©2960 200 200 | FRTP2 | Afoliar (4 | ^ | | 0.185 (0.207) | NA | 0.368 (0.413) | NIS, 0.25 % v/v |
| | 2011 | | | | ₿ ВСН 82 | 20 (187) | 0.184 (0.206) | 10 | | NIS, 0.25 % v/v |
| RV187-11DA | Region 19, | BYI 02960 200 SL | TRJP2 | Broad- cast foliar | BBCH 79 | 20 (188) | 0.184 (0.206) | NA | 0.370 (0.414) | COC, 1% v/v |
| | | | Q Q | | BBCH 81 | 21 (192) | 0.186 (0.208) | 10 | | COC, 1% v/v |
| | | | | | | | Conti | nued | on next po | nge |

Continued on next page...

Table 6.3.2.10-4 (cont'd): Study Use Pattern for BYI 02960 200 SL on dried, shelled pea and bean (except soybean)

| | | | | | | | | | | <i>0</i> , |
|----------------------|---|----------------------------------|-----------|---------------------------|----------------------------|-------------------------------------|-----------------------------|----------------------|----------------------|--|
| | ar) | | | | Ap | plication | | | | |
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Method | Timing/Growth Stage (BBCH) | Actual Spray Volume GPA (Pus) | Rate lb a.s./A (kg A.s./ha) | Retreatment Interval | Total Racylly a.s./A | TankMix Adjuyants |
| Peas, dried | | | | | | | · · · · · · | | | Ÿ |
| RV188-11DA | SK, Region 14, 2011 | BYI 02960 200 SL | TRTP2 | Broad- cast Soliar | | | | | 0.366 (0.450) | MSO, Q.25 % v/v |
| | | | | | | 12 (114) | 0.18 | 1000 5 | | 0.25 % v/v |
| RV189-11DA | SK, SRegion 124, 2014 | BYI, 02960 200 201 | TRIPE | Broad- Ocast Foliar | BBCHC 79 | 12 (108) (108) 12 (111) | \sim $^{\times}$ | NA S | 0.366 (0.410) | COC, 1% v/v COC, 1% v/v |
| | | | | | | y K | | | | V/V |
| Beans, dried | O . | , Q | 4 % | | y 0 | 4 | | • | | |
| RV190 LIJIA | Q. (4), , , , , , , , , , , , , , , , , , , | ©2960 206 206 | FRTB2 | Bræd- Gast Goliar | BBCH 80 | 20 (185) | 0.183 (0.205) | NA | 0.366 (0.411) | NIS, 0.20 % v/v |
| Ą | | | | | BBCH 86 | 19 (179) | 0.183 (0.206) | 10 | | NIS, 0.20 % v/v |
| RV191-Ĭ1HA | KS, Region S, 2014 | BY(02960 200 SL | TRJB2 | Broad- cast foliar | BBCH 70 | 16 (147) | 0.185 (0.207) | NA | 0.365 (0.409) | MSO, 0.25 % v/v |
| RV191-11HA | | | Q | | BBCH 75 | 15 (143) | 0.180 (0.202) | 9 | | MSO, 0.25 % v/v |

Table 6.3.2.10-4 (cont'd): Study Use Pattern for BYI 02960 200 SL on dried, shelled pea and bean (except soybean)

| | | | | | | | | | 6 | <u>v</u> |
|---------------------------------------|---|---|-----------|-------------------------------|-------------------------------|-----------------------------------|--------------------------------------|----------------------|-----------------------|--|
| | ar) | | | | Ap | plication | | 1 | | |
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | potpog | Timing/Growth Stage (BBCH) | Actual Spray Volume (CPA (PMs) | Rate lb a.s./A (kg All) | Retreaspont Interval | Total Rate lb a.s./A. | TankMix Adjuyants |
| Beans, dried | | | | | · Ø | | , O * | <i>></i> | | A A |
| RV192-11HA | MN, Region 5, 2011 | BYI 02960 200 SL | TRTB2 | | BBCH BBCH BBCH 82 | 20 (190) 21 (195) | 0.184 (0.206) 0.186 (0.208) | NA 9 | 0.370 (0.453) | COC, \$1\% \$\vert \vert |
| RV193-11HA | AB, Region 7 | 8YI 02968 200 2U | TRTPS | Broad- Fast Foliar | BBCH (8) 81 | | (0.206) S | NO G | 0.368 (0.413) | NIS, 0.20 % v/v |
| | | | | | | (/) ~ | | 10 | | NIS, 0.20 % v/v |
| RV195-11HA | ID, Region V, | ○ BYI ○ 029 6 0 2 9 0 5 SL | TR*B2 | Broad- y cast of foliar | | 22/ (20 6) | 0.184 (0.206) | NA | 0.369 (0.414) | MSO, 0.25 % v/v |
| | | | | | 8 8 | 22 (206) | 0.185 (0.208) | 8 | | MSO, 0.25 % v/v |
| RV196-11DA | IA, Region 5, | BYV 03960 2200 SL | TANTB2 | Broad Cast | BBCH 83 | 21 (196) | 0.184 (0.206) | | 0.370 (0.414) | NIS, 0.20 % v/v |
| , , , , , , , , , , , , , , , , , , , | | | | 7 | BBCH 87 | 23 (212) | 0.186 (0.208) | | | NIS, 0.20 % v/v |
| RV197-110A | ND, Region 7, | BYI 02960 ₹ 200 SL | TRTB2 | Broad- cast foliar | BBCH 80 | 15 (144) | 0.188 (0.211) | NA | 0.374 (0.419) | MSO, 0.25 % v/v |
| | | | | | BBCH 87 | 15 (144) | 0.185 (0.208) | 9 | | MSO, 0.25 % v/v |



Continued on next page...

Table 6.3.2.10-4 (cont'd): Study Use Pattern for BYI 02960 200 SL on dried, shelled pea and bean (except soybean)

| | | 1 | 1 | | | | | | | |
|----------------------|---|----------------------------------|-----------|---------------------------|---------------------|--------------------------------------|--------------------|----------------------|--|--|
| | ar) | | | | Ap | plication | | | | |
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Wedley Wedley | Timing/Growth Stage | Actual Spray Volume | Rate lb a.s./A (kg | Refreatment Interval | Rate Opa, S./A & Galler & Gall | Tank Mar Adjukants |
| Beans, dried | | | Q | | w w | | | \$ | *\\ 4 | i [*] |
| RV198-11DA | CA, Region 10, 2011 | BYI 02960 200 SL | | Broad- | BBCH. 73 8BBCM. 89 | 26 (187) Q | | | 0.363 (6.409) | © 0°C, 0° 1% v/v COC, 1% v/v |
| RV199-11DA | ID, A Region 11, 2601 | 2000 SL & | TROB2 | Broad- casty fother | BBCH BBCH | 17 (148) (148) (17 (159) | 9.181 (0.202) | ¶A 10 | 0.361 (0.405) | NIS, 0.20 % v/v NIS, 0.20 % v/v |

a NA = Not applicable.

From the treated plots, duplicate composite samples were cut at pre-harvest intervals (PHIs) ranging from 5 to 7 days (intended PHIs 1 days). In four pea decline trials, duplicate composite seed samples were collected from the treated plots at 0. For 7, 12 or 14, 20 or 21, 28, and 35 days after the last treatment. In four bean decline trials, seed samples were cut at 0, 7, 12 to 14, 21, 27 or 28, and 33 or 35 days after the last sampling

Single composite seed samples were cut in the control plots on the same day that the target 7-day PHI samples were cut in the treated plots.

The residue of BYI 02960, DFA, and DFEAF were quantitated by HPLC-MS/MS using stable isotopically labelled internal sandards. The individual analyte residues were summed to give a total BYI 02960 residue. Residue measurements below the analyte LOQ were summed into the total BYF 02960 residue value as the analyte LOQ value.



Findings

Concurrent recoveries of BYI 02960, DFA, and DFEAF were measured with each set of samples to verify method performance. All recoveries were corrected for any interferences in corresponding controls. The overall mean of the recoveries for each matrix was within the acceptable range of 0 to 110%, and the standard deviation values were below 20%. (Table 6.3.2.10-5).

Table 6.3.2.10-5: Summary of Recoveries of BYI 02960 from Pea and Rean

| | | | | | <u> </u> | ~~~ |
|----------------|-----------|----------------------|-----------------------|---|------------------|------------------|
| Crop Matrix | Analyte | Spike Level | Sample Size (n) | Recoveries (%) | Mean Recovery | ₩d Dev (%) |
| | | (ppm) | (11) | | (/0)* | (/000) |
| | BYI 02960 | 0.010 | 16 | 70, 77, 96, 85, 79, 95, 83, 81, 5 107, 78, 93, 108, 99, 66, 74, 60 | 84 6 | aA |
| | | 2.0 | 3 | 205, 92,80 | 92" | 13 |
| G 1 | DFA | 0.050 | 15 | 80, 81972, 679, 66, 72, 64, 74, 70, 89, 80, 77, 65, 76 | 73 | 7 |
| Seed | | 10.0 | | \$7,9\Q3\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | | 7 |
| | | 0.010 |) 0' 017 0 | | 897 | 16 |
| | | <u>2</u> .0 <u>k</u> | E 7 | 102, 89, 104 | 98 | 8 |

a Mean Recovery = mathematical average of an recoveries.

The freezer storage stability study indicates that BYI 02960 residues were stable in navy bean seeds, a representative of the respective coop commodity (high protein content) during frozen storage for at least 18 months 558 days) prior to analysis. The maximum storage period of frozen samples in this study for BYI 02960 was 259 days. A summary of the storage conditions are shown in the Table 6 3 2 10-6.

Table 6.3.2.10-6: Summary of Storage Conditions for Pea and Bean

| Residue Component(s) Natrix Storage Temperature (°C) a | Actual Storage Duration months (days) ^b | Interval of Demonstrated Storage Stability months (days) ^c |
|---|--|--|
| BY \$02960; Pea Seed \$\sigma < -17\$ | 8 | 18 |
| | (259) | (558) |
| BYI 02960; Bean Seed V <-17 | 7 | 18 |
| DFEAF; DFA Beato Seed <-17 | (243) | (558) |

a The maximum of all average storge temperature is from the time of sample receipt at BRP until sample extraction and is the maximum of all average (reezer temperatures at BRP and ABC Laboratories. While preparing for sample analysis, the sample were maintained in a laboratory freezer.

b The storage Hiration is the Jongest interval from field sampling to completion of the first extraction.

and A. 2012. Storage stability of BYI 02960, difluoroacetic acid, and difluoroethyl-amino-furanone in plant matrices. Bayer CropScience Report No. RARVP046, amended version including 18-menth data (KIIA 6.1.1/01).

The total BYI 02960 residue data for legume vegetables (except soybean); (crop subgroups 6C) following foliar applications of BYI 02960 200 SL are shown in Table 6.3.2.10-7.

Total BYI 02960 Residue Data from Legume Vegetables (Except Soybean); Table 6.3.2.10-7: Subgroups 6C) after Two Foliar Applications of BYI 02960 L

| | | | | | | 1 | 1 | 4/2 | | | |
|-----------------------------------|---|-----------|---------------------|----------------------------|------------------------------------|----------------|----------------------------|--------------------------------|--|------------------|---|
| Trial Identification ^a | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Ommodity Market Commodity | Total Rate & Lb a.s./A (kg a.s./A) | % Dry Matter " | Samping Internal Alays) | BYT \$2960 Besidue (Pag/kg) | DFA Residue Control (Ing. ja.s. equiv./kg) | DFEARResidue | Total BX+02960 Residue (mg a.s. equiv kg) |
| Peas, dri | ed | | * 1 | | | Q, | 1 | Q. | 0 | | Ũ ^Y |
| RV180- 11HA | , Region 5, 2011 | TRTP2 | Meadow | Seed | 0.365 0.4091 | \$1.44 | | 9.578 0.75 0 | 0.251 | <0.010 <0.090 | 0.839 1.08 Avg: 0.962 |
| RV181- 11HA | , ID, Region 11, 2011 | TRTP | Progress No. 9 | Seed (| 0.367 (0.412) | 88.70 | J (| 0.510 | 0.220 0.123 | <0.010 <0.010 | 0.741 0.516 Avg: 0.629 |
| RV182- 11HA | Region 1 201 | TRT | FMK 888- | Seed | 0.378 (0.315) | 92009 | | 0.0195 0.0138 | <0.050 <0.050 | <0.010 <0.010 | 0.0795 0.0738 Avg: 0.0767 |
| RV183- 11HA | Region 11, 2011 | TKTP2 | Austrian Winter Pea | Seed | 0.413) (0.413) | 99.58 . | L F | 1.47 0.860 | 0.635 0.489 | 0.0130 < 0.010 | 2.12 1.36 Avg: 1.74 |
| RV184- 11HA | Saskatchewan Resion 14 2011 | | Admiral | Z Seed | 0.369 (0.41-0) | » 85.85 | 7 | 0.132 0.134 | 0.116 0.112 | <0.010 <0.010 | 0.258 0.256 Avg: 0.257 |
| RV185- | Saskatcheway, Region 14, 2011 | TRTIQ | Admiral | Seed | 0.366 (0.410) | 85.31 | 7 | 0.528 0.411 | 0.123 0.102 | 0.0185 0.0142 | 0.669 0.527 Avg: 0.598 |
| | Saskatcheway, Region 14, 2011 | | | 7 | | | | Cont | inued oi | n next po | ige |

Table 6.3.2.10-7 (cont'd): Total BYI 02960 Residue Data from Legume Vegetables (Except Soybean); (Crop Subgroups 6C) after Two Foliar Applications of BYI 02960 SL

| | | (F | Subgroups | 0 0) | | · | · F · · · · | | | | 0 |
|-----------------------------------|---|-----------|--------------|-----------|-------------------------------------|----------------|-------------------|--------------------------------|------------------------------------|--------------------------------------|--|
| Trial Identification ^a | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | Total Rate Lb a.s./A(Ng a.s./ha) | % Dry Matter a | Sampling Interval | BYI 02960 Residue (mg/kg) | DFA Residue (mg a.s. equiv./kg) | DFEAGRESIQUE | Total B. 102960 (m. 2.s. equiyak |
| Peas, dr | ied | | | | • | | , Ø | ~~ | , \O' | | |
| RV186- 11DA | , WA, Region 11, 2011 | TRTP2 | | Ö | \$368 \$0.4135 | 90.34 | 7 2 | | 3.15 | | 2.32 2.73 2.73 2.53 4.53 d 3.41 Avg: 3.97 e |
| | | | | | | Ø1.09 | 21 21 | 1.20 ©1.17 | | <0.010 <0.010 | 4.90 5.71 Avg: 5.31 3.56 3.55 Avg: 3.56 |
| | | | | | | 92.45 | 35 | 1.05 0.982 1.21 0.949 | 3.40 2.92 2.66 2.45 | <0.010 <0.010 <0.010 <0.010 | 4.46 3.91 Avg: 4.19 3.88 3.41 Avg: 3.64 |
| | | | | | | | | Cont | inued o | n next po | Ige |

Table 6.3.2.10-7 (cont'd): Total BYI 02960 Residue Data from Legume Vegetables (Except Soybean); (Crop Subgroups 6C) after Two Foliar Applications of BYI 02960 SL

| | | (I | Subgroups | 0 0) | | · | · F · · · · | | | | 0 |
|-----------------------------------|---|-----------|--------------|-----------|-------------------------------------|----------------|-------------------|--|------------------------------------|--|--|
| Trial Identification ^a | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | Total Rate Lb a.s./A(kg a.s./ha) | % Dry Matter a | Sampling Interval | BYI 02960 Residue (mg/kg) | DFA Residue (mg a.s. equiv./kg) | | Total B. 102960 Residue (n.g. a.s. equivakg) |
| Peas, dr | ied | | | | | | \Q' | ~~ | ,\ ⁰ ' | | Q" |
| RV187- 11DA | OR, Region 11, 2010 | TRTP2 | | Ö | \$370 \$0.4145 | | 1 (| | 0.25% | 0.0255 0.0293 0.0295 0.0295 0.0463 | 0.791 0.784 vg: 0.787 1.08 1.28 Avg: 1.18 |
| | | | | | | 88.06 | 21 21 | 0.978 0.894 0.894 1.04 0.934 | | 0.0392 0.0443 0.0608 0.0551 | 1.32 1.40 Avg: 1.36 1.63 1.48 Avg: 1.56 |
| | | | | | | 87.36 | 35 | 1.15 0.928 0.985 0.818 | 0.494 0.412 0.475 0.444 | 0.0510 0.0445 0.551 0.434 | 1.70 1.38 Avg: 1.54 1.52 1.31 Avg: 1.41 |
| | | | | | | | | Cont | inued o | n next po | |

Table 6.3.2.10-7 (cont'd): Total BYI 02960 Residue Data from Legume Vegetables (Except Soybean); (Crop Subgroups 6C) after Two Foliar Applications of BYI 02960 SL

| | | (Clop | Subgroups | oc) and | 1 1 WO 1 | onai Aj | ppiicati | 10113 01 1 | J11 02) | 00 BL | 0 |
|------------------------|---|-----------|--------------|-----------|------------------------------------|---|-----------------------------------|---------------------------|------------------------------------|-----------------------------------|--|
| Trial Identification " | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | Total Rate Lb a.s.Ackg a.s./ha) | % Dry Matter a | Sampling Interval g(days) here | BYI 02960 Residue (mg/kg) | DFA Residue (mg a.s. equiv./kg) | DFEARRSjdue (Ang. 1.8) (Ang. 1.8) | Total B. 102960 Residue (M. 2. equix kg) |
| Peas, dr | ied | | | Q0" | | ~ | 01 | Q, | \O' | | |
| RV188- 11DA | Saskatchewan, Region 14, 2011 | TRTP2 | Meadow | Seed O | \$366 \$0.410 \$ | \$2.36 \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ | | (0.683 (0.617) | 0.118 | ×0.016 <0. <u>0</u> 10 | 0.811 0.743 Awg: 0.777 |
| RV188- 11DA | Saskatchewan, Region 14, 2011 | TRTP2 | Meadow (| Seed * | 0.366 (0.440) | | | 0.202 | 0.0740 0.0548 | <0.090 <0.010 >0.010 | 0.287 0.305 Avg: 0.296 |
| RV188- 11DA | Saskatchewan, Region 14, 2011 | TRTPŽ | Meadow | | 0.366 (0.410) | 86(78 | | 0.349 0.409 | 0.101 ©144 | <0.010 <0.010 | 0.460 0.563 Avg: 0.512 |
| RV188- 11DA | Saskatch Wan, Region 14, | TRTP2 | Meadow | | | 89 .45 | 21 / 3 / 3 | 0.367 Ø.390 | 0.109 0.117 | <0.010 <0.010 | 0.486 0.517 Avg: 0.502 |
| RV188- 11DA | Saskatchewan Region 14 2011 | JRTP2 | Meastow 5 | Seed | 0.366 (0.410) | 289.41 | | 0.265 0.257 | 0.0640 0.0681 | <0.010 <0.010 | 0.339 0.335 Avg: 0.337 |
| RV188- 11DA | Saskarchewan, Region 14, 2011 | TRTP | Mendow | Seed S | 0.366 (0.410) | 87.88 | 33 | 0.208 0.180 | 0.0604 0.0522 | <0.010 <0.010 | 0.278 0.242 Avg: 0.260 |
| | Saskatchewan, Region 14, 2011 Saskatchewan, Region 14, 2011 | | | | | | | Cont | inued o | n next po | !ge |

Table 6.3.2.10-7 (cont'd): Total BYI 02960 Residue Data from Legume Vegetables (Except Soybean); (Crop Subgroups 6C) after Two Foliar Applications of BYI 02960 SL

| | | (I | Subgroups |) | | · · · | Τ | | | | 0 |
|------------------------|---|-----------|---------------------|-----------|-------------------------------------|---------------------------------|-----------------------------|--------------------------------|------------------------------------|--|---|
| Trial Identification " | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | Total Rate Lb a.s./ACkg a.s./ha) | % Dry Matter ^a ©> | Sampling Interval (days) | BYI 02960 PESIGUE (mg/kg) PA | DFA Residue (mg a.s. equiv./kg) | DFEACHESIQUE & Cangaran Cangar | Total B. 192960 Residue (m. 23.8. equiy kg) |
| Peas, dr | ied | | | Q) | . • | | ~ W | Q. | , /O, | | |
| RV189- 11DA | Saskatchewan, Region 14, 2011 | TRTP2 | Meadow | &eed | \$366 \$0.410 \$\infty\$ | \$ 9.74 \$ | | \$\int_0.841 \$\int_0.917\$ | 9.174* 0.181 0.18 | ×0.018 0.0101 | 1.03 1.1,1 2 vg: 1.07 |
| RV189- 11DA | Saskatchewan, Region 14, 2011 | TRTP2 | Meadow & | Seed * | 0.366 (0.410) | 75.1% | | 0.570 | 0.248 | <0.090 <0010 ******************************** | 0.828 0.879 Avg: 0.854 |
| RV189- 11DA | Saskatchewan, Region 14, 2011 | TRTADŽ | Meadow 5 | Seed | 0.366 | 86Q7 | | 0.712 9662 | 0.300 ©2331 | <0.010 <0.010 | 1.02 1.00 Avg: 1.01 |
| RV189- 11DA | Saskatchewan, Region 14, | TRTP2 | Meadow | Seed | 0366 (9.410) | & 7.86 | 21 / J | 0.746 ©0.843 | 0.341 0.414 | <0.010 <0.010 | 1.10 1.27 Avg: 1.18 |
| RV189- 11DA | Saskatchewan, Region 14 2011 | TRTP2 | Meatow 5 | ` ,*\ | 0.366 ((0.4.10) | 287.170 | | 0.704 0.763 | 0.330 0.363 | <0.010 <0.010 | 1.04 1.14 Avg: 1.09 |
| RV189- 11DA | Saskatcheway, Region 14, 2011 | ŤRTP | Mendow | | 0.366 (0.410) | 87.69 | 33 | 0.807 0.812 | 0.457 0.441 | 0.0116 0.0105 | 1.28 1.26 Avg: 1.27 |
| Beans, d | ried 🔊 | 4 | | | | | | | | | |
| RV190- 11HA | OH, Region 3, | FRTB2 | Vista | Seed | 0.366 (0.411) | 81.70 | 7 | <0.010 <0.010 | | <0.010 <0.010 | 0.070 0.070 Avg: 0.070 |
| RV 191- | Region 5, 2011 | TRTP | Pink Eye Purplehull | Seed | 0.365 (0.409) | 84.04 | 6 | 0.0297 0.0426 | <0.050 <0.050 | 0.402 0.474 | 0.482 0.567 f Avg: 0.524 g |

Table 6.3.2.10-7 (cont'd): Total BYI 02960 Residue Data from Legume Vegetables (Except Soybean); (Crop Subgroups 6C) after Two Foliar Applications of BYI 02960 SL

| | | ` . | buogroups | | | | • | | | | 0 |
|-----------------------------------|---|-----------|-------------------|-----------|-------------------------------------|--------------------------------|-------------------|----------------------------|------------------------------------|------------------------|---|
| Trial Identification ^a | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | Tokan Rate Lb a.s./A(kg a.s./ha) | % Dry Matter ^a & | Sampling Interval | BYI 02960 PResidue (mg/kg) | DFA Residue (mg a.s. equiv./kg) | DFEARRSjdue | Total Bon 12960 Residue (mga.s. equiyekg) |
| Beans, d | ried | | | | 1 | | | ~~ <u>~</u> | ~_ | <u> </u> | Q [°] |
| RV192- 11HA | , MN, Region 5, 2011 | TRTB2 | Great northern | Seed | \$370 \$0.415 \$\int \text{2} | \$1.33 Q | 4 | 0,0193 0.0194 | <i>J</i> , | 0.0124 0.0103 | 0.0817 0.0797 Avg: 0.0807 |
| RV193- 11HA | Region 7A, 2011 | TRTB2 | Redbond | Seed * | 0.368 (0.41) | 86.48) | 7 2 | 0.0638 0.0733 | <0.050 <0.050 \(\sqrt{0}\) | 0.0194 0.0190 >> | 0.126 0.146 Avg: 0.136 |
| RV195- 11HA | , ID, Region 11, 2011 | TRTADŽ | Othello & | 0 0 | 0.369 (0.414) | 87\$8 | | 0.0117 | <0.050 \$0.050 | 0.0116 0.0135 | 0.0733 0.0736 Avg: 0.0734 |
| RV196- 11DA | | TRTB2 | Brick Tursle | . " | W 1 - 1 | & 4.16 | | 0.0784 Ø.0537 | <0.050 <0.050 | <0.010 <0.010 | 0.138 0.114 Avg: 0.126 |
| Į. | | | | | | 782.22° | ₹ 7 | 0.0685 0.0593 | <0.050 <0.050 | <0.010 <0.010 | 0.129 0.119 Avg: 0.124 |
| r. | | | | | | 82.26 | 14 | 0.0919 0.0853 | <0.050 <0.050 | <0.010 <0.010 | 0.152 0.145 Avg: 0.149 |
| 4 | | | | | | 84.02 | 21 | 0.190 0.206 | <0.050 <0.050 | <0.010 <0.010 | 0.250 0.266 Avg: 0.258 |
| | | | | | | 88.62 | 28 | 0.249 0.238 | <0.050 <0.050 | <0.010 <0.010 | 0.309 0.298 Avg: 0.304 |
| | | | | | | 88.65 | 35 | 0.213 0.262 | <0.050 <0.050 | <0.010 <0.010 | 0.273 0.322 Avg: 0.298 |

Table 6.3.2.10-7 (cont'd): Total BYI 02960 Residue Data from Legume Vegetables (Except Soybean); (Crop Subgroups 6C) after Two Foliar Applications of BYI 02960 SL

| | | (Clop | Subgroups | 00) 4110 | 11,1101 | 01141 1 1 | opv | | , , , , , , , , , , , , , , , , , , , | 00 52 | 0 |
|-----------------------------------|---|-----------|--------------|-----------|--|------------------------------------|-------------------|----------------------------|---|-----------------------------------|--|
| Trial Identification ^a | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | Total Rate Lb a.s./Ackg a.s./ha) | % Dry Matter a | Sampling Interval | BYI 02960 PResidue (mg/kg) | DFA Residue (mg a.s. equiv./kg) | DFEÆRRSJUNE & ODE ALS. EQUIV./kg) | Total B. 102960 Regidue (m. 2 equiy. kg) |
| Beans, d | ried | | | | | | ~ Ø | ~~ | ~/ _O , | | & " |
| RV197- 11DA | , ND, Region 7, 2011 | TRTB2 | Navigator | Seed O | 0,374 0.419 0.374 (0.419) | 78.80 | 7 Ž | Ő | <0.050 | | 0.187 0.262 4wg: 0.225 |
| | | | | | (0.449) | | | | <0.050 <0.050 \$\frac{1}{2}\$\$\$<0.050 \$\frac{1}{2}\$\$\$0.050 | y | 0.167 Avg: 0.165 |
| | G. | | | | 0.374 (0.419) (0.374 (0.419) (0.374 (0.419) | &6.48 | | ," | * | 0.0516 | 0.0967 Avg: 0.102 |
| | | | | | (9.419) 9.374 | 86.48 2 2 2 2 88.11 | Ø 27 | 0.0284 9.0311 0.0171 | < 0.050 | 0.0622 | 0.143 Avg: 0.137 |
| | | | | | (0.419) | 78.40 | 33 | 0.0365 | <0.050 | 0.0416 | 0.128 Avg: 0.125 |
| | | | | | (0.419) | | | | | 0.0526 | 0.129 Avg: 0.129 |
| | | | | | | | | Cont | inued oi | n next po | ıge |



Table 6.3.2.10-7 (cont'd): Total BYI 02960 Residue Data from Legume Vegetables (Except Soybean); (Crop Subgroups 6C) after Two Foliar Applications of BYI 02960 SL

| | | (F | Subgroups | 0 0) | | <u>-</u> | - F | | | | 0 |
|-----------------------------------|---|-----------|--------------|-----------|-------------------------------------|----------------|-------------------|----------------------------|--------------------------------------|--|--|
| Trial Identification ^a | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | Total Rate Lb a.s./A(kg a.s./ha) | % Dry Matter a | Sampling Interval | BYI 02960 Residue (mg/kg) | DFA Residue (mg a.s. equiv./kg) | DFEARRSjdue & Grigs Rg) Og g | Total BO 12960 Residue (Mg a.s. equity/kg) |
| Beans, d | lried | | | Q) (O) | • | | , Ø | | , \0' | | |
| RV198- 11DA | | | | | | 83.06 83.06 | 140 21 | | <0.050 <0.050 <0.050 0.050 | 0.0322 0.0482 0.0549 0.0435 0.0746 0.0463 0.0474 | 0.155 0.171 Avg: 0.163 0.196 0.242 Avg: 0.219 0.215 0.198 Avg: 0.206 0.144 0.214 Avg: 0.179 |
| | | | | | | 69.57 | 35 | 0.0184 0.0184 0.0380 | <0.050 <0.050 <0.050 <0.050 | 0.0123 0.0187 0.0560 0.0464 | 0.0807 0.0871 Avg: 0.0839 |
| | | | | | 1 | ı | | Cont | inued oi | n next po | лgе |

Table 6.3.2.10-7 (cont'd): Total BYI 02960 Residue Data from Legume Vegetables (Except Soybean); (Crop Subgroups 6C) after Two Foliar Applications of BYI 02960 SL

| | | ` - | - 1 | <u> </u> | | Ondi 7 ij | | | | | 0 |
|-----------------------------------|---|-----------|--------------|-----------|--------------------------------------|---------------------------|------------------------------|---|------------------------------------|---|---|
| Trial Identification ^a | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | Totál Rate Lb a.s./A(Jkg a.s./ha) | % Dry Matter ^a | Sampling Interval ((days) | BYI 02960 Residue (mg/kg) R | DFA Residue (mg a.s. equiv./kg) | DFEACHESIQUE & CONS. (Ang. a.s. equis. (kg) | Total BON 12960 Residue (MEA.S. equingle) |
| Beans, d | lried | | | Q0" | V | ~ | ~_ @` | Q. | \O' | | Ŵ |
| RV199- 11DA | , ID, Region 11, 2011 | TRTB2 | Bill Z | Con | © 361 V0.405 V | \$9.16 Q | 7.8 | 0.0960 0.09545 40.029© | W , | 0.0465 0.0502 | 0.413 Avg: 0.399 |
| | | | | | | | Õ | 0.029 0.029 0.039 0.0485 0.0485 | 0.266 | 0.0596 0.0492 0.0409 | 0.328 |
| | | | | | | 9 0.08 | | 0.0287 0.0287 Ø.0249 | V | 0.0423 0.0453 0.0380 | 0.278 Avg: 0.278 0.330 0.347 |
| | | | | | | 80.08 | an. | 0.0202 | 0.244 | 0.0414 | Avg: 0.339 |
| | | | | | | | | 0.0332 | 0.290 | 0.0451 | 0.368 Avg: 0.337 |
| | | 80 4 | | | | 90.96 | 35 | 0.0367 0.0356 | 0.337 0.319 | 0.0536 0.0516 | 0.427 0.407 Avg: 0.417 |

- a Where a single value appears % dry matter was determined from one of the duplicate samples. Where two values appear, % dry matter was determined for each duplicate sample.
- b Sampling interval is the interval between last application and sample cut date.
- c Total BYI 02960 residue is the sam of BYI 02960 DFA, and DFEAF residue in parent equivalents. Residue measurements below the analyte LOQ were sammed into the total BYI 02960 residue value as the analyte LOQ value. These totals represent the upper limit of what the residue levels might be.
- d Maximum residue found in pea Seds at the target PHI of 7 days.
- e HATY reside found papea scods at the target PHI of 7 days.
- f Maximum residue found in Dean seeds at the target PHI of 7 days.
- g MAFT residue found in bean seeds at the target PHI of 7 days.



Conclusion

Twenty field trials were conducted to measure the magnitude of total BYI 02960 residue in/on dried, shelled pea and bean (except Soybean); (CG 6C) following two foliar spray applications of BYI 02960 200 SL. The total BYI 02960 residue data are summarized in Table 6.3.2.10-8.

Summary of Residue Data for Total BYI 02960 from Dried, Shelled Pea and Table 6.3.2.10-8: (except Soybean)

| Ommodity | lot Name ¹ | Total Application Rate lb a.s/A (kg a.s./ha) | PHI (days) | fin ac | | | lean 3 22 |
|-----------|-----------------------|---|------------|-----------|----------------|-------------|-------------|
| Pea Seed | TRTP2 | 0.365 to 0.370 (0.409 to 0.414) | | 1 1‰ ((| | 3.07 0.785 | 1.06 1.13 |
| Bean Seed | TRTB2 | 0.361 to 0.374 (0.405 to 0.419) | 6-7 | 10 0.0700 | 0567 (35)(5)(0 | 0.524 0.138 | 0.100 0.147 |

- 1 TRTP2 = treated pea plot receiving two form spray application; TRTB2 = treated bean plot receiving two foliar spray application

1 TRTP2 = treated pea plot receiving two foliar spray application;
TRTB2 = treated bean plot receiving two foliar spray application
2 HAFT = Highest Average Field Trial
3 calculated on the basis of residue adues at the PHI
4 Sampling day showing highest residue.

Total BYI 02960 residues were considerably higher in dried peas compared to dried beans when treated according to the intended are notices. The total societies for the intended are notices. treated according to the intended one pattern. The total residue levels of BYI 02960 did not always peak at the intended PHI of 7 days. For dried peas maximum residues were detected 12 to 21 days; only one trial showed the residue maximum at the last sampling event. However, this residue level was far below the peak level in peas.

The residue behaviour in dried beans was less distinct: two trials showed the maximum residue at the PHI and two at the end of the sampling period. The overall highest residue in beans (0.43 mg/kg) was detected at the last sampling interval (35 days after the last application). However this value was by a The residue data provided for regume vegetables are suitable for regulatory purposes. factor of approx. 10 lower than the highest Pesidue in peas.



IIA 6.3.2.11 Oilseeds – peanuts

Residue data from NORTH AMERICA

BYI 02960 is to be registered in USA and Canada for use as a foliar treatment on peanuts. The ase pattern in North America is summarized in Table 6.3.2.11-1.

A total of twelve trials were conducted in peanuts. The studies are described below.

Table 6.3.2.11-1: Target Use Patterns for the Application of BYI 0260 on Peanut in North Apprica

| | | | Targe | t Rate/Application | | | | Q 0 | Spray | olumbe |
|---------------------|----------------|------|-------------------|--------------------|------------------------------|----------------------|-------------|---------------|---------|--------|
| | | _ | ulated ct (FP) | Active Substar | Target Tax | | Adjuvant | | C.D. | |
| Test Substance | No. of Apps | mL/A | fl oz/A | Name of a.s. a.s. | kg [©] A a.s./ha | Interval (Days)_2 | D HI | /Additive | a \\ | LPMA |
| BYI 02960 200 SL | 2 | 415 | 14.0 | BYL 92960 0.18 | 3 0.20 5 | 1,00 | | 5 7.25 | ¥10-50¢ | 93-467 |

¹ Dyne-Amic or any non-ionic surfactant

| Report: | KIIA 6,3.2.11/01; and A. M. 2012 |
|-------------|---|
| Title: | BYI 02960 200 SL - Magnitude of the Residue in Peanut |
| Report No & | RARVY019, dated January 30, 2002. |
| Document No | ₩ ² 424313-01-20 |
| Guidelines: | US: EAA Resigne Chemistry Test Gindeline OPPT\$ 860,1500, Crop Field Trials |
| (~n | Canada: PMRA DACO 7.4 x, Supervised Residue Frial Study PMRA DACO 7.4.2, Residue Decline |
| | PMRA DACO (4.2, Residue Decline |
| , Q | GECD: Guidenes for the Lessing of Themicals, 50%—Crop Field Trial, |
| | Adopted Sept. 7, 2009. |
| GLP | |

Twelve field trials were conducted to measure the magnitude of BYI 02960 residues in/on peanut nutmeat and peanut hay following two broadcast tonar spray applications of BYI 02960 200 SL. The number and location of field trials conform to the guidance given by the EPA (Table 6.3.2.11-2). Since pearut hay (as feed item) is not imported into Europe, this dossier will focus on peanut nutmeat, only. Complete information on the study, including the data on peanut hay, was submitted in the Global Joint Review Submission (if October 2012).



Table 6.3.2.11-1: Trial Numbers and Geographical Locations for BYI 02960 on Peanuts

| NAFTA Growing Region | Submitted ^a | Requested @ |
|--|------------------------|-------------|
| 1 | | Requested |
| 1A | | |
| 2 | 8 | 8 2 |
| 3 | 1 | |
| 4 | 1 | |
| 5 | 7 0 0 | N Q S |
| 5A | | |
| 5B | | |
| 5B 6 7 | | @ ~ ? \ |
| 7 | | |
| 7A Q 47 20 | | |
| 7 7A 0 4 4 9 8 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 9 | | |
| 100 | | |
| 100 7 | | Ö* |
| 11 | | |
| | 9 4 5 T | \$ \$7 |
| | | |
| | | |
| Total O | 12 | 12 |

a Four of the twelve trials were decline trials (two in Region 2, and one in Region 8). The additional decline trials were performed to preet EU requirements.

Material and Methods

Individual application rates ranged from 0.176 to 0.188 lb BYI 02960/A/application (0.198 to 0.211 kg BYI 02960/ha/application). Seasonal application of the ranged from 0.354 to 0.376 lb BYI 02960/A (0.327 to 0.421 kg BYI 02960/ha/ All applications were made at growth stages ranging from BBCH 79 to 89 (BBCH 79: pearluts have attained final size and fill the cavity of pods; BBCH 89: fully ripe). The interval between the applications was 7 to 11 days.

All applications were made using ground-based equipment. All applications included a non-ionic surfactor (NJS) adjugant at $\sqrt{100}$ rate of 0.25% (v/v).

Trial Site conditions, including soil characteristics are summarized in Table 6.3.2.11-3. Study use patterns are summarized in Table 6.3.2.11-4.

Table 6.3.2.11-3: Trial Site Conditions for BYI 02960 on Peanuts

| | | Soil (| Charact | eristics | a | Meteorolo | ogical Datab |
|--|--|--|---------------------|----------------|----------------------------------|---------------------------------|--------------|
| Trial Identification | Trial Location (City, Country/State, Year) | Туре | OM (%) | pН | CEC (meq/100g soil) | Total Rainfall (in) | Temp Range |
| RV120-10HA | SC, 2010 | Sand | 0.5 | 6.1 | 2.4 | 3.68 | 5088 Q |
| RV121-10HA | GA, 2010 | Sandy Loam | 0.8 | ි 6.6 | \$\hat{\partial}{\partial}\$ | 8.80 ° | 9 49-9 V |
| RV122-10HA | , VA, 2010 | Sandy Loam | \$\text{1.5} | 5.7 | | 8.96 | Ø6-75, Ø |
| RV123-10HA | AL, 2010 | Sandy Loam | N≱, [€] | | ŽŇA ° "O | ©.23 × | 560-82 |
| RV124-10HA | NC, 2010 | Sandyloam | 0.9 | | 6.8 | 1.26 | 50-76 |
| RV125-10HA | , GA, 2010 | Joanny, Sand | \$\frac{1}{2}\ldots | 7.2 | 5.5 | \$\frac{1}{2}.32\$\frac{1}{2}\$ | \$3-94 |
| RV126-10HA | FL, 4 | Sand | jòz | | ⁰ 4.1 ⁰ | 9.65 × | ♥ 67-90 |
| RV127-10HA | , OK, 2010 | Sandy Eoam | 0.9 | 6.6 | | 5.46 | 49-86 |
| RV128-10DA | NO, 2010 | Loamy Sand | ©0.7 × | 6.4 § | 6.5 | \$ 2.04 | 38-76 |
| RV129-10DA | , Gh, 2010 ⁰ | Sandy Loam | | | 7.1 | 4.08 | 54-89 |
| RV130-10D | , OK 2010 | One Sasay Loan | 0.80 | 5.6 | 8 .1 | 5.03 | 53-86 |
| RV131 JODA | To, 2010 | ~ ~. \ () | \$0.5 \times | \$7.9 \$7.9 | 6.6 | 4.03 | 51-90 |
| Abbreviations us Data is for the in obtained from no NA = Not Agaila | sed OM fercento was val of the month of the month of the month of the month we all the control of the month of the control of the month of the control of th | rganic matter; CDC = first application thro ther station | e cation bugh the | exchang | e capacity . f last sampling. | Meteorologica | l data were |



Study Use Pattern for BYI 02960 200 SL on Peanuts Table 6.3.2.11-4:

| | < | ou) | | | A | pplicat | ion | | | an ° | <u>~</u> |
|----------------------|---|-------------------------------|-----------|---------------------|----------------------------|--|---------------------------------------|-----------------------------------|---------------------|--|----------|
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Method | Timing Exowth Stage (BBCH) | Spray Volume GPA (L/ha) | Rate lb & A (kg a.i./ha) | Retreatment Interval | Kafe lb a.s. s./ha) | Tank Klix Adjukants | Ş |
| RV120-10HA | SC Region 2 2010 | BYI 02960 200 SL | | | | 15 (140) | ©183 (0.205) (0.184) (0.206) | | 9366 (0.4 kl) | Done-Amic, 0.25% v/v | |
| RV121-10HA | GA Region 2 2010 | BYI@2960 290 SL | | | | 29 (270) (270) (270) 90 (280) | | NAG Q Z Z Z Z Z | 0.365 (0.310) | Dyne-Amic, 0.25% v/v Dyne-Amic, 0.25% v/v | |
| RV122-10HA | Region 2 2010 | BY 1 029 60 200 SL | TRADO | | 8 7 | (A) 20) * | 0.188 | NA ^a | 0.376 (0.421) | Dyne-Amic, 0.25% v/v Dyne-Amic, 0.25% v/v | |
| RV123-10HA | | BVI 900 | TOTO I | Proadcast Foliar | 89 | 25 (230) 20 (190) | 0.182 (0.204) 0.184 (0.206) | NA ^a | 0.366 (0.410) | Dyne-Amic, 0.25% v/v Dyne-Amic, 0.25% v/v | |
| | | 7 | | | | | , | Contii | nued on r | next page | |



Table 6.3.2.11-4 (cont'd): Study Use Pattern for BYI 02960 200 SL on Peanuts

| 1 4010 0.3.2.11 | r (cont a). | | | 101 111 02 | | | On i cand | | | 1 |
|----------------------|---|-------------------------------|----------------|-----------------------|---|----------------------------|---|----------------------|--------------------------------------|--|
| | $\mathbf{T}\mathbf{A}$ | tion | Application | | | | | | | |
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Method |) L | Spray Volume GPA (L/ha) | Rate Ib & K.A. (kg a.i./ha) | Retreatment Interval | Lotal Rafe, ib a.s./A (kgdys./ha) | Tank Olix Adjuvants |
| RV124-10HA | , NC Region 2 2010 | BYI 02960 200 SL | TRTD | | 85 | 21 C (200) | 0.183 (0.295) | | 0.406 | Doie-Amic, 0.25% v/v |
| RV125-10HA | GA Region 2 2010 | BY1@2960 .290 SL | | | 880 \$\frac{1}{2} \tag{5} \tag | 23 (230) (200) | \$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | NAGO CATO | 0.365 (0.309) | Dyne-Amic, 0.25% v/v Dyne-Amic, 0.25% v/v |
| RV126-10HA | FE Region 3 2010 | BYI 02960 200 SL | | Brodcast Foliar | ASS CL | (190) | 0.183 (0.205) | NA ^a | 0.369 (0.413) | Dyne-Amic, 0.25% v/v Dyne-Amic, 0.25% v/v |
| RV127-10H4 | OK, S Region 6 2610 | BYI 02960 200 SL | ARTD Q Q | Paroadcast Fortiar | 84 | 19 (180) 21 (200) | 0.176 (0.198) 0.177 (0.199) | NA ^a | 0.354 (0.397) | Dyne-Amic, 0.25% v/v Dyne-Amic, 0.25% v/v |
| | | J Y | | | | | | Contii | nued on r | next page |

Table 6.3.2.11-4 (cont'd): Study Use Pattern for BYI 02960 200 SL on Peanuts

| | Ą. | ion) | Application | | | | | | | | |
|----------------------|---|-------------------------------|--|---------------------|--|----------------------------|--------------------------------------|----------------------|-------------------------------------|--|---|
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Method | Timing (sowth Stage (BBCH) | Spray Volume GPA (L/ha) | Rate Ib & (kg a.i./ha) | Retreatment Interval | Kotal Raje ib a.s./A (kgdys./ha) | Tank Olix Adjuvants | 5 |
| RV128-10DA | , NC Region 2 2010 | BYI 02960 200 SL | | | 88 | (200) | 0.183 (0.208) 0.183 (0.265) | 105 | | Dyne Amic, 0.25% v/v Done-Amic, 0.25% v/v | |
| RV129-10DA | GA Region 2 2010 | BY102960 200 SL | ACRITO SOLUTION OF | | 880 0 5 5 88 | Ø230) | (0.205) | NAO Ç10 | 0.867 (0.311) | Dyne-Amic, 0.25% v/v Dyne-Amic, 0.25% v/v | |
| RV130-10DA | | BYI 02960 200 SL | TRAD | Broadcast Foliar | ************************************** | | 0.183 (0.205) 0.184 (0.206) | NA ^a | 0.367 (0.412) | Dyne-Amic, 0.25% v/v Dyne-Amic, 0.25% v/v | |
| RV131-10D | TX, Region 8 2010 | BYI 02960 200 SL | ARTD. | Broadcast Fohar | 85 89 | 20 (180) 20 (180) | 0.184 (0.207) 0.185 (0.208) | NA ^a | 0.370 (0.414) | Dyne-Amic, 0.25% v/v Dyne-Amic, 0.25% v/v | |

From the harvest trials, duplicate composite samples of peanuts were collected at the envisaged preharvest interval (PHI) of 7 days. In four decline trials, duplicate composite peanut samples were collected from the treated plots at 0, 3, 7 to 8, 14, and 21 days after the last application. Single



composite samples of peanuts were collected from the control plots on the same day the target 7-day samples were collected from the treated plots. The peanuts were allowed to dry in the field or under covered storage for 4 to 17 days prior to collecting the samples according to regional agricultural practices. The peanuts were shelled to produce the commodity of peanut nutmeat.

The residue(s) of BYI 02960, DFA, and DFEAF were quantitated by HPLC-MS/MS using stable isotopically labelled internal standards. The individual analyte residues were summed to give a stal BYI 02960 residue. Residue measurements below the analyte LOQ were summed into the total BYI 02960 residue value as the analyte LOQ value.

Findings

Concurrent recoveries of BYI 02960, DFA, and DEFAF were measured with each set of samples to verify method performance. All recoveries were corrected for any interferences in corresponding controls. The overall mean of the recoveries for each matrix was within the acceptable range of to 110%, and the standard deviation values were below 20% (Table 6.3.2.16-5).

Table 6.3.2.11-5: Summary of Recoveries of BYI 0.2960 from Peanuts

| Crop Matrix | Analyte | Spike Level | Sample Size (n) | Recoveries (%) | ○ Mean Recovery (%) a | Std Dev (%) |
|----------------|------------------|-----------------------|-----------------------|--|-----------------------------|-------------------|
| | Ž, | \$\frac{1}{2}0.01@ | a, S | Ø2, 840100, 04, 97, 66, 117, 99, | 91 | 14 |
| | BX 02960 | .0 .0 50 ,2 | 3 | ©96, 97, 94 © | 96 | 2 |
| | | 0.16 | | 9 6 81,87 | 88 | 8 |
| Peanut | DFA [©] | © 050 <u>1</u> | | 96, 98, 90, 92, 98, 92, 100, 81, Ø97, 85088, 83 | 92 | 7 |
| Nutmeat | DFA ^S | 0.10 | \$\sqrt{3} \times\$ | \$\int_{\infty}\$\tag{9},70,81 | 73 | 7 |
| | 3',4 | ® .010 % | | 89, 81, 82, 89, 83, 90, 84, 84, 80 | 85 | 4 |
| | DFEAT | 0.056 | © 3 , © | 97, 84, 89 | 90 | 7 |
| , *** | | 3 9.10 | | 88, 80, 117 | 95 | 19 |

a Mean Recovery = mathematical average of all recoveries

The freezer storage stability study indicates that BYI 02960 residues were stable in coffee beans and soybean seeds, as representative commodities with a high oil content - during frozen storage for at least 18 mooths (558 days prior to analysis. The maximum storage period of frozen peanut samples in this study for FYI 02960 was 217 days. A summary of the storage conditions are shown in Table 6 3 2 14 6

Table 6.3.2.11-6: Summary of Storage Conditions for Peanut Nutmeat

| Residue Component(s) | Matrix (RAC) | Maximum Average Storage Temperature (°C) ^a | Actual Storage Duration months (days) b | Interval of o Demonstrated Storage Stability months days) c |
|-------------------------|-----------------|---|---|--|
| BYI 02960 | Peanut Nutmeat | <-17 | 7 (21 4) | (55 %) |
| DFEAF | Peanut Nutmeat | < -17 | (217) | (558) (558) |
| DFA | Peanut Nutmeat | 4 7 | 7 Q (317) | Q 185 % (558) X |

a The maximum average storage temperature is from the time of sample receipt at BRP until sample extraction and is the maximum of all average freezer temperatures at BRP and Pyyant. White preparing for sample analysis, the samples were maintained in a laboratory freezer.

The total BYI 02960 residue data for peanut not meat following folior applications of BYI 02960 200 SL are shown in Table 63.2.11-7.

Table 6.3.2.11-7: Total BYI 02960 Residue Data from Peanuts (Nutmeat) after I wo Foliar Applications of BYI 02960 SI

| Trial Identification | Location (City, State, Region, and Year) | Pot Name | CropNariety S L | Commedity (2) | Total Rate Ebas./A (Raa.s./ha) 🔧 | Z Dry Mather a Line | | BYI 02960 Residue (mg/kg) | DFA Residue (mg a.s. equiv./kg) | DFEAFResidue (mg a.s. equiv./kg) | Total BYI 02960 Residue (mg a.s. equiv./kg) ^b |
|----------------------|--|----------|-----------------|----------------|-------------------------------------|---------------------|---|------------------------------|------------------------------------|-------------------------------------|---|
| RV120- | , SC, & | TRTD | | Peanut | %0,366 _% | ŇA | 6 | 0.034 | < 0.050 | < 0.010 | 0.094 ^d |
| 10HA | Region 2, | | | Nutmeat | 0.411 |)r | | 0.020 | < 0.050 | < 0.010 | 0.080 |
| | * 2010 | | | Peanut Nutmoat | | | | | | | Avg: 0.087 ^e |
| RVAŽÝ- | GA," | TRAD | Georgia- | Peanut (| 0.366 | NA | 7 | 0.018 | < 0.050 | < 0.010 | 0.078 |
| 10HA F | | 10 | O6G | Nutmeat | (0.411) | | | < 0.010 | < 0.050 | < 0.010 | < 0.070 |
| | 20 ° 0 | | , | W . | | | | | | | Avg: 0.074 |
| RV122- | , | TR TD | Çhamps | Peanut | 0.376 | NA | 7 | < 0.010 | < 0.050 | < 0.010 | < 0.070 |
| 10HA | A, Region | \ ~C | 0> | Nutmeat | (0.421) | | | < 0.010 | < 0.050 | < 0.010 | < 0.070 |
| | 2010 T | | ? | | | | | | | | Avg: <0.070 |
| RV123- | | TRTD | Georgia | Peanut | 0.366 | NA | 7 | < 0.010 | < 0.050 | < 0.010 | < 0.070 |
| 10HA | AL, | | Greener | Nutmeat | (0.410) | | | < 0.010 | < 0.050 | < 0.010 | < 0.070 |
| F | Region 2, | | | | | | | | | | Avg: <0.070 |
| | 2010 | | | | | | | | | | \0.070 |

b The storage duration is the time from field sampling through the last sample extraction.

and A. an

Table 6.3.2.11-7 (cont'd): Total BYI 02960 Residue Data from Peanuts after Two Foliar Applications of BYI 02960 SL

| | 0. | 1 11 11 023 | OUBL | | | | | | | 0 |
|--|-----------------------------|--------------------|--------------------|-------------------------------------|----------------|-------------------|---------------------------------|----------------------------|----------------------------|--|
| | region, and real) Plot Name | Crop Variety | Commodity | Total Rate b a.s./A (kg a.s./ha) | % Dry @atter a | Sampling interval | BYT (2960 . Residue (418/kg) | DFA Residue | DFEAFRESidue | Poral BY142960 Residue (mg 4 equiv./kg) b |
| 10HA AL Region 201 | 12, | Georgia Greener | Peanut Nutmeat | 0.566 (62410) | NA ° | 7 | 8 | ©.050 <0.050 | \$\text{0.010}\$ | ₩vg: |
| Regio | 0 | Ő | Peanut Natmeat | | NA Y | | ¥0.016 _y | | | <0.070 <0.070 OAvg: ><0.070 |
| RV125- 10HA GA Region 201 | 12, | | Nutmed 0 | Š, | Y NA E | ~ | Q0.0100 (<0.010) | <0.050 <0.030 | <0.000 <0.010 | <0.070 <0.070 Avg: <0.070 |
| RV126- 10HA FL Regio 201 | | | Peanut® Nutmeat | (0. 1 3) | NAS | | <0.040 <0.010 | <0.030 <0.050 | <0.010 <0.010 | <0.070 <0.070 Avg: <0.070 |
| 10HA OK, 06, 201 | STRTD | Tamnuk OLOO | Peanut Numeat | 0,354 (8,397) 7 7 | NA O | | <0.010 \$0.010 | <0.050 <0.050 | <0.010 <0.010 | <0.070 <0.070 Avg: <0.070 |
| 10HA OK, 36, 6, 201 RV128-10DA Regio: 201 | TRTD | Champs | Pearut Nurmeat | *0.368 \$40.412\$ | ÑA | 3 | <0.010 <0.010 <0.010 | <0.050 <0.050 <0.050 | <0.010 <0.010 <0.010 | <0.070 <0.070 Avg: <0.070 <0.070 |
| | | | | | NA NA | 7 | <0.010 | <0.050 | <0.010 | <0.070 <0.070 Avg: <0.070 <0.070 |
| | | | | ¥ * | NA | 14 | <0.010 | <0.050 0.066 | <0.010 | <0.070 Avg: <0.070 0.086 |
| | | | | | NA | 21 | <0.010 <0.010 <0.010 | 0.077 0.054 0.052 | <0.010 <0.010 <0.010 | 0.097 Avg: 0.092 0.074 0.072 |
| | | | | | | | ~0.010 | 0.032 | ~0.010 | Avg: 0.073 |

Tier 2, IIA, Sec. 4, Point 6: Flupyradifurone (BYI 02960)

Table 6.3.2.11-7 (cont'd): Total BYI 02960 Residue Data from Peanuts after Two Foliar Applications of BYI 02960 SL

| | , | | | 1 | • | | | 1 | 1 | 1 | 0 | - ^ |
|----------------------|---|-----------|--|--|--------------------|----------------|---------------------------------------|--|--|--|---|-----|
| Trial Identification | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | Total Rate | % Dry Gatter a | Sampling interval | Y 02960 YY 02960 esidue (mg/k | DFA Residue AQQ Ang a.s. equiv./kg) | DFEAFResidue | Pokal B (mg'ar | |
| RV129- 10DA | , GA, Region 2, 2010 | TRTD | \$. ` | | | √ √ ≈N:Λ | | <0.010 0.010 0.010 0.010 0.010 | © ©0.050 | ©0.0100 <0.0100 ©0.01000 ©0.01000 ©0.01000 | Avg: <0.070 . <0.070 <0.070 Avg: <0.070 | |
| RV130- 10DA | OK, Region 6, 2010 | TRTD | Tamprun G G G G G G G G G G G G G G G G G G G | Peanut Authorized Peanut Autho | 9.367 1 (0.412) | NA NA NA | 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 | <pre><0.010 <0.010 <0.010 <0.010 <0.010 <0.010 0.019 0.011 0.023 0.011</pre> | <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 <0.050 | <0.010 <0.010 <0.010 <0.010 <0.010 <0.010 <0.010 <0.010 | <0.070 <0.070 Avg: <0.070 <0.070 <0.070 Avg: <0.070 <0.070 <0.070 Avg: <0.070 0.070 Avg: <0.070 0.071 Avg: 0.075 0.083 0.071 Avg: 0.077 | |

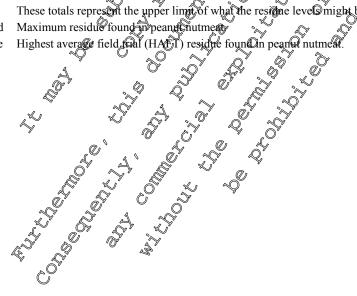
Table 6.3.2.11-7 (cont'd): Total BYI 02960 Residue Data from Peanuts after Two Foliar Applications of BYI 02960 SL

| Trial Identification | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | Total Rate Total A (kg a.s./ha) | % DryMatter a | Sampling interval | BYT 02960 Residue (mg/kg) | DFA Residue | DFEAFResidue | Form BYTOZ960 Residue (mg a sequiv./kg), | |
|----------------------|---|-----------|---------------|-------------------|----------------------------------|---|---|---|--|--|---|---|
| RV131- 10DA | TX, Region 8, 2010 | TRTD | Florida 07 | Peanut Nutmeat | 1 | NA O NA O NA O NA O NA O NA O NA O NA O NA O NA O NA O NA NA | | ×0.010 | 0.050 0.050 0.050 0.050 | ©0.010 <0.010 <0.010 <0.010 <0.010 <0.010 | <0.070 <0.070 %Vvg: | |
| | | | | | | | \$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | \$0.010 \$0.010 \$0.010 \$0.010 \$0.010 | ©0.050 <0.050 ©0.050 <0.050 <0.050 | | <0.070 <0.070 Avg: <0.070 | _ |
| | | | | | | NA Ž | 21 | ©.010 ,<0.010 | ©0.050 <0.050 | <0.010 <0.010 | <0.070 <0.070 Avg: <0.070 | |

- NA = Not Applicable. Dry matter was only determined for the bay matrix.

 Sampling interval is the interval between last application and sampling date.

 Total By I 02960 residue is the com of BY 02960 DFA, and DFKAF residue in parent equivalents. Residue measurements below the analyte LOO were summed into the total BYI 02960 residue value as the analyte LOQ value. These totals represent the upper limit of what the residue leve@might be.





Conclusion

Twelve field trials were conducted to measure the magnitude of total BYI 02960 residue in/on peanut nutmeat following two foliar spray applications of BYI 02960 200 SL. The total BYI 02960 residue data are shown in Table 6.3.2.11-8.

Summary of Residue Data for Total BYI 02960 from Peanut Nutmea Table 6.3.2.11-8:

| | | | | Total BYI (2960 Residue Cevels (ppm), O |
|-------------------|------------------------|---|------------|--|
| Commodity | Plot Name ¹ | Total Application Rate lb a.s/⊄ (kg a.s./ha) | PHI (days) | Min at & PHI |
| Peanut Nutmeat | TRTD | 0.354 to 0.376 (0.397 to 0.421) | 3 - 8 | 12 0.070 0.090 0.090 0.087 0.072 0.072 0.006 |

1 TRTD = treated plot receiving two foliar spray application;
2 HAFT = Highest Average Field Trial
3 calculated on the basis of residue values at the PHI
4 Sampling day showing highest residue.

Total BYI 02960 residues in peanut nutment were very low, most of the trials showed even total residues below the LOO when and the low that the loop when and the loop when and the loop when and the loop when and the loop when and the loop when and the loop when and the loop when and the loop when and the loop when and the loop when and the loop when and the loop when a loop when and the loop when and the loop when a loo residues below the LOQ when analysed an the intended PHI of 7 days. However, samples collected from decline trials indicated that the total BY 102960 residue in peanut nutrieat and not always peak at the PHI. Three of the four decline trials showed maximum residue levels at 14 to 21 days after the last application, but declined thereafter. The overall maximum residue value amounted to 0.097 mg/kg The residue data provided for peanuts are suitable for regulatory purposes. and was detected 14 days after the last treatment.

IIA 6.3.2.12 Oilseeds – soybean

Residue data from NORTH AMERICA

BYI 02960 is to be registered in USA and Canada for use as a seed treatment or foliar treatment in/on soybean. The different use patterns in North America are summarized in Table 6.3.2.12-1.

A total of twenty trials were conducted in soybean. The studies are described below.

| | | | | Target Rate/Application | | | | | | Sp Vol | ray lume | |
|-------------------|---------------------|--------|--------------------------|---|-----------------------|-------------------|---|----------|---------------|--------------------|-----------------|-----------------|
| | | | | nulated ◎ uct (FR) | \(\lambda_1\) | | W | | | | c.° | |
| | | | mL | \ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \ | | Suystan | g A | Table | & O | Adjuvant/ Additive | , | |
| | | | ml . | fl_oz fp/A or fl_oz/ | | ib a.s.A or Ib | a.s.Apa | App. | arget | Adjuvant/ | | |
| Application | Test | No. of | fp/100 | fp/100/1b | Name | as/100/ | a.s./100 | Interval | PH | A cc ditive | CD. | I DII A |
| Type | Substance | Apps | kg sæga | seed | 01 a.s. | ib seed | kg seed | (Days) | (Days) | % (%) | GPA | LPHA |
| Foliar | BYI 02960 200 SL | 2 | % 15 ₂ | 14.0 | BYI 029 6 0 | 0.183 | 20 5 | 90 (| 21 % | 0.25 | 10-50 | 93-467 |
| Seed Treatment | BYI 02960 480 FS | | 188 | | ØYI 0296@ | 0.090 | \$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | | ₽ © H² | NA ¹ | NA ¹ | NA ¹ |

NA = Not applicable.

ECH = Earliest compercial harvest.

| Report | KNA 6.3.2.12/01; 2012; 2012; |
|-------------|---|
| Title | BY 1 02960 200 SL and BY 1 02960 480 S - Magnitud@of the Residue in/on Soybeans |
| Report No & | RARVY011, dated May 16, 2012 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 0 |
| Document | M-46121449-2 |
| Guidelines | TS EPA Residue Chemistry Test Guidelines QPPTS 860.1500, Crop Field Trials |
| | Canada: PMR DACO 7.4.1 Supervised Residue Trial Study |
| Q | A, PMAA DACO 7,40, Residue Declare |
| | OF D: Guideline for the Testing of Chamicals, 509, Crop Field Trial, |
| ~Q | Adopted Sept 7, 2009 2 |
| GLP | Yes O O O |

Twenty field trials were conducted to measure the magnitude of BYI 02960 residues in/on soybean seed, soybean forage and soybear hay following two broadcast foliar spray applications of BYI 02960 200 SL or seed weatment with BYLO 960 480 FS. Since soybean forage and soybean hay (as feed items) are no Comported into Europe, this clossier will focus on soybean seeds, only. Complete information on the study including the data on soybean forage and hay, has been submitted in the Global Joint Review Submission in October 2012.

BY 02960200 SL is a soluble concentrate formulation containing 200 g BYI 02960/L and BYI 02960 480 FS a flowable concentrate formulation containing 480 g BYI 02960/L nominal.

The number and location of field trials conform to the guidance given by the EPA (Table 6.3.2.12-2).



Table 6.3.2.12-2: Trial Numbers and Geographical Locations for BYI 02960 in/on Soybean

| NAFTA Growing Region | Submitted ^a | Requested of |
|--|------------------------|---|
| 1 | | Requested |
| 1A | | |
| 2 | 2 | |
| 3 | | |
| 4 | 3 0 | |
| 5 | 3 0 4 | \$\frac{1}{2}\frac{1}{2 |
| 5A | | |
| 5B | | |
| 5B 6 0 0 0 7 | | |
| 7 | A S | |
| 7 7A 8 9 | | |
| 8 0 4 | | |
| | | |
| 196 | | |
| . 11 | | 29 |
| 11 7 7 7 | | |
| | | |
| 12 A D D D D D D D D D D D D D D D D D D | | |
| Total O | 20 | 20 |

a Four of the twenty trials were decline trials (one in Region 2, we in Region 4, and two in Region 5). The additional decline that were performed to meet EU additional

Material and Methods

Single foliar pray application rates ranged from 0.177 to 0.197 lb BYI 02960/A/application (0.198 to 0.221 kg BYI 02960/ha/application) for the plots designed for the collection of soybean seed samples. Total seasonal foliar spray application rates ranged from 0.359 to 0.382 lb BYI 02960/A (0.403 to 0.428 kg BYI 02960/ha). All foliar spray applications were made at growth stages ranging from BBC/I 11 to 96 (BBCH b): First pair of true leaves unfolded, unifoliolate leaves on the first node; BBCH 96: About 60% of leaves discolored of fallen). The interval between the foliar spray applications was 7 to 70 days. Treated plot receiving two foliar applications of BYI 02960 200 SL for the collection of seed samples were abbreviated as TFTS plots.

All foliar spray applications were made using ground-based equipment. The adjuvant Dyne-Amic was used in all of the applications at 0.25% (v/v) with the exception of trial RV137-10HB, which used Agral 90 at 0.25%, and trial RV139-10HA, which used Unity at 0.25%.

Application rates for the seed treatment plots ranged from 0.028 to 0.045 lb BYI 02960/A (0.032 to 0.051 kg BYI 02960/ha). Treated plot receiving soybean seeds treated with BYI 02960 480 FS for the collection of seed samples were abbreviated as TFTST plots.

| a all a ation of a a a | ollection of seed samples were abbreviated as TFTST plots. Trial Site conditions, including soil characteristics are summarized in Table 6.3.2.12-3. Study ase atterns are summarized in Table 6.3.2.12-4. | | | | | | | | | | |
|------------------------------------|---|--|---|--------------------|-------------------|--------------------------------|----------------|--|--|--|--|
| Trial Site condit patterns are sum | ions, including soil charized in Table 6.3. | naracteristics are 2.12-4. | summa | arized | in Table | 6.3 2.12-3. Study | Dase O | | | | |
| Table 6.3.2.12-3 | | ons for BYI 029 | 60 🐞 S | oybea | 4) | | | | | | |
| Trial Number | Study Location (City, State) | Soil Characteristics ^a Type OM PH | | | CEO | Meteororog Total Rainfall (in) | Temp. Range | | | | |
| RV132-10DA | , NC | Sandy Yoam | 0.9 ₄ ° | 5°6 | 6.8 | 20.05 | 38-94 | | | | |
| RV133-10HA | AL | Sandy Loam | N.P | 6,20 | NÃO | 15.13 | 5 0°-95 | | | | |
| RV134-10DA | , AR | Silt loam | Ň | 4.9 | 4 ,2 | \$\int_{10,99}\$ | 48-96 | | | | |
| RV135-10HA | , MO | Sand S | 1.3 | 6.6 | 93.1 | £ 2.68 | 41-97 | | | | |
| RV136-10HA | , AR | Sit loam | k.J | ~60° | 121 | \$ 6.75 \Q | 44-95 | | | | |
| RV137-10DB | , ON \mathbb{Q}^{r} | & Loans |) 1.8 | % .9 | Q2.8 | D D .06 | 39-82 | | | | |
| RV138-10HA | JE % | Silt Loam | 2. 2 | 7.3 | 10.5 | 29.32 | 43-86 | | | | |
| RV139-10HA | NE O | Silt Loam | % .1 | 6.3 | J ¹⁸ . | 1937 | 53-87 | | | | |
| RV140-10HA | ON | Sand Loan | 2.10 | 7.6 | 14.1 | 15.64 | 39-80 | | | | |
| RV141-10HA | MNC | Cay Loan | \$\frac{1}{2}\frac{1}{2 | 6.3 | 1 24.3 | \$ 15.31 | 47-83 | | | | |
| RV142-10HA | , MO | Silt Clay Loan | 1.2 | 6.1 | § 13.8 | 23.70 | 43-89 | | | | |
| RV143-10HA | ,ON | / Sandy Loam | 2.9 | 7.6 | 16.Y | 13.61 | 38-82 | | | | |
| RV144-10HA | , IA | Silty clay Isam | 4 .35 | © .7 | £4.82 | 26.41 | 42-86 | | | | |
| RV145-10HA | ON A | Sandy Loam | 1.8 | 7.5 | 14.6 | 10.61 | 49-82 | | | | |
| RV146-10DA | , NB | | <u>4.3</u> | <u>.</u> 0 27.7 | 28.2 | 14.69 | 37-87 | | | | |
| RV147-10HA | | Sandy Clay | | 7.1 | 12 | 3.71 | 52-104 | | | | |
| RV148-10HA | , NO | Silt Logm | 2.3 | 6.9 | 11 | 6.71 | 45-90 | | | | |
| RV149-16HA | KS (| Silt Voam | 3.2 | 7.2 | 19.2 | 5.90 | 45-96 | | | | |
| RV150-10HA | JE O | Stry Clay Loan | 3 | 6.5 | 18.4 | 12.64 | 41-89 | | | | |
| RV151-10HA | Z MA | Silty Clay Roam | 3.6 | 6.3 | 21.9 | 18.85 | 38-87 | | | | |

Abbreviations used OM percent organic natter; CEC = cation exchange capacity.

Data is the interval of the month of first application through the month of last sampling. Meteorological data were obtained from Dearby government weather stations.



Table 6.3.2.12-4: Study Use Pattern for BYI 02960 200 SL on Soybean

| | | | Application | | | | | | | | |
|--|--|-------------------------------|-------------|----------------------|---------------------------|-------------------------|----------------------------|-----------------------------|---------------------------|---------------------|--|
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Method | Rming/Growth Stage (BBCH) | Actual Spray Volume GPA | Rate lb a.s./A (kg a.s.Am) | Retreatment faterval (days) | Score (kg acs./ha) | Tank Mix Adjuvants | |
| 10HA | Region 2 2010 | 480 SC | 0 | Soed Teatment | 3 00 Q | × 5 | (0.03 2) | S. | (0.033) | Y° | |
| RV135- 10HA | , MO Region 4 2010 | BYI 02960 480 SC | VRTST | Seed Treytment | \ \ \@0 | | (10.051) | NA ^a | 0.045 (40.051) | NA ^a | |
| RV138- 10HA | Region 5 2010 | BYI 02060 48000 | TOP TST | Seed Treatment | | NATO O | 0.04 | | 0. 6 44 (0.049) | NAª | |
| RV132- 10DA | NC Region 2 2010 | 15 1 029 60 V SL 2000 | TRTS | Broadcast foliar | 800 | 20 (192) | 0.180 | NAO D | 0.362 (0.405) | Dyne-Amic 0.25% v/v | |
| | | | | | & () () | (1 9 8) | 0.182 (0.204) | 10 | | Dyne-Amic 0.25% v/v | |
| RV133- 10HA | Region 2010 | BŸI 02980 , O SL 200 | TRAS | Proadcast foliar | 770 | 18% (167) & | 0.184 (0.207) | NAª | 0.367 (0.411) | Dyne-Amic 0.25% v/v | |
| Ş | | | | | .80 Ž | 25 (230) | 0.183 (0.205) | 10 | | Dyne-Amic 0.25% v/v | |
| RV134- 10DA | Region 4 | BYI 02960 SE-200 | ØRTS. | Broadcast Broadcast | 79 | 20 (188) | 0.183 (0.205) | NAª | 0.365 (0.409) | Dyne-Amic 0.25% v/v | |
| \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | | | | , | 85 | 20 (188) | 0.182 (0.204) | 10 | | Dyne-Amic 0.25% v/v | |
| RV135- 10HA | MO Region | 7 YI 02900 SL 290 | RTS | Broadcast foliar | 92 | 20 (187) | 0.182 (0.204) | NAª | 0.364 (0.408) | Dyne-Amic 0.25% v/v | |
| | | | | | 96 | 20 (186) | 0.182 (0.204) | 8 | | Dyne-Amic 0.25% v/v | |

Table 6.3.2.12-4 (cont'd): Study Use Pattern for BYI 02960 200 SL on Soybean

| | 2.12-4 (cont u). | Application | | | | | | | C | |
|----------------------|---|-------------------------------|-----------|---------------------|---|-------------------------------|---------------------------------------|--------------------------------------|---------------------------------|---|
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Method A | Mining/Growth Stage (BBCH) | Actual Spray Volume GPA | RAGE ID a.S./A (kg a.s.Ma) | Regreatment Interval (days) | Rotal Rate Ova.s./A (kg as./ha) | Tank My Adjurants |
| RV136- 10HA | Region 4 2010 | BYI 02960 SL 200 | | Bréadcast Goliar | 791 Q 781 | 20 (188) (188) | 0.184 0.0.2066 0.183 0.205 | NA ^a | | Dyne-Amic 0.25% v/v 0.25% v/v Dyne-Amic 0.25% v/v |
| RV137- 10DB | Region 5 2010 | BYI 02960 (St. 200, 1) | TRTS | Br@dcast | \$\frac{1}{77} \langle \frac{1}{9} \rangle \text{88} \langle \frac{9}{9} | ©2 (296) (336) (336) | ①.185 (0.20%) (0.197 (0.220) | ČŇA ^a & © Ø 9 | *19 .382 | Agral 90 0.25 % v/v Agral 90 0.25 % v/v |
| RV138- 10HA | Region 5 | BY102960. | TRTS | Brodcast Foliar | 79 | 16 (149) 16 (148) | 0.188 (0.211) 0.182 (0.204) | NA ^a | 0.370 (0.415) | Dyne-Amic 0.25% v/v Dyne-Amic 0.25% v/v |
| RV139- 10HA | , McRegion 2010 | BYL02960 \$200 BYL02960 | TRTS | Broadcast Broadcast | 75 89 | 18 (172) 20 (191) | 0.177 (0.198) 0.183 (0.205) | NA ^a | 0.359 (0.403) | Unity 0.25% v/v Unity 0.25% v/v |
| RV1400 10HA | Region 5 | BYI @ 960 \$1,200 | ØTRTS V | Broadcast foliar | 83 | 14 (130) 14 (132) | 0.183 (0.206) 0.186 (0.209) | NA ^a | 0.370 (0.415) | Dyne-Amic 0.25% v/v Dyne-Amic 0.25% v/v |
| | | 1 | | | | | Conti | inued o | on next p | oage |

Tier 2, IIA, Sec. 4, Point 6: Flupyradifurone (BYI 02960)

Table 6.3.2.12-4 (cont'd): Study Use Pattern for BYI 02960 200 SL on Soybean

| | | | Application | | | | | | | 0 0 |
|----------------------|---|---|-------------|---------------------|---|-----------------------------|--------------------------------------|-----------------------------|--------------------------------------|---|
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Method 20 | Rming/Growth Stage (BBCH) | Actual Spray Volume GPA | Range Ib a.s./A (kg a.s.An) | Retgeatment faterval (days) | Lightal Rafte Chya.s./A (kg 453./ha) | Tank Mix Adjuvants |
| RV141- 10HA | , MN Region 5 2010 | | TRIS | Bræðdcast Goliar | 779 Q 792 | 20 (188) 520 (187) | | | | Dyne-Amic 0.25% v/v 0.25% v/v Dyne-Amic 0.25% v/v |
| RV142- 10HA | Region 5 2010 | BY 02960 () () () () () () () () () (| TR® | | , 79, , , , , , , , , , , , , , , , , , | 21 * (195) | 0.186 (0.202) 0.185 (0.207) | NAQ O Q 10 | 0.365 (0.409) | Dyne-Amic 0.25% v/v Dyne-Amic 0.25% v/v |
| RV143- 10HA | | | | \$ \$ | 80 | | 0.185 (0.207) 0.182 (0.204) | NA ^a | 0.367 (0.411) | Dyne-Amic 0.25% v/v Dyne-Amic 0.25% v/v |
| RV144- 10HA | Region 2010 | BY1 02960 SL 200 SL 200 SL 200 SL 200 | TRYTS | Broadcast foliar | 79 88 | 17 (163) 17 (154) | 0.181 (0.203) 0.184 (0.206) | NA ^a | 0.365 (0.409) | Dyne-Amic 0.25% v/v Dyne-Amic 0.25% v/v |
| RV145- 10HA | Con A Region vs 2000 | BX 1 02966 SL 2067 | THATS | Broadcast foliar | | 14 (129) | 0.183 (0.205) | NA ^a | 0.365 (0.409) | Dyne-Amic 0.25% v/v |
| | | | | | 85 | 14 (131) | 0.182 (0.204) | 7 | | Dyne-Amic 0.25% v/v |

Table 6.3.2.12-4 (cont'd): Study Use Pattern for BYI 02960 200 SL on Soybean

| | , , | Application | | | | | | | | |
|----------------------|---|-------------------------------|-----------|----------------------|----------------------------|-----------------------|---|------------------------------|--------------------------|---------------------------------------|
| | A | ion) | | | | , iicatio | | | · * | |
| | NAFT | mulat | | | (BBC | GPA | | (days) | | |
| tion | State, ar) | t (For | | | Stage | Volume GPA | Ç g a.s. | ţerval | | * * * * * * * * * * * * * * * * * * * |
| ıtifica | (City, | roduc | a | T T | rowth | A CO | `````````````````````````````` b a.s./A (kg a.s.∰ ∩« | ent Fr | (COD) | Adju |
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | thod | Riming/Growth Stage (BBCH) | ual Sp | e lb a. | Religeatment Paterval (days) | Egtal Rafe kg æs./ha) | |
| | | | | Metho | | Act Act | RAGE | | | Tank |
| RV146- 10DA | Region 5 2010 | BYI 02960 SL 200 | TRTS | Broadcast A | ¥79 | 720 (183) (183) | (0.203) | PNAª | 0.366 (0.41 <u>1)</u> | Ďyne-Amic 0.25% v/v |
| | 2010 | , s | | | ~~~ ~~79 | \$\frac{1}{20} | \$\int\text{\$\in\text{\$\ext{\$\in\text{\$\exitin\text{\$\in\text{\$\in\text{\$\in\text{\$\exitin\text{\$\in\text{\$\in\tex | ₩ ₩ 10 ° | | Dyne-Amic |
| | | | | | | ے (190) گ | (0.208) | | | 0.25% v/v |
| RV147- | , KS | © 8 Y ₹/02960% | TR7® | Broadcast (2) | 2 17 P | 20 | 0 00 182 C | D NA& | 0.368 | Dyne-Amic |
| 10HA | Region 5 2011 | BY 02960 SL 200 | | Broadcast@ foliar | | (184) | 0.182 (0.204) | | (0.412) | 0.25% v/v |
| | \$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | | | | 79 | 21 | 9 0.18 5 9 | <i>y</i> 9 | | Dyne-Amic |
| | | | | | a, | O | (0.203) | | | 0.25% v/v |
| RV148- 10HA | Region 5 | BY 102960 SL 200 | TRAS | Broadcast of foliar | 77 | (134) (134) | ©0.186 (0.208) | NAª | 0.370 (0.414) | Dyne-Amic 0.25% v/v |
| | \$2011\$\text{\$\frac{1}{2}\text{\$\frac{1}\text{\$\frac{1}{2}\text{\$\frac{1}{2}\text{\$\frac{1}{2}\text{\$\frac{1}{2}\text{\$\frac{1}{2}\text{\$\frac{1}\text{\$\frac{1}\text{\$\frac{1}\text{\$\frac{1}\text{\$\frac{1}\text{\$\frac{1}\$\f | | | | | W W | | | | |
| | | | | | | © 14 (133) | 0.184 (0.206) | 8 | | Dyne-Amic 0.25% v/v |
| RV149- | KS | BY 92960 | TRIM | Br@adcast | 77 | 16 | 0.186 | NAª | 0.367 | Dyne-Amic |
| 10HA | KS a Region 5 | \$1. 200 ° | | Br@adcast foliar | | (148) | (0.209) | | (0.411) | 0.25% v/v |
| | | | | | 79 | 16 | 0.181 | 10 | | Dyne-Amic |
| | | | | | | (147) | (0.202) | | | 0.25% v/v |
| RV150 10HA | , NE Region | F BYN92960 € \$\L200 | TRTS | Broadcast foliar | 80 | 20 (186) | 0.183 (0.205) | NAª | 0.367 (0.411) | Dyne-Amic 0.25% v/v |
| | 2011 | | W W | | 02 | 20 | 0.104 | o | | Duma Ai- |
| | NE Regions | | Y | | 93 | 20 (191) | 0.184 (0.206) | 8 | | Dyne-Amic 0.25% v/v |
| | | / / | <u> </u> | | | l . | Conti | nued o | on next p | page |
| | F. Company | | | | | | | | 1 | - |



Table 6.3.2.12-4 (cont'd): Study Use Pattern for BYI 02960 200 SL on Soybean

| | | | | | Appl | icatio | n | | | 0. ~ |
|----------------------|---|-------------------------------|-----------|--|--|-----------------------------------|-----------------------|-----------------------------|---|--------------------------------|
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Method A | Aming | Actual Speay Volume GPA (Elga) | RAME II | Relegatment Interval (days) | Lotal Ratechas.s./A kg acs./ha) | ijuvæts |
| RV151- 10HA | , IA Region 5 | BYI 02960 SL 200 | TRTS | Broadcast | 7 79 | &3 €305}√ | (0.208) | NA ^a | ≫0.363 [≪] (0.40 <u>₹</u>) | Dyne-Amic |
| TOTAL | 2011 | 3L 200 | | Broadcast of the state of the s | \(\frac{1}{2}\) \(\frac{1}2\) \(\frac{1}{2}\) \(\frac{1}2\) \(\frac{1}2\) \(\frac{1}2\) \(\frac{1}2\) \(\fraca | | 6 70.178 70.199 | ψ_{10} | | 0.25% v/v Dyne-Amic 0.25% v/v |

a NA = Not applicable

In the 16 harvest trials that received foliar spray applications, duplicate composite samples of soybean seeds were collected at pre-harvest intervals (LPHIs) ranging from 19 to 22 days. The intended pre-harvest interval is 21 days. In four decline trials, duplicate composite soybean seed samples were collected from the treated plots at \$10.000 to 10.0000 to 10.0000 to 10.0000 to

The residue(s) of BVI 02960, DEA, and DEEAT were quantitated by HPLC-MS/MS using stable isotopically labelled internal standards. The individual analyte residues were summed to give a total BYI 02960 residue. Residue measurement below the analyte LOQ were summed into the total BYI 02960 residue value as the analyte LOQ alue.

Findings

Concurrent recoveries of BYL 2960 DFA and DFEAF were measured with each set of samples to verify method performance. All recoveries were corrected for any interferences in corresponding controls. The overall mean of the recoveries for each matrix was within the acceptable range of 70 to 110%, and the sandard deviation values were below 20%. (Table 6.3.2.12-5).



Table 6.3.2.12-5: Summary of Recoveries of BYI 02960 from Soybeans

| Crop Matrix | Analyte | Spike Level (ppm) | Sample Size (n) | Recoveries (%) | | Stan. De� | | | | |
|--------------|-----------|-----------------------------|--------------------|--|------------------------|------------------------------|---------------|---------------|-------|-----|
| | | 0.010 | 12 | 93, 91, 112, 109, 96, 93, 86, 93, 97, 108, 87, 94 | | 9% | | | | |
| | BYI 02960 | 0.050 | 3 | 83, 83, 97 | ₹88% | 8% | | | | |
| | | 0.100 | 2 | 80, 82 | | ∠NA | | | | |
| | D11 02900 | 0.500 | 7 | 3 7, 90, 89, 91 3 9, 84, 96 | 91% | *4% _{@1} | | | | |
| | | 1.000 | 2 | 106,007 | \$07% | NA / | | | | |
| | | 2.000 | 3 | 86,400, 103 | Ç 96% 🔊 | 9 % | | | | |
| | | 4.000 | 3 | 193,98,96 | | <i>9</i> 4% | | | | |
| | | 0.050 | 15 | 80, 94, 79, 82, 76, 80, 94, 83, 92, 78, 80, ° , 83, 78, 75, 88, ° | \$3%,\text{\$\sigma\$} | 6% | | | | |
| | DFA | DFA | DFA | | | 0.100 | 0 | () 5,740 0 L | 75% | οNA |
| Soybean Seed | | | | 0.500 | A7 . @ | ©84, 83,©1, 79, 75, 75, 71 O | <i>1</i> 9% % | 5% | | |
| | | | | | | | | | 1.000 | 2~ |
| | | 2.000 | (3) × | \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ | × 84% | 4% | | | | |
| | | 4.000 | <u>\$3</u> | § \$\frac{1}{2},75\frac{1}{2}6 \text{\$\frac{1}{2}\$} | 74% | 2% | | | | |
| | | 0.600 | 120 | 93, 95, 100, 86, 100, 99, 101, 94, 405, | ≈ 98% | 10% | | | | |
| | | ~~0.050~y | 3 | 84, 102 | 93% | 9% | | | | |
| | DFEAF | [™] 0.1 % 0 | \$\text{2} \tag{4} | 0 4 90 8 0 0 | 88% | NA | | | | |
| | Drear | | 7,0 | 95, 95, 93, 98, 98, 91, 91 | 94% | 3% | | | | |
| | - | A.000 | 3 | 0 6 (101, 10i) | 101% | NA | | | | |
| | | 2.000 | <u>3</u> | 088, 98, 99 | 95% | 6% | | | | |
| | | 40000 ~ | y 3 ×y | © 106, 99, 95 | 100% | 6% | | | | |

a Mean Recovery mathematical average of all recoveries

The freezer storage stability study indicates that BYL02960 sesidues were stable in soybean matrices during frozen storage for at least 18 months prior to analysis. The maximum storage period of frozen samples in this study for BVI 02960 was 266 days. A summary of the storage conditions are shown in the Table 6.3.202-6.

Table 6.3.2, 12-6: Summary of Storage Conditions for Soybeans

| Residue Component(s) | | | Actual Storage Duration months (days) ^b | Interval of Demonstrated Storage Stability months (days) c |
|-------------------------|---------------|----------------|--|--|
| BYI 02960 🔎 | | % % -20 | 9 (266) | 18 (558) |
| DFEAF | Soyber Seed " | ♥ < -20 | 9 (266) | 18 (558) |
| DF & | SoyGean Seed | < -20 | 9 (266) | 18 (558) |

a The maximum average storage temperature is from the time of sample receipt at BRP until sample extraction and is the maximum of all average freezer temperatures at BRP. While preparing for sample analysis, the samples were maintained in a laboratory freezer.

NA not applicable (data set too small)

b The Grage duration is the time from field sampling through the last sample extraction.

and A. . 2012. Storage stability of BYI 02960, difluoroacetic acid, and difluoroethyl-amino-furanone in plant matrices. Bayer CropScience Report No. RARVP046, amended version including 18-month data (KIIA 6.1.1/01).

The total BYI 02960 residue data of soybean seeds following foliar applications of BYI 02960 260 SL or seed treatment with BYI 02960 480 FS are shown in Table 6.3.2.12-7.

Total BYI 02960 Residue Data from Soybeans after Two Foliar Applications of Table 6.3.2.12-7: BYI 02960 SL or a Seed Treatment Application with BYI 02960 480 FS

| | | | | | | | - ~ | | | | |
|--------------|---|-----------|--------------------------|--------------|--------------------------------|------------------|-------|--------------------|------------------------------------|-------------------------------------|--|
| Trial Number | Location (City, State, Region, and Year) | Plot Name | Cop Variety Crop Variety | Kenmodika J | Total Rafe Lb & A (kg a.s./ha) | % Dry Matter & | 6 9 | | DOA Residu@ (mg'a.s. pquiv./kg) | O O DRAFRESIQUE (mg a.s. &quiv./kg) | Tokal BYI Ozyko Residue (mg a.s. 🛴 equiv.kg) b |
| RV132- | NG | TRTS | AG5695 | Seed | 7,0.362 (0.403) | 85 | * 9 × | >0.02 0.02 € | <0.05 <0.05 | 0.01 | 0.08 |
| 10DA | , NC, | | AGS BY | /\(\hat{\pi} | (0.403) | | | 0.020 | <0.03 | 0.02 | 0.09 Avg: |
| | Region 2, 2010 | | | ~ | | \sum_{λ} | O' | | | | 0.09 |
| | | | | | | 880 | 14 (| O.01 | <0.05 | 0.01 | 0.07 |
| | | Q | <i>y</i> | ٠(ر | | L OF | , Ø | <0.01 <0.01 | <0.05 <0.05 | 0.02 | 0.08 |
| | | | | | - | | | ~ Q | Ö | | Avg: |
| | | | | | y _c' | * | J* .* | Ş' <u></u> | ¥ | | 0.07 |
| | | | D & O | | | \$ 8, | 21 | 0.06) <0.01 | <0.05 <0.05 | 0.02 0.02 | 0.08 0.08 |
| | Ü | | W. W. | | ~~ | | | \$.01 | <0.03 | 0.02 | Avg: |
| | l S | | | × % | | | | W * | | | 0.08 |
| | | | | | | | 28 | 0.01 | < 0.05 | 0.02 | 0.08 |
| | | | | | | | . W | 0.01 | < 0.05 | 0.02 | 0.08 |
| | , Q | % n 8 | | | ~ <i>Q</i>) | . 0 | | | | | Avg: |
| | Ç, | | | Ş | | | 2.5 | 0.01 | 0.05 | 0.02 | 0.08 |
| | | | | | 4. 4 | 89 | 35 | 0.01 0.01 | <0.05 <0.05 | 0.02 0.02 | 0.08 0.08 |
| | | 4 | Š ,~ . | W | | | | 0.01 | <0.03 | 0.02 | Avg: |
| | Q | | | | 4 | | | | | | 0.08 |
| RV133- | | TRIS | Stine 4782,4 | Seed | 0.367 0.411) | 90 | 21 | 0.24 | 0.07 | 0.08 | 0.38 |
| 10HA | AL, Region 2, 2010 | | Q" Q" | | % (411) | | | 0.27 | 0.07 | 0.10 | 0.43 |
| | 2, 2010 | | | | 1 | | | | | | Avg: |
| D 1 1 20% a | | 2 4 | | ~~() | | 0.1 | 121 | .0.01 | 0.75 | 0.01 | 0.41 |
| RV133 | J. A.I. Region | TRAT | Some 47-82-4 | Seed | 0.028 (0.032) | 91 | 131 | <0.01 <0.01 | 0.75 0.88 | 0.01 0.01 | 0.76 0.88 |
| IOIIA | 2, 2010 | 4 | | | (0.032) | | | <0.01 | 0.00 | 0.01 | Avg: |
| | | | | | | | | | | | 0.82 |
| L | | | | 1 | ı | | | Cont | inued on | nevt na | σρ |
| ~ | | |) * | | | | | Comi | тиви от | нем ра | ge |
| | AL, Region 2, 200 0 |) | | | | | | | | | |
| Æ, | | | | | | | | | | | |
| * | Ŏ [*] | | | | | | | | | | |
| | <i>II</i> | | | | | | | | | | |

Table 6.3.2.12-7 (cont'd): Total BYI 02960 Residue Data from Soybeans after Two Foliar Applications of BYI 02960 SL or a Seed Treatment Application with BYI 02960 480 FS

| | | | 11 02900 SL (| 1 | | 1 | 1 | | | ı | rs M |
|----------------|---|-----------|---|------------------|--------------------------------------|--------------|------------------------------|---|----------------------------------|-------------------------------------|--------------------------------------|
| Trial Number | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | Tegal Rate Lb a.s./A (kg a.s./ha) | % Dry Matter | Sampling interval (davs)≉ | BYI 02960 (See See See See See See See See See Se | DEA Residue (mg as Aguiv./kg) | DFKAFResidue Jmg a.Svejujv./kg/2 | Total BYI 02960 Residuke (mg a.s. 2) |
| RV134- 10DA | AD Pagion | TRTS | Armor 47G7 | Seed | 0.365 (0.409) | 89 K | 10 | 0.56 | 0.29 | 0.18 | 18 |
| TODA | AR, Region 4, 2010 | | | | | | | 0.56 | 0.27 | | Avg: |
| | | | (| | | 94 | 15.0 | 0.77 0.85 | 0.38 0 3 6 | 0.21 | 1,4 4.4 Avg. |
| | | | | | | * | A | | | | Avg: 1.4 |
| | | | | | | 25° |)* 210 | 0.62 | 0,80 | Q.18 | 1.4 |
| | | | | | | | 210 | 0.00 | 0.80 | 0.18 | 1.2 |
| | | | 2 /N | Ö Ö | | | | | 0.26 | / | Avg: 1.2 |
| | | ₩. | | | Q. | \$3 ° | .280 | 0,37 29,37 | 0.26 | 0.10 0.11 | 0.73 0.75 |
| | | | | | | (n | J' { | Y «C | | ,,,, | Avg: 0.74 |
| | | | | | | %y 94 | <u>()</u> | 0(48 | 0.26 | 0.12 | 0.74 |
| | | | | \ \ \ \ | ~ W | | | ©,0.40 | 0.22 | 0.10 | 0.72 Avg: |
| | | | | | | 48 | W | | | | Avg: 0.79 |
| RV135- 10HA | MO Megion 4, | TRUS | Stine 4782-4 | Seed | 0.364 0.408 | 93 | Z 0 | <0.01 0.02 | <0.05 <0.05 | <0.01 <0.01 | 0.07 0.08 |
| | 2010 | TRIST | Stine 4782-4 Stine 4782-4 Pioneer 946/80 | | | | | | | | Avg: 0.08 |
| RV135- | , MQ | TRIST | Stine 4782-4 | Seed | $0^{0.045}$ | 92 | 138 | <0.01 | 0.48 0.47 | <0.01 <0.01 | 0.50 0.49 |
| 10HA | Region A, | | | | - (()) | | | <0.01 | 0.47 | <0.01 | Avg: |
| DV126 | 4 | 79/TC * | Diorfort | Seed 1 | © 0.367 | 94 | 20 | 0.09 | 0.19 | 0.10 | 0.50 |
| 10HA | XR, Region | | 944/180 |) Seed | (0.411) | 74 | 20 | 0.09 | 0.19 | 0.10 | 0.37 |
| | * 4, 2010 | | Pioneer 944/180 | | | | | | | | Avg: 0.38 |
| | (V) 4 | | | , | | | | Conti | nued on | next pa | ge |
| | | | Pioneer 944/180 | | | | | | | | |
| Č | | | | | | | | | | | |

Table 6.3.2.12-7 (cont'd): Total BYI 02960 Residue Data from Soybeans after Two Foliar Applications of BYI 02960 SL or a Seed Treatment Application with BYI 02960 480 FS

| | T | 1 | 1102900 SL 0 | | | | | ı | ı | ı | 0 |
|-----------------|---|-----------|------------------|--|--------------------------------------|------------------|--------------------------|---------------------|----------------------------------|--------------------------------------|----------------------|
| Trial Number | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | Togal Rate Lb a.s./A (kg a.s./ha) | % Dry Matter | Sampling interval (days) | | DEN Residue (mg as eguiv./kg) | DFKAFResidue Img a.Sogiųiv./kg/2/ | Total BY1 02960 |
| RV137- 10DB | ON Pasian | TRTS | Secan RCAT | Seed | 0.382 (0.428) | 52 Å | 8 | 0.20 | 0.30 | 0.10 0.40 | 0.61 |
| 1000 | ON, Region 5, 2010 | | Matrix | Sect of the section o | (0.420) | ^ | | 0.16 | 0.20 | | Ãvg: 0.58 |
| | | | | y . | | 0° 75% | ر 1400 | \$ 0.216 | 0.46 | 0.45 | 0.00 |
| | | | 4. | | | 750 V | 14.0 | 0.21 0.22 | 0.46 051 | 0.45 © 16 | 0.82 9.89 Avg. |
| | | | | | |) | | | 2 1 | | Avg: 0.85 |
| | | | | | | 80 | 210 | 0.28 0.25 | 0.64 | 0.18 2.17 | 0.95 |
| | | | | | | | | 0.25 | 4 9 | Ø.17 | 0.91 Avg: |
| | | | 17 i 📞 ' | O Ó | | | * | | | V | 0.93 |
| | | , D | | | <i>O</i> , | \$3 \$\$ | .280 | 0,38 | 0.91 Ø0.65 | 0.21 0.24 | 1.1 1.2 |
| | | | | | Y S | , « | | 7 ~C | | 0.21 | Avg: |
| | | | | | | %y 8 5 | ŠŠ | 031 | 0.20 | 0.20 | 1.2 |
| | | P | | | | , 03 | | $\mathbb{Z}^{0.26}$ | 0.17 | 0.17 | 0.83 |
| | | | NC+3051R | , Speed | | (N) | S | ď | | | Avg: 0.94 |
| RV138- | | TRUS | NC+3051R | ∘Seed | ©:370 (0.415) | D91 _s | JY9 | 0.07 | 0.09 | 0.10 | 0.26 |
| 10HA | N®, Region 5, 2010 | | | Ö' Ç | (0.415) | | ø | 0.07 | 0.08 | 0.09 | 0.24 Avg: |
| | X | TRIST | | | <i>(a)</i> | \ | | | | | Avg: 0.25 |
| RV138- 10HA | , N Ø, | TRTST | © XC+3051R | Seed | $0^{0.044}$ | 91 | 134 | <0.01 <0.01 | 0.12 0.11 | <0.01 <0.01 | 0.14 0.13 |
| | Region 5, | \$* | N C+3051R | | | | | | | | Avg: |
| RV139- | ∞ Ø10 ℃ , NE, | TRTS 2 | NC + 2731R | Seed S | © 0.359 | 91 | 20 | 0.03 | 0.10 | 0.05 | 0.13 |
| 10HA | Region 5, | | | | (0.403) | | | 0.04 | 0.11 | 0.05 | 0.20 |
| | 2010 | | | | | | | | | | Avg: 0.19 |
| RV140- | , | TRTS | 90M01 | Seed | 0.370 | 85 | 20 | <0.01 | <0.05 | <0.01 | 0.07 |
| 10HA | ON, Region 502010 | | | | (0.415) | | | <0.01 | <0.05 | <0.01 | 0.07 Avg: |
| | | | | | | | | | | | 0.07 |
| RV141- 10HA: | , MN Region | TRTS | AG 0808 | Seed | 0.367 (0.411) | 87 | 22 | 0.16 0.15 | 0.49 0.52 | 0.07 0.07 | 0.72 0.74 |
| | \$4,2010\$ | | | | (| | | | | | Avg: |
| ~~ <u>~</u> | Q ^a | | | | | | | | | | 0.73 |

Table 6.3.2.12-7 (cont'd): Total BYI 02960 Residue Data from Soybeans after Two Foliar Applications of BYI 02960 SL or a Seed Treatment Application with BYI 02960 480 FS

| | | 1 | | | Ī | | - I | | 1 | 1 | 0 |
|--------------|---|-----------|-------------------|-----------|--------------------------------------|---|------------------------------|-----------------------------|---------------------------------|------------------------------------|--------------------------------------|
| Trial Number | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | Toga, Rate Lb a.s./A (kg a.s./ha) | % Dry Matter | Sampling interval (days)≉ | BYI 02960 (Residue (mg/kg)) | DE Residue (mg as Aquiv./kg) | DFKAFResidue Jmg a.Steguiv./kg/ | Total BY1 02960 Residue (smg a.s. |
| RV142- | 2 | TRTS | Asgrow3803 | Seed | © 0.365 | 914 | ž 21 | 0.19 | 90.11 | 0.0€ | 0.35 |
| 10HA | MO, Region 5, 2010 | | | | (0.409) © . S | | | 0.24 | 0X0 | 0.64 | 039 Avg: 0.37 |
| RV143- | , | TRTS | DKBOO-99 (| Seed 🤅 | 0.366 | 82 | 20_0 | r 0.0 2 | <0.05 <005 | <0301 | 0.08 |
| 10HA | ON, Region 5, 2010 | | | | (0. 4) 71) | 8257 Q | | 0.02 | | <0.01 .01 | 9.08 Avg: 0.08 |
| RV144- | , | TRTS | Pioseer & 92Y80 ® | Seed | 0.365 (0.409) | N. S. S. S. S. S. S. S. S. S. S. S. S. S. | 210 | 0.02 | <0.005 | 0.01 0.01 | 0.08 |
| 10HA | IA, Region | | Ø2Y80 Ø | | (0.409) | | O | 0:91 | 3 0.05 | 9 .01 | 0.08 |
| RV145- | 5, 2010 | TDTa | 2 2 | | | | | | <0.05 | × 0.01 | Avg: 0.08 |
| | | TRT& | 90M40 | Seed | 0.365 (0.409) | DO. | .200 | <0.01 ×0.01 | | < 0.01 | 0.07 |
| 10HA | , ON, | , Q | 90M40 | | (0.40) | <i>J</i> | Ş', | *9 :01 | \$ 0.05 | < 0.01 | 0.07 |
| | Region 5, 2010 | | | | | % 91 | <u></u> | | | | Avg: 0.07 |
| RV146- | , i | TRTS | Asgrow | Seed | 366 | 91 | @ 0 | <0,01 | < 0.05 | < 0.01 | 0.07 |
| 10DA | ND, Region 5, 2010 | | (%) (%) (%) | | Ø366 Ø.411)Ø | | | ©.01 | <0.05 | <0.01 | 0.07 Avg: 0.07 |
| | | | , w | , Q | | 92 | , G 15 | < 0.01 | < 0.05 | < 0.01 | 0.07 |
| | , Q | √ n 8 | | | | ~ | \mathcal{S} | < 0.01 | < 0.05 | < 0.01 | 0.07 |
| | | | | | | | | | | | Avg: 0.07 |
| | . \$ | 4 | | | | 92 | 21 | < 0.01 | < 0.05 | < 0.01 | 0.07 |
| | | 4 | y yʻ. |) | | | | < 0.01 | < 0.05 | < 0.01 | 0.07 |
| | | | | | | | | | | | Avg: 0.07 |
| | 4 | | 9' 45 | | Į į | 93 | 28 | < 0.01 | < 0.05 | < 0.01 | 0.07 |
| e e | | | | | 1 | | | < 0.01 | < 0.05 | < 0.01 | 0.07 |
| | | | Pioneer 93Y70 | | | | | | | | Avg: 0.07 |
| | @.\ |) 'U' | | J | | 77 | 35 | < 0.01 | < 0.05 | < 0.01 | 0.07 |
| | A A | | | | | | | < 0.01 | < 0.05 | < 0.01 | 0.07 |
| | | | | | | | | | | | Avg: 0.07 |
| RV147- | , <u>,</u> | TRTS | Pioneer | Seed | 0.368 | 84 | 20 | 1.10 | 1.71 | 1.02 | 3.8 ° |
| 10HA | KS Region | | 93Y70 | | (0.412) | | | 0.94 | 1.52 | 0.90 | 3.4 |
| | KS Region 2011 | | | | | | | | | | Avg: 3.6 d |
| | ·)) · — — — — — — — — — — — — — — — — — | | | | | | | | | | |

Table 6.3.2.12-7 (cont'd): Total BYI 02960 Residue Data from Soybeans after Two Foliar Applications of BYI 02960 SL or a Seed Treatment Application with BYI 02960 480 FS

| | | | | | | 1 | | | | | 0 |
|--------------|---|-----------|--------------|-----------|--------------------------------------|--------------|--------------------------|---------------------------|---------------------------------|------------------------------------|---|
| Trial Number | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | Togal Rate Lb a.s./A (kg a.s./ha) | % Dry Matter | Sampling interval (days) | BYI 02960 Residue (mg/kg) | DE Residue (mg an Gguiv./kg) | DFLAFResidue Img a.Skiquiv./kgl | Total BYI 02960 "C Residite and a.s. A. A. |
| RV148- | 2 | TRTS | S28-B4 | Seed . | 0.370 | 91 & | , 19 | 0.08 | 0.38 | 0.00 | 0.54 |
| 10HA | NE, Region | | | 4 | (0.414) | Q, | l & | 0.06 | 0.36 | 0.85 | 0,48 |
| | 5, 2011 | | | Q0" | | Y | | ~ | \O' | | Q Avg: 0.50 |
| | | | | ¥., | a° S | , D | | | | | 0.50 |
| RV149- | | TRTS | Willcross (| Seed (| 0.367 | 85 | 19.0 | 0.28 | 0.25 0.27 | 0.40 | 0.63 |
| 10HA | KS, Region | | RR2428N | | (0.471) | Q, | | 0.27 | 0027 | 0.40 0012 | 9 .66 |
| | 5, 2011 | | | | ~ ? | · | | | K) | | Avg: |
| | | | Ű ú | ~ J | Q" ,\Y | Ĺ | Y | | | <0.01 <0.01 | 0.64 |
| RV150- | , NE, | TRTS | 16501 RR | Seed | 0.367 | 90 | 210 | <0.01 <0.01 | <0.005 | ≤ 0.01 | 0.07 |
| 10HA | Region 5, | | | | (0.4/11) | | 8 | <0.001 | 50.05 | 30 .01 | 0.07 |
| | 2011 | | | | | | | Õ (| | 7 | Avg: |
| | | | | 4(1) | | Q | (| | | | 0.07 |
| RV151- | | TRT | Stine 2862 | Seed | 0.363 | 188 × | .290 | 0.05 | 0.09 | 0.12 | 0.26 |
| 10HA | , | | | Seed | (09407) | ,,,, | Ş" | ~9 ,706 | Ø0.09 | 0.13 | 0.28 |
| | IA, Region | | | | | , * | لا |) | 7 | | Avg: |
| | 5, 2011 | | | | | | Q. | | | | 0.27 |

- Sampling interval is the interval between last application and sampling date
- Total BYI 02960 residue is the sum of BYI 02960, DEA, and DFEAF residue is parent equivalents. Residue measurements below the analyte LOQ were summer into the total BYI 02960 residue value as the analyte LOQ value. These totals present the upper limit of what the residue levels mught be
- Maximum residue found in soybean seed from foliar treated plan samples collected at a target 21-day PHI.
- seed from what treated plot samples collected at a target 21-day PHI.

Conclusion 3

Twenty field trials were conducted to measure the magnitude of BYI 02960 residues in/on soybean seed following two broadcast f The total BYI 02960 residue data are summarized in Table 6.3.2.12-8. BYI 02960 480 FS

Table 6.3.2.12-8: Summary of Residue Data for Total BYI 02960 from Soybeans

| | | _ | | Total BYI 02960 Residue Levels (ppm) | | | | | | | | | |
|-----------------|------------------------|--|--------------|--------------------------------------|--|---------------|------------------|--------|---------------------|-----------|--|--|--|
| Commodity | Plot Name ¹ | Total Application Rate Ib a.s/ (kg a.s./ha) | PHI (days) | u | Min at PHI | Max at PHI | Max after PHI | AART 2 | Median ³ | Mean King | | | |
| Soybean Seed | TRTS | 0.359 to 0.382 (0.403 to 0.428) | 19 – 22 | 20 | <lod< td=""><td>3.8</td><td>1.2 (28)</td><td>3.6</td><td>20²6</td><td>0.48 0.80</td></lod<> | 3.8 | 1.2 (28) | 3.6 | 20 ² 6 | 0.48 0.80 | | | |
| Soybean Seed | TRTST | 0.028 to 0.045 (0.032 to 0.051) | 131 – 138 | 3 | 0.11 | 0.89 | NA ⁵ | 0.82 | 0.48 | 0 37 832 | | | |

- TRTS = Treated plot receiving two foliar applications of By 02960 200 SL for the collection of seed samples; TRTST = Treated plot receiving soybean seeds treated with BYI 02960 480 FS for the collection of seed samples
- HAFT = Highest Average Field Trial
- calculated on the basis of residue values at the PHI (3
- Sampling day showing highest residue

 Not applicable, since no decline trials were conducted after seed freetment

Not applicable, since no decline trials were constituted after send treetment.

Residues in samples collected from for ar treatment plots, were imapprox the same range as the residues in samples collected from seed treatment plots. However the overall maximum residue was detected in a soybean seed sample collected after foliar treatment the total residue in this plot was by a factor of approx. 10 higher compared to the average residue level indicating that the use pattern with the foliar treatment can be more concal in respect to residues.

Samples collected from decline trials indicated that the total BY 00296 residue in soybean seeds decrease with the time. Even if the maximum residue level was detected after the PHI, the residues declined until the final sampling event. The overall maximum residue value was detected at the PHI of 21 days and was significantly higher than the residue value detected after the PHI.

The residue data provided for soybean seeds are suitable for regulatory purposes.



IIA 6.3.2.13 Oilseeds - cotton seed

Residue data from NORTH AMERICA

BYI 02960 is to be registered in USA and Canada for use as a foliar treatment in conton see subgroup (Crop Subgroup 20C). The use pattern in North America is summarized in Table 6.3 1.

Target Use Patterns for the Application of BYI 02960 in/on Cotton seed Table 6.3.2.13-1a: (Crop Subgroup 20C) in North America

| | | | Form | Targe | t Rate Appli | 0 .4 | | V V Tar s ot | | | Sp Øol | ray ume |
|-------------|---------------------|--------|------|---------|----------------------|-----------------------------------|----------|----------------------------|------------|----------------------|-----------|------------|
| Application | Test | No. of | | ct (FP) | Active St Name of | bstance | e (a.s.) | Target App. Interval | Target | Adjuvant Additive | e o | |
| * * | Substance | | | fl oz/A | as | 6 ≈a,s./A _≈ | | (Days) | | (%) | | LPHA |
| Foliar | BYI 02960 200 SL | 2 | 415 | ~~~ (| BYN 02960 | 0.183 | D L. | » . O | % 4 | Ø.25 1 | 10-50 | 93-467 |

1 Adjuvant/Additive = Dyne-Amic or any non-ion surfaction

A total of twelve trials were conducted in cotton after foliar spray appliaction. The studies are described below. In parallel, three residue trials were conducted with BYI 02960 480 FS following a seed treatment application. The seed treatment are presented below

Target Use Patterns for the Application of BYI 02000 in/on Cotton seed Subgroup Table 6.3.2.13-1b: (Crop(Subgroop 2009) in North America @

| | | | | ∜, ○ Tar g e | Rate Appli | ic@fion | | | | | | ray ume |
|-------------------|---------------------|--------|-----------------|------------------------|------------|--------------------------------|-------------------|---------------|------------------|--------------------|------------------|-----------------|
| ° & | 2/ | ₩. | Pro/du | ulated ct (FP) | | bstance | e (a.s.) | Target | | | | |
| Application | Test | No. of | mail/ 100 kg | © fl ,oz/10€ | Noma of. | lb <a.s. <br="">.100 lb</a.s.> | kga.s./ 100 kg | App. Interval | Target PHI | Adjuvant /Additive | ~ ~ . | |
| Type | Substance | Apps | seeu | ID SORU | | Secu | seeu | (Days) | (Days) | (%) | GPA | LPHA |
| Seed Treatment | BYI 02060 480 FS | | 3 042 | Ø6.0 | PYI 02960 | 0.5004 | 0.500^4 | NA^1 | ECH ² | NA ¹ | NA ¹ | NA ¹ |

- 2 ECH = Conflict commercial harvest

| Report: | KIIA 6.3.2 43/01 and A. M. ; 2012 |
|-------------|---|
| Title: | BY 10296 200 St and BM 480 FS - Magnitude of the Residue in/on Cotton (Crop |
| Title. | Subgroup 20C) |
| Report No | RARY Y009, Lated June 1, 2012. |
| Report No S | M ₂ 431910-01-2 |
| Guidelines: | S. EPA Residue Chemistry Test Guidelines OPPTS 860.1500, Crop Field Trials |
| | Canada. PMRA DACO 7.4.1, Supervised Residue Trial Study |
| | PMRA DACO 7.4.2, Residue Decline |
| C | OECD: Guidelines for the Testing of Chemicals, 509, Crop Field Trial, |
| | Adopted Sept. 7, 2009. |
| GLP | Yes |



Twelve field trials were conducted to measure the magnitude of BYI 02960 residues in/on cotton (undelinted cotton seed and gin trash) following two foliar spray applications of BYI 02960 200 SIC. Three of these field trials also included plots to measure the magnitude of BYI 02960 residues in the same matrices following the planting of seed treated with BYI 02960 480 FS. Since cotton gin trash (as feed item) is not imported into Europe, this dossier will focus on cotton seeds, only. Complete information on the study, including the data on cotton gin trash, has been submitted in the Global Joint Review Submission in October 2012.

BYI 02960 200 SL is a soluble concentrate formulation containing 200 g BYI 02960/L and BYO 2960 480 FS is a flowable concentrate containing 480 g FYI 02960/L. The number and location of field trials conform to the guidance given by the EPA (Table 6.3.2.13-2).

Table 6.3.2.13-2: Trial Numbers and Geographical Locations for BYI 02960 in/of Cotton

| NAFTA Growing Region | Submitted. Submit | Requested |
|-------------------------|--|--|
| 1 | | |
| 1A | | |
| 2 | | |
| 3 | | 4 7 9 9 |
| 4 | | |
| 5 | | |
| 5 5A 5B 6 | | |
| 5B | | |
| 6 0 | | |
| 77A | | |
| ⁷ 7A | | A Property of the Control of the Con |
| 8 | A 0 24 0 0 0 | 4 |
| 9 | | |
| 10 | | 3 |
| (D) | | |
| 12 | | |
| 13 | | |
| 13 14 Total | | |
| Total & | \$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | 12 |

a Four decline trials were performed to meet EU requirements.



Material and Methods

Individual foliar application rates ranged from 0.180 to 0.191 lb BYI 02960/A/application (0.202 to o 0.215 kg BYI 02960/ha/application). Seasonal foliar application rates ranged from 0.361 to 0.379 b BYI 02960/A (0.404 to 0.425 kg BYI 02960/ha). All applications were made at growth stages on ging from BBCH 82 to 89 (BBCH 82: about 20% of bolls open; BBCH 89: about 90% of bolls open). The interval between the applications was 7 to 10 days. For plots receiving treated seed, application ranged from 0.042 to 0.055 lb BYI 02960/A (0.047 to 0.061 kg BYI 02960/ha).

All foliar applications were made using ground-based equipment. The adjuvant Dy in all of the spray applications at 0.25% (v/v).

Trial Site conditions, including soil characteristics are summarized in Table 9.3.2 patterns are summarized in Table 6.3.2.13-4.

Trial Site Conditions for BY 02969 on Cotton Table 6.3.2.13-3:

| | | | <i>∞</i> . <i>™</i> | (O) . | | | |
|----------------|-------------------------------|-----------------|---------------------|-------------------|--------------------|------------|------------|
| | | Soil Cha | uraeteristi | cs a | | Metorologi | cal Data b |
| Study Location | Trial Number | | | | OEC N | Total & | Temp. |
| (City, State) | Triai Number | jo Type 💸 | % @Ni | p | ODEC | (Rainfált | Range |
| | | Type O | \@' | Q ^y | O* 8 | (in) | (°F) |
| , CA | RV108-4ØHA _{&} | Sandy Loam | 0.7 | 7.7 | 7.8 | 0.65 | 53-90 |
| , CA | RV109-10HAQ" | Sandy Loam | 1.7 | .85° | 3 4.5 | پي 9.93 | 42-63 |
| , LA | RV110-16TA | Silo Loan | . 0 .83 | √7.0 _© | 9.66 Ô | 1.91 | 68-92 |
| , VA | RV111-10HA | Sandy Loam | 1.8 | 6.40 | 6 √ | 16.99 | 48-88 |
| , TX | RV 62-10 PA | Clay Clay | 0.58 | % 2 | \$ 0.4 | 6.16 | 51-93 |
| , CA | 113-10НА | Sandy Loany | 0.58 | ₹5.7° | © [®] 5.1 | 0.81 | 49-96 |
| , TX | ∂ŘV114J10HA | Clay | 2.60 | & | 42.7 | 15.97 | 58-103 |
| TX | RYM5-10HÅ | Sandy Clay Loam | J \$1 | 9 .9 | 12.84 | 11.99 | 48-94 |
| MS | , K W116, P ODA | Siil Loam | 0.9 | 6.3 | 10.1 | 5.54 | 44-93 |
| , AR | PRV117-10D | Char O | 1.6 | 6 | 21.2 | 9.36 | 41-79 |
| , TX | RXT118-1000A | Tay S | 2.6 | 8 | 42.7 | 3.86 | 57-103 |
| , OKÇ | 0RV118-10DA | Sandy Loam | 0.8 | 6.4 | 7.9 | 4.37 | 36-76 |

Abbreviations used: %OM = percent organic matter; CEC * oation exchange capacity .

natter to tirst application ment weather stations. Data is or the interval of the month of first application through the month of last sampling. Meteorological data were



Study Use Pattern for BYI 02960 200 SL and BYI 02960 480 FS on Cotton Table 6.3.2.13-4:

| | 4 | | | | App | licatio | n | | | 0 |
|----------------------|---|----------------------------------|-----------|----------------------|--|---------------------------------|--------------------------------------|--------------------------------|--------------------------------------|--|
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Method | Timing/Gowth Stage (BBCH) | Actual Spray Volume GPA | Rate Ib a:S:]A (kg a.s./ha) | Retreatment Interval (dais) | Fotal Rafe 10 a.s./A (kgas./ha) 🚓 | CO L'S COL Tank Mix Adjustints L'M |
| RV108- 10HA | , CA Region 10 2010 | BYI 02960 200 SL | TRTD | Brook ast foliar | BBCH 83 83 BBCH 85 85 85 85 85 85 85 85 | 30 (283) 31 (289) | © 0.188 (0.210) 0.191 (0.215) | | @.379 @ (0.425) | Dyne-Onic 0.25% v/v Dyne-Omic 0.25% v/v |
| RV109- 10HA | CA Region 10 2010 | BYI 02960 200 SQ | TRTE | Broadcast foliar | BBCH 83 | (285) (285) (29) (272) | (0.20 1) | | (2) 367 (0.412) | Dyne-Amic 0.25% v/v Dyne-Amic 0.25% v/v |
| RV110- 10HA | Region 42010 | BX 702960 200 St | TRTD | Broad ast | BBCH 85 85 BBCH 87 | 2 17 (161) | 0.183 0.205 0.186 (0.209) | NA ^a | 0.369 (0.414) | Dyne-Amic 0.25% v/v Dyne-Amic 0.25% v/v |
| RV111- | Region 2 | BY502960° | | Broad ast | BBCH 87 87 BBCH | ②0 (186) 20 | 0.183 (0.205) | NA ^a | 0.367 (0.411) | Dyne-Amic 0.25% v/v Dyne-Amic |
| RV112- 2 10HA | Region 82010 | BYQ02960 200 St | TRTD | Broaite ast to trans | | (188) 15 (143) 15 | (0.206) 0.184 (0.206) 0.184 | NA ^a | 0.368 (0.412) | 0.25% v/v Dyne-Amic 0.25% v/v Dyne-Amic |
| | | | , Q | | 88 | (142) | (0.207) | | ued on n | 0.25% v/v ext page |



Table 6.3.2.13-4 (cont'd): Study Use Pattern for BYI 02960 200 SL and BYI 02960 480 FS on Cotton

| | A | | | | App | licatio | n | | | @.° |
|----------------------|---|----------------------------------|----------------|-----------------------|-------------------------------------|-------------------------------------|--|----------------------|------------------------------------|--|
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Method | Timing/Cowth Stage (BBCH) | Actual Spray Volume GPA | Rate Ib a.S./A (kg a.s./ha) | Retreatment Interval | Potal Rake th a.s./A (kgaz, ha) | |
| RV113- 10HA | , CA Region 10 2010 | BYI 02960 200 SL | TRTD | Broadcast foliar | BBCH 82 C BBCH 87 C | 33 (308) 33 (308) | ©0.181 (0.2020) 0.182 (0.204) | NA*\ | | Dyne-Emic 0.25% v/v Dyne-Amic 0.25% v/v |
| RV113- 10HA | , CA Region 10 2010 | BYI 02960 480 FS | TRTSOT | Seed Togatment | BBCH, | NA C | 0.042 | NAª | \$0.042 (0.04%) | NA ^a |
| RV114- 10HA | | BYI 02%0 200 SL | TRED | Br@adcast Froliar | BBCH 84 S BBCH 87 87 | 18 (172) (172) 20 (183) | 0.1827 (0.204) 0.1845 (0.206) | NA S 7 | 0.366 (0.410) | Dyne-Amic 0.25% v/v Dyne-Amic 0.25% v/v |
| RV114- 10HA | Region 82010 | BMI 02960 480 FS | TRTSP | Seed Treatment | BBCH 2 | NA ^a | 0.055 (0.061) | NAª | 0.055 (0.061) | NAª |
| RV115-25 10HA | Region 8 2010 | BY002960 200 Sk | TRTD. | Broadcast foriar & | BBCH 84 BBCH 087 | ②20 (187) 20 (183) | 0.185 (0.207) 0.181 (0.203) | NA ^a | 0.366 (0.410) | Dyne-Amic 0.25% v/v Dyne-Amic 0.25% v/v |
| RV115- 7 | Region 8 20,0 | BYI.02960 480 FS | FR TST: | Seed Treament | BBCH 00 | NA | 0.054 (0.060) | NAª | 0.054 (0.060) | NA ^a |
| RV116- 10DA | Region 4 2010 | BYI 02960 260 SL | TRID | Broadcast foliar | BBCH 88 BBCH | 12 (112) | 0.184 (0.206) 0.184 | NA ^a | 0.368 (0.412) | Dyne-Amic 0.25% v/v Dyne-Amic |
| RV114 10102A | AR Region 4 2010 | BYI 02960 200 SL | TRTD | Broadcast foliar | 89 BBCH 88 | 10 (95) | (0.206) 0.183 (0.205) | NAª | 0.366 (0.410) | 0.25% v/v Dyne-Amic 0.25% v/v |
| | | | | | BBCH 89 | 10 (95) | 0.183 (0.205) | 10 | | Dyne-Amic 0.25% v/v |



Table 6.3.2.13-4 (cont'd): Study Use Pattern for BYI 02960 200 SL and BYI 02960 480 FS on Cotton

| | • | | | | App | licatio | n | | | a,° |
|----------------------|---|----------------------------------|-----------|---------------------|---------------------------|-------------------------|------------------------------|--------------------------------|--------------------------|--------------------------------|
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Method | Timing Cowth Stage (BBCH) | Actual Spray Volume GPA | Rate Ib a: A (kg a.s./ha) | Retreatment Interval (dass) | Cake to a.s (ha) OD | CO KY |
| RV118- | , TX | BYI 02960 | TRTD | Broadcast | BBCH≈ | √18 ° | Ø.180 ^ | NA^a | @.361 @ | Dyne-Amic 0.25% v/v |
| 10DA | Region 6 2010 | 200 SL | | foliar o | (L) | 20 (184) | 0.180 (0.202) | | | 0.25% v/v Oyne-Amic 0.25% v/v |
| RV119- | , OK | BYI 02960 | | Broadeast foliar | BBCH | 30 | 0.204) | Aa | \$67 \$0.412 <u>)</u> | Dyne-Amic |
| 10DA | Region 6 2010 | 200 SL | ~ ~~ | fởhár | 1 €89 ^ | (283) | 0.204 | Y | 730 | ©0.25% v/v |
| | | | | | B₽€H 89-99 | 20 , (286). | 0.185 | | | Dyne-Amic 0.25% v/v |

a NA = Not applicable

TRTST = Treated plot receiving cotton sacras treated with BYI 02969 480 FS (no subsequent foliar treatment)

In the harvest trials after two foliar applications (TRTD plots), displicate composite samples of seed cotton were collected at pre-harvest intervals (PLFIs) ranging from 13 to 14 days with the exception of trial RV11 10HA, which received 16 in of rainfall the week prior to harvest, thus due to wet soil the cotton could not be picked intil a 19-day PHI. The intended pre-harvest interval is 14 days. In the four decline trials, displicate composite seed cotton samples were collected at 0, 6 to 7, 13 to 14, 19 to 21, and 27 to 28 days after the last foliar application, with the exception of trial RV119-10DA, where the 21-day sample condition to be collected due to wer soil. For the TRTST plots, harvest occurred at earliest commercial harvest (ECH 136 to 179 days following planting). Single composite samples of seed cotton were collected from the control plots on the same day the target 7-day samples were collected from the treated plots.

All seed cotton samples were girned to generate cotton seed samples (undelinted seed) for analysis.

The residues of BY102960, DFA, and FEAF were quantitated by HPLC-MS/MS using stable isotopically labelled internal standards. The individual analyte residues were summed to give a total BY102960 residue. Residue measurements below the analyte LOQ were summed into the total BY102960 residue value as the analyte LOQ value.

TRTD = Treated plot receiving two bliar applications of BY 2960, 200 SL



Findings

Concurrent recoveries of BYI 02960, DFA, and DFEAF were measured with each set of samples to o verify method performance. All recoveries were corrected for any interferences in corresponding controls. The overall mean of the recoveries for each matrix was within the acceptable range of 0 to 110%, and the standard deviation values were below 20% (cf. Table 6.3.2.13-5)

Summary of Recoveries of BYI 02960 from Cotton Table 6.3.2.13-5:

| | | | | Cs do | √ .° | . 7 2(8 |
|--------------------|-----------|-------------------------|-----------------------------------|---|-------------------|---------------------|
| Crop Matrix | Analyte | Spike Level (ppm) | Sample Size (n) | Recoveries (%) | Mean % | Standard Deviation |
| | | 0.010 | 10 | 85, 89, 94, 83, 83, 75, 78, 6 115, 117, 98, 6 | | |
| | BYI 02960 | 0.500 | P, | 76 × 76 × 76 | \$76% | ŇA |
| | | 1.00 | <u> </u> | r | 7300 | O NA |
| | | 2.00 | 2 | Ø8, 80 🗸 🔊 | \$9 % | |
| | | 0.056 | | \$\frac{1}{2}1, 70 \text{\$\frac{1}{2}6}, 77 \text{\$\frac{1}{2}5}, 69 \text{\$\frac{1}{2}9}, \\ 84 \text{\$\frac{1}{2}90}, 92 \text{\$\frac{1}{2}\$} | 79% 79% 79% | 9 |
| Undelinted Seed | DFA | 0.900 | 16 | \$\frac{7}{2} \tag{70} \tag{0} \tag{0} | ₩ × | NA |
| Seed | * | $\sqrt[\infty]{1.00}$ | P | 74,76 | °71%√ | NA |
| | * | 2000 | \$\tilde{\infty}2 \tilde{\infty} | 74\\ 76 \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ | 75% | NA |
| | | 0.010 | 100. | | \$91% | 11 |
| | DFCAF (| 0.500 | | | 75% | NA |
| | DFCAF O | , ØØ0 2 | 1 | 77 V 780, 88 V 79 | 77% | NA |
| | | √2.0 0 | | Z Z 80, W Z | 84% | NA |

Mean recovery = mathematical average of all recovery values

The freezer storage stability study indicates that BVI 02960 residues were stable in crops with high oil content during frozen storage for at least 18 months (558 days) prior to analysis as shown for soybean seeds and coffee beans as representative crops. The maximum storage period of frozen samples in this A summary of the storage conditions are shown in the Table 6.3.2.13-6 below.

Standard Eviation not calculated if \$3 fortingation

Bayer CropScience

Table 6.3.2.13-6: Summary of Storage Conditions for Cotton

| Residue Components | Matrix (RAC) | Maximum Average Storage Temperature (°C) a | Actual Storage Duration months (days) b | Interval of ° Demonstrated Storage Stability months days ° |
|-----------------------|------------------------|--|---|--|
| BYI 02960 | Cotton Undelinted Seed | < -21 | 15 (444) | 18 7 |
| DFEAF | Cotton Undelinted Seed | < -2017 | Ø15 Q(444) | \$\tag{558}\tag{558}\tag{558}\tag{558} |
| DFA | Cotton Undelinted Seed | -21 | 15 0 | (558) |

- The maximum average storage temperature is from the time of sample receipt at OLP Tem until sample extraction at BRP and is the maximum of all average freezer temperature of BRP and GLP Tech. While preparing for sample analysis, the samples were maintained in a laboratory freezer.
- The storage duration is the time from field sampling through the last sample extraction.
- 2012. Storage stability of BM 02960 difluoroacetic acid, and difluoroethyl-amino-furanone in plant matrices. Bayer Crop science Repor 18-month data (KIIA 6.1.1/01).

The total BYI 02960 residue data for cotton undelinted seed following foliar or coed treatment application(s) are shown in Table 6.3 2 13.57 application(s) are shown in Table 6.3.2.13

Total BY102960 Residue Data from Cotton offer Two Folian Applications of Table 6.3.2.13-7: BY I 02960 SL of a Seed Treatment Application of BY I 02960 480 FS

| Trial Identification | Location (Ci | Plot Name | Cop Variety Ch | | tal Rate | | Percent Dry Matte | BYI 02960 Residue (mg/kg) | DFA Residue (mg a.s. equiv./kg) | DFEAFResidue (mg a.s. equiv./kg) | Total BYI 02960 Residue (mg a.s. equiv./kg) ^b |
|----------------------|---------------------|-----------|---------------------|--------------------|------------------|----|-------------------|------------------------------|------------------------------------|-------------------------------------|---|
| RV108- 10HA | , CA, Region 10, | TROD | RHY755 WRF Acata | Underinted | 0.379 (0.425) | 14 | 96 | <0.010 0.018 | <0.050 <0.050 | <0.010 <0.010 | <0.070 0.078 |
| | 2010 | | | | | | | | | | Avg: 0.074 |
| RV109- 10HA | CA Megion | 1000 TD | DP353* | Undelinted Seed | 0.367 (0.412) | 14 | 89 | 0.102 0.164 | <0.050 <0.050 | <0.010 <0.010 | 0.16 0.22 |
| | CA Region (5), 2010 | | | 3000 | (0.112) | | | 0.101 | 0.020 | 0.010 | Avg: 0.19 |
| RV110-5 | I & Region | TRAD | Phytogen 485 WRF | Undelinted Seed | 0.369 (0.414) | 14 | 95 | 0.049 0.112 | <0.050 <0.050 | <0.010 <0.010 | 0.11 0.17 |
| RV110-5 10HA | La Region 4, | | 100 WICI | Beed | (0.414) | | | 0.112 | ·0.030 | -0.010 | Avg: 0.14 |

Table 6.3.2.13-7 (cont'd): Total BYI 02960 Residue Data from Cotton after Two Foliar Applications of BYI 02960 SL or a Seed Treatment Application of BYI 02960 480 FS

| | ı | 1 | | ı | 1 | | | | | | 0 |
|----------------------|---|-----------|---------------------|--------------------|--------------------------------------|---|-------------------|---------------------------------|------------------------------------|-------------------------------|--|
| Trial Identification | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | Total-gate Lb a.s./A (kg a.s./ha) | Sampling Interval | Perdon Dry Matter | BYI 02960 P. Residue (mg/kg) | DFAResidue (mg a.s. coniy./kg) | DFEAFAgsidue Color (mg. 1972) | Ogtal BY (12960 Residue (mSQs, equiv./kg) |
| RV111- 10HA | Region 2, 2010 | TRTD | PHY375 WRF | Undelined Seed | 0.367 | 79 6, 100 100 100 100 100 100 100 100 100 100 | 940 | | <00050 <0.050 0.050 0.050 | 60.010 20.019 | 0.087 0.099 Avg: 0:093 |
| RV112- 10HA | , TX, Region 8, 2010 | TRTD | FM 1740 B2F | Underinted Seed | \$0.368 (0.412) \$ |) 13 | | 9.962 9.632 | © 0.050 0.050 0.050 | <0.010 <0.010 | 0.22 0.69 b Avg: 0.46 c |
| RV113- 10HA | , CA, Region 10, 2010 | | Acala Daytona RF | | 0.369 (0.406) | 140 | | 0.016 0.019 | <0.050 <0.050 | <0.010 <0.010 | 0.076 0.079 Avg: 0.077 |
| Division | | TRTSor | Aeala Destona Ro | | Ø.042 Ø.047) | | | <0.010 <0.010 | <0.050 <0.050 | <0.010 <0.010 | <0.070 <0.070 Avg: <0.070 |
| RV114- 10HA | Region 8, | TRTD | 6M1740 B26 | Under inted | 0.366 | 13 | 9 5 | 0.053 0.024 | 0.093 <0.050 | <0.010 | 0.16 0.084 Avg: 0.12 |
| | | TRTST | FM1340 182F | | 0.055 | | 95 | <0.010 <0.010 | 0.057 0.076 | <0.010 <0.010 | 0.077 0.096 Avg: 0.087 |
| RV115- | TX, Region 8, 2010 | TRAD | FM/9180 B2 FQ | Undefinted | | 14 | 96 | 0.080 0.067 | <0.050 <0.050 | <0.010 <0.010 | 0.14 0.13 Avg: 0.13 |
| | 17, Region 8, 2010 | TATST | ✓ FM 9180 B2 F | Undelinted Seed | 0.054 (0.060) | 158 | 97 | <0.010 <0.010 | 0.388 0.293 | <0.010 <0.010 | 0.41 d 0.31 Avg: 0.36 e |

Table 6.3.2.13-7 (cont'd): Total BYI 02960 Residue Data from Cotton after Two Foliar Applications of BYI 02960 SL or a Seed Treatment Application of BYI 02960 480 FS

| <u> </u> | | | | 1 | | | | | | | 0 |
|-----------------------------|---|-----------|----------------------|---------------------|--------------------------------------|-------------------|--------------------|------------------------------|--------------------------------|-------------------------------------|--|
| -6-116 Trial Identification | Location (City, State, Region, and Year) | DIOT Name | Crop Variety S252 TS | Commodity | Total-Mate Lb a.s./A (kg a.s./ha) | Sampling Interval | Percent Dry Matter | BYI 02960 BY Residue (mg/kg) | DFAResidue (mg a.s. equiv./kg) | DFEAFRESIDUE CO (HEEA.S. equivalle) | © Total BY 02960 Residue © (mgas, equiv./kg) b 20 |
| | MS, Region 4, | IKID | BIIRF | Seed | (0.368) | O O | 920 | 0.444 | ~ (C))30 | 1 0.010 | ر ا |
| | MS, Region 4, 2010 | | | Undelined Seed | (0.412) | 14 | √ √01 | 0.232 | <0.080 | 50. 910 | 0.23 |
| | | | | | Ş | | | 0.192 | <0.030 | <0.010 | 0.25 Avg: |
| | | | | | | | | (/ N | |) | Avg: 0.24 |
| | | | | | ~ | 200 | 930 | 0.058 | <0.050 | <0.010 | 0.12 |
| | 4 | | | Underrited | | 27 ° | ₹ 9 | \$080 \$ | 0.050 | < 0.010 | 0.14 |
| RV117- 10DA | Region 7, | TRTD | PynaGro© 2400RF | Undefinited Seed | X0.41 0 | | e | 0.448 | <0.050 | <0.010 | 0.48 |
| | | | | | | | 94 *** | 0.064 | <0.050 | < 0.010 | 0.12 |
| | | | | | | 137 | 95 | 0.060 0.082 | <0.050 <0.050 | <0.010 <0.010 | 0.12 0.14 Avg: 0.13 |
| | | | | | 7 | 21 | 92 | 0.121 | < 0.050 | <0.010 | 0.18 |
| | | | | | | 28 | 94 | 0.020 | 0.060 | <0.010 | 0.090 |
| | | | | Ç. | | | | Cont | inued on | next pag | ţе |
| | | | J | | | | | | | | |

Table 6.3.2.13-7 (cont'd): Total BYI 02960 Residue Data from Cotton after Two Foliar Applications of BYI 02960 SL or a Seed Treatment Application of BYI 02960 480 FS

| h | ı | | | | | | | 1 | 1 | | 0 |
|----------------------|---|-----------|--------------|--------------------|--------------------------------------|-------------------|--------------------|---------------------------------|--|--|--|
| Trial Identification | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | Total Kate Lb a.s./A (kg a.s./ha) | Sampling Interval | Percent Dry Matter | BYI 02960 P. Residue (mg/kg) | DFAResidue (mg a.s. equiy./kg) | DFEARResidue Co. (Reg. 4.8. equiville) | Optal BY (\$2960 Residue (ms. equiv./kg) |
| RV118- | , TX, | TRTD | Stoneville | Undelinaed | 0.361 | 0 | 85% | 0.56 | <00050 | 60.010 | © 0.63 |
| 10DA | Region 6, 2010 | | 5458 | Undelifüed Seed | (0.404) | Or" | | | | | , |
| | 2010 | | | | | - 0 | / | 1'0' m | | 4 | 600- |
| | | | 4. n | | Į, | Q, | 89 [©] | 0.814 | <0.050 | 49. 010 | \$0.87 |
| | | | | | | 14 (| Ø88 | ₹ 9 .257 <i>6</i> | \$\\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | <0.00TO | 0.32 |
| | | | Q. | | | 14 | 88 | 0.40 | <0.050 <0.050 | \$0.010 | 0.32 |
| | | | /// | D | | | | 0.257 0.40 | <0.050 <0.050 <0.050 | | Avg: 0.39 |
| | | | | | | ے ک | 8 | 8 | | | 0.39 |
| | | 2 | | | | 18 | 940 | 0.494 | <0.950 \$\tilde{\phi}\$ | < 0.010 | 0.55 |
| | | | | | 0 | , , | 940 | | | | |
| | | `~\`` | | | | 28 | 93 | ×0.338 | <0.050 | < 0.010 | 0.40 |
| | Ş | | | | | O | 0 | , ~ . | | | |
| RV119- | ΣK, | TAYTD | %¥M90€3 | Undelinted | 0.36% | 0 | Ç,92 | Ø ₂ 362 | < 0.050 | < 0.010 | 0.42 |
| 10DA | Region 6, | N 💚 | B2F & | Seed | 0.367 | | | | | | |
| | Region 6, | | <i>V</i> | | | | ×91 | 0.219 | <0.050 | < 0.010 | 0.28 |
| | | L , | | | | |) () | 0.219 | <0.030 | <0.010 | 0.28 |
| | , 0 | | | , | | | | | | | |
| , , | | | | | | <u>3</u> 73 | 92 | 0.166 0.236 | <0.050 <0.050 | <0.010 <0.010 | 0.23 0.30 |
| | | 4 | | | | | | 0.230 | ~0.030 | ~0.010 | Avg: |
| | | | | | | | | | | | 0.26 |
| | | 80 | | | | 28 | 89 | 0.182 | <0.050 | < 0.010 | 0.24 |
| | | | | | | | | 0.102 | 0.020 | 0.010 | J.2. |
| | L | <u> </u> | r 🔍 , í | <u>~</u> ~ | | l | | | | | |

- a Total BYI 02960 residue is the sum of BYI 02960, DFA, and DFEAF residue in parent equivalents. Residue measurements below the analyte LOQ were summed into the total BYI 02960 residue value as the analyte LOQ value. These totals represent the upper finit of what the residue levels might be.
- b Maximum residue found in cotton undunted seed from plants receiving foliar spray applications of BYI 02960 200 SL (TRTD) and harvested at a H-day PHI.
- c Highest Verage beld trial HAFT Vesidue found in found in cotton undelinted seed from plants receiving foliar spray applications CBYI 02960 200 SL (TRTD) and harvested at a 14-day PHI.
- d Maximum pridue found in corton undelinted seed from plants receiving a seed treatment application of BYI 02960 (\$200 FS (\$200 FS)) and harvested at a 14-day PHI.
- e HAFT sidue found in cotton undelinted seed from plants receiving a seed treatment application of BYI 02960 480 8 (TRTST)

TRTD = Treated plot receiving two foliar applications of BYI 02960 200 SL

TRTST = Treated plot receiving cotton seeds treated with BYI 02960 480 FS (no subsequent foliar treatment)



Conclusion

Twelve field trials were conducted to measure the magnitude of total BYI 02960 residue in/on coron following two foliar spray applications. In parallel, four seed treatment trials were conducted with BYI 02960 480 FS. The total BYI 02960 residue data for cotton undelinted seed following foliar or seed treatment application(s) are shown in Table 6.3.2.13-8.

Summary of Residue Data for Total 1971 02960 from Cotton Table 6.3.2.13-8:

| Commodity | Plot Name ¹ | Total Application Rate lb a.s/A (kg a.s./ha) | PHI (days) Min at Max |
|------------------------------|------------------------|---|---|
| Cotton Undelinted Seed | TRTD | $ 0.361 - 0.379 \\ (0.404 - 0.425) $ | $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ |
| Cotton Undelinted Seed | TRTST | 0.042 - 0.055 (0.047 - 0.000) | |

- 1 TRTD = Treated plot receiving foliar applications of BVI 0296 200 SV TRTST = Treated plot receiving cotton seeds treated with BYI 02960 480 VS
- 2 HAFT = Highest Average Field Trial
- calculated on the basis of residue values at the PHL
- Sampling day showing bighest sidue &
- Not applicable, since do decline trials were conducted after seed reetment

Total BYI 02960 residues in the cotton underinted seed from plots receiving treated seeds were similar to plots receiving forbar applications. The overall maximum residue was detected in a cotton undelinted seed sample collected after foliar treatment and amount of to 0.69 mg/kg at the respective PHI of D days. The four decome trials conducted ofter foliar application showed that the total BYI 02960 residue in cotton seed experienced a general decline over the course of the study. The The residual data provided for cotton seeds are suitable for regulatory purposes. residues did not adways peak at the PHV of 14 days, but not later than 21 days. The overall maximum



IIA 6.3.2.14 Cereals - barley

Residue data from NORTH AMERICA

BYI 02960 is to be registered in USA and Canada for use as a foliar treatment in on cereal graph, except rice (crop group 15). Representative crops tested were <u>barley</u>, field and sweet corn, sorghum and wheat. The use pattern for barley in North America is summarized in Table 6.3.2.14

A total of twenty field trials were conducted in barley. The studies are described below.

Table 6.3.2.14-1a: Target Use Pattern for the Application of BYIQ2960 on Barley (to gain Grains)

| | | | | Target | Ø Rate/Appli | cation | | Z (O' | | | Sp Vol | ray ume |
|-------------|---------------------|--------|------|----------------------|--------------|--------|------------------|----------------|--------|----------------|-----------|-------------|
| | | | | nulated ict (FP)₄ | Actine Su | ıb&anc | e (As.) | Target App. | Target | Adjuvan | t & | |
| Application | Test | No. of | | | Name of ~ | Jlb [| kg 🧷 | Intercal | PHI | /Additive | | |
| Type | Substance | Apps | mL/A | fl oz/A | "̇̀×⁄a.s. "® | a.s./A | a.s./ma | (Days) | (Days) | % (%) & | GPA | LPHA |
| | BYI 02960 200 SL | | | | BYI 92960 | 0.183 | _0 2 05 | \$ 7 \hat{5} | 21 | 0.25 | 10-50 | 93-467 |

In parallel, residue trials were conducted with BYI 02960 480 FS following a second treatment application. The seed treatment rates for the cereal grain crops are presented below.

Table 6.3.2.14-1b: Target Use Pattern for the Application of BYI 02960 on Barley (to gain Grains)

| | Q | | | Target Rate Application | | | | | | | _ | ray ume |
|----------------|---------------------|-------------|-------------------|-------------------------|-----------|-------------------|----------|-----------------|------------------|-----------------------|-----------------|-----------------|
| | | | Produ | ulated et (FP) | Active Su |) ibstance | e (a.C) | Target | | | | |
| Application | Test | O No se | ԾmL/ ։ Հ100 kg | oz/100 | Name of | lba.s./ №00 lb | ki a.s./ | App. | Target | Adjuvant /Additive | | |
| Type 🗞 | gubstance | TAKES | seed | lb seed | Tane or | see | see@ | (Days) | (Days) | (%) | GPA | LPHA |
| Seed treatment | BYI 02960 480 FS | © 0 1 °, | \$\frac{1}{2}1 | 8.0 | BYI 02960 | 0.250 | · 0250 | NA ³ | ECH ⁴ | NA ³ | NA ³ | NA ³ |

¹ NA = Not applicable.

² ECH = Earliest commercial harves

| Report: | KIIA 6.3.2.74/01; 2012 |
|-------------|---|
| Title: | BX 02960 00 SL and BX 02960 480 FS - Magnitude of the Residue in/on Barley |
| Report No & | RARVY 01, dans April 19, 2012 |
| Document No | M-43/905-01-2 |
| Guidelines: | US: EPA Residue Chemistry Test Guidelines OPPTS 860.1500, Crop Field Trials |
| | Canada: AMRA OACO 7.4.1, Supervised Residue Trial Study |
| | PMRA DACO 7.4.2, Residue Decline |
| | OECO: Guidelines for the Testing of Chemicals, 509, Crop Field Trial, |
| | Apopted Sept. 7, 2009. |
| GLP & | Ves v |

Twenty Feld trials were conducted to measure the magnitude of BYI 02960 residues in/on barley grain, barley hay and barley straw following two broadcast foliar spray applications of BYI 02960 200 SL, or by planting barley seeds treated with BYI 02960 480 FS. Since barley hay and straw (as

feed items) are not imported into Europe, this dossier will focus on barley grain, only. Complete information on the study, including the data on barley hay and straw, has been submitted in the Global Joint Review Submission in October 2012.

| BYI 02960 200 SL is a soluble concentr | rate formulation contain | ning 200 g BYI 💯 60/ | L. BYL © 2960 |
|--|--------------------------|---|----------------------|
| 480 FS is a flowable concentrate contain trials conform to the guidance given by | ning 480 g BYI 02960 |)/L. The number and le | agation of first |
| trials conform to the guidance given by | the EPA (Table 6.3.2.1 | 4-2). | |
| | Ö | | |
| Table 6.3.2.14-2: Trial Numbers and | Geographical Location | s for BXQ 02960 in/on | Barley & S |
| NAFTA Growing Region | Submitted ^a | Requested | Barley 4 |
| 1 | | | |
| 1A | | | |
| 2 | | Q 4 | |
| 3 | | | |
| 4 | | | |
| 5 | 3 | | |
| 5A | | | © O |
| 5B 🖏 📞 | | | |
| 6 | | | |
| 7 5 5 | | \$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | |
| | | | |
| 58 7 4 4 | | | |
| | | | |
| 10 2 2 6 | | 1 | |
| | | 2 | |
| | | 4) | |
| 13 \$ \$ 5 | | | |
| 13 0 5 | | 8 | |
| Total O | 20 | 20 | |

Four of the twenty trials were decline trials (one in Region 5, one in Region 7, and two in Region 14). Four decline trials were performed to meet EQ requirements.

Material and Methods

Individual foliar application rates ranged from 0.174 to 0.228 lb BYI 02960/A/application (0.195 to 0.256 kg BYI 0.2960/ha/application). Seasonal total application rates ranged from 0.355 to 0.412 lb BYI 02960/4, 0.398 to 0.462 kg BYI 02960/ha). Foliar applications to plots for the collection of strew and grain were made at BBCH 58 to 87 (BBCH 58; 80% florecscence emerged, BBCH 87; hard dough): The interval between the foliar applications was 5 to 8 days. All foliar applications were made using ground-based equipment. The adjuvants Dyne-Amic, Agral 90 or Ag Surf were used in all of the applications at a rate of 0.25% (v/v).



Soil loading/application rates for plots into which treated barley seed was planted (TRTST plots) ranged from 0.111 to 0.180 lb BYI 02960/A (0.124 to 0.202 kg BYI 02960/ha), depending upon planting density. Barley seed was treated by Bayer CropScience, RTP, North Carolina at a nominal rate of 0.250 kg BYI 02960/100 kg seed.

Trial Site conditions, including soil characteristics are summarized in Table 6.3.2.14-3. Study use patterns are summarized in Table 6.3.2.14-4.

Table 6.3.2.14-3: Trial Site Conditions for BYI 02960 on Barley

| Trial | Soil Characteristics Detro | | | | | | | | | |
|----------------|----------------------------|--------------------|--------------------|-----------------|--------------|------------------------------|------------------------|--|--|--|
| Identification | Country/State, Year) | Type | ØM ▷ (| pH S | CEC | √ Total Raintal I (in) | Temp. Bange (°F) | | | |
| RV001-10HA | , PA 011 & | Koam 🔊 | 2,40 | 5 2 | Ø .2 | \$9.25 O | 61-95 | | | |
| RV002-10HA | , NE 2011 0 | Silt Loann | 2 .2 | 7.3 | 10.5 | 24,92 | 46-84 | | | |
| RV003-10DA | IĹ, 2011© | 🗘 Silt 🕼 am 💍 | 2.5 | 7.00 | 1303 | 24.50 | 49-93 | | | |
| RV004-10HA | (2011) | Sandy Loana | 200 | <i>6</i> 7.6 € | 94.1 | 6.59 | 58-80 | | | |
| RV005-10HA | , ¥£, 201, Ç | Silt Lown | 2.7 ~ | $\sqrt[3]{6.8}$ | 17.0g | 20.78 | 41-89 | | | |
| RV006-10DA | ND, 2091 | I bam 💸 | § 3.9 [©] | I. | 27 .2 | 4.34 | 57-88 | | | |
| RV007-10HA | , ND 2011 | Loam | 3.8 | | √30.8 | 3.52 | 55-87 | | | |
| RV008-10HA | , 80, 200 | Clay Fram | y 3.6 | | 19.9 | 6.11 | 57-81 | | | |
| RV009-10HA | (jb, 2011) | Þám Š | 2.00 | 3 51 | 21.8 | 1.09 | 49-88 | | | |
| RV010-10H | , CA, 2011 & | Sandy Loam | 3 .54 | ر آگا 5.7 | 7.3 | 4.21 | 43-76 | | | |
| RV011-100JA | , WA, 2011 | LoamoSand | 1.1 | 6.9 | 10.2 | 1.22 | 49-86 | | | |
| RV01200HA | ID, 2,671 | SAT Loam | 137 | 7.2 | 11.7 | 4.48 | 35-93 | | | |
| RV013-10DA | Alberta, 2011 | Silty Clay Logm | Ŝ11.3 | 5.6 | 45 | 6.89 | 37-73 | | | |
| RV014-10DA | Saskatchewan, 2014 | \$ oam \$ | 4.3 | 6.8 | 17 | 4.80 | 66-100 | | | |
| RV015-10HA | Saskatchewan, | Logn | 8 | 7.5 | 24.8 | 2.43 | 52-71 | | | |
| RV016F0HA | , Manitoba, 2011 | Noam | 4.4 | 7.5 | 25.8 | 5.51 | 53-76 | | | |
| RY@17-10HA | , Marintoba, 2011 | Loam | 5.3 | 7.5 | 24.4 | 8.78 | 53-76 | | | |
| RV018-10HA | , Manitoba, 2011 | Sand Loam | 2.32 | 5.5 | NAc | 5.91 | 52-77 | | | |
| RV019-10H | Alberta, | Loam | 3.4 | 6.4 | 21 | 6.89 | 37-73 | | | |
| RV020-40HA | Saskatchewan, | Loam | NAc | 7.1 | NAc | 5.18 | 41-72 | | | |

Appreviations used OM percent organic matter; CEC = cation exchange capacity.

Pata is to the interval of the month of first application through the month of last sampling. Meteorological data were obtain from nearby government weather stations.

NA = Not Available.



Table 6.3.2.14-4: Study Use Pattern for BYI 02960 200 SL and BYI 02960 480 FS on Barley

| | | , | | | | | 2700 400 | | | |
|----------------------|---|---|-----------|---------------------|-------------------------------|-------------------------|----------------------------|----------------------|---------------|--------------------------------------|
| | | | | ı | App | o s | | | | |
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Method | Timing/Growth Stage | Actual Spray Volume GPA | Rate lb a.s./A (kggs./ha) | Retreatment Interval | ς Θ | Taink Mix Adjunants |
| RV001- | , | BYI 02960 | TRTSG | Broadcast | BBCH | 19 | Ø.185 4 | NAª | 0.370 | Dyne-Amic, |
| 10HA | PA Region 1 2010 | SL 200 | | Broadcast foliar | BBCH Ø7 Ø BBCH 85 | 0,75) | (0.207) | ** *** | 90.414) 5 | 0.25% v/v Done-Amic, 0.25% v/v |
| RV002- | , NE | BYI 02960 | TRTS | Broodcast | ®BCH 71.° | 15 | 0.186 | NA | 0.3760 | Dyne-Amic, |
| 10HA | Region 5 2010 | SL 2000 | | foliar | | (137) | (0.208) | | (0.4,14) | 0.25% v/v |
| | 2010 | Z W | | | BBCH 83 | 0 014 (134) | 0.184 | 5 (| | Dyne-Amic, 0.25% v/v |
| RV002- | , NE % | ØYI 02960 | TROTST : | Seedy | BBCH | NA | 20×110 | MA ^a | 0.110 | NA |
| 10HA | Region 5 | SI 700 | | Treathen | 0 00 | | (0.1236) | <i>y</i> 11 2 | (0.123) | 1,12 |
| RV003- | AL (| BYI 02960 | TR TSG~ | Broadcast | BBCH | 27 | 2 /186 | NAª | | Dyne-Amic |
| 10DA | Region 5 | SL-2000 (| | foliar | BBCH | 26) 4(248) O | 0.209) 0.186 (0.208) | 7 | (0.417) | 0.25% v/v Dyne-Amic 0.25% v/v |
| RV004- 10HA | | BYM 02960 SL 2007 | TRASG | Broadcast foliar | BBCH | 12 (109) | 0.180 (0.202) | NAª | 0.364 (0.408) | Dyne-Amic, 0.25% v/v |
| 1011/4 | Region 5 | | | / Norman | 83 | | , | | (0.700) | |
| | Region 5 | | | | В ВСН 85 | 12 (114) | 0.184 (0.206) | 7 | | Dyne-Amic, 0.25% v/v |
| RV005- | , NO | BYJ 2960 | TRTS6 | Broadcast | BBCH | 20 | 0.185 | NAª | | Dyne-Amic, |
| 10HA | Region 7 | SL 200 | TRTS C | , Aoliar | 75 | (190) | (0.207) | | (0.413) | 0.25% (v/v) |
| TOTA S | (7 | | Q (| Ş" | ВВСН | 20 | 0.183 | 7 | | Dyne-Amic, |
| | | | | | 85 | (190) | (0.205) | | | 0.25% (v/v) |
| RV005- | | 102960 | TRØST | Seed | ВВСН | NAª | 0.180 | NAª | 0.180 | NAa |
| 10HA | NE Region 7 | \$\frac{1}{2}\$ 02960 480\$\frac{1}{2}\$ | TRØST | Treatmen t | 00 | 1,71 | (0.202) | 1111 | (0.202) | 1,11 |
| | | | | | | | | | | |

Table 6.3.2.14-4 (cont'd): Study Use Pattern for BYI 02960 200 SL and BYI 02960 480 FS on Barley

| Tuble 0. | 3.2.14 -4 (cont u). | Diddy Ost | | 01 6 1 1 0 2 | 200 | on and | D11 0270 | 70 10 | 015011 | Buricy |
|----------------------|---|-------------------------------|-----------|----------------------|---------------------|-------------------------------|--|----------------------|---------------------|--------------------------|
| | | | | Application | | | | | | |
| | , NAFTA | rmulation) | | | 9 | e GPA | To the second se | _ | (kg a.s./ha) | |
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | po O | Timing/Growth Stage | Actus Spray Volume GPA | Rate lb a.s./A (kggs./ha) | Retreatment Interval | Cotal Rale B a.s./A | OZE PA |
| Trial | Loca Regid | End- | Plot 1 | Week | • | Actus (C/ha) | | Retres (days) | , Ægtal | Tank |
| RV006- 10DA | , ND Region 7 | BYI 02960 SL 200 | TRTSG | Broadcast foklar | BBCH O7 | 2 0 0 787) 1 | 0.182 0.204) | NAª | 0.364 (0.408) | Dyne-Amic, 0.25% v/v |
| | 2010 | | | | BBCD | 200 | 0.982 (0.204) | 45 | | Dene-Amic, 50.25% v/v |
| RV007- | , ND | BYI 02960 | TRT®G | Broadcast | BBCH | 20% | 0.182 | N.O | 0.368 | Dyne-Amic, |
| 10HA | Region 7 2010 | SL 206♥′ | | ofoliar | 83 | (18D) | | | (0:4/12) | 0.25% v/v |
| | | | | | BB CH | © 20 (190) | 0.186 | | | Dyne-Amic, 0.25% v/v |
| RV008- 10HA | Region 7 📞 | BYI 02960 SK 200 | TŘTSG | Broade as t forar | BBCH | 20 (189) <u>(</u> | (0.208) | NA a | 0.372 (0.417) | Dyne-Amic 0.25% (v/v) |
| | 2010 J | | | | BBC# | 20 (\$\sqrt{1}) | 0.186 | 5 | | Dyne-Amic 0.25% (v/v) |
| RV009- 10HA | Region P | B © 0296© \$L 209 | TRÝSG | Broadcast Foliar | r 83 € | 20 ₀ (188) | 0.185 (0.207) | NAª | 0.372 (0.417) | Dyne-Amic, 0.25% v/v |
| Å. | | | | | 87 87 | 21 (192) | 0.187 (0.210) | 7 | | Dyne-Amic, 0.25% v/v |
| RV010- 10HA | Region 10 \$ | BYI 0.960 Si 200 | PRTŞG | Broadcast forvar | B KC H 85 | 31 (289) | 0.182 (0.204) | NAª | 0.367 (0.411) | Dyne-Amic, 0.25% v/v |
| | ~Q2011 () .4 | | | | ВВСН | 32 | 0.184 | 7 | | Dyne-Amic, |
| DAYO11 | | N N N N N N N N N N | | | 87 | (300) | (0.207) | 374 | 0.265 | 0.25% v/v |
| 10HA | Region 1 | BYI 02960 SL 2000 | TRTSG | Proadcas Foliar | BBCH 85 | 30 (280) | 0.183 (0.205) | NAª | 0.367 (0.412) | Dyne-Amic, 0.25% v/v |
| | | | | Ø | BBCH 87 | 30 (282) | 0.184 (0.207) | 7 | | Dyne-Amic, 0.25% v/v |
| | Region 1) 2010 | | | | | | Cont | inuec | d on next | page |
| K, | | 8 | | | | | | | | |



Table 6.3.2.14-4: Study Use Pattern for BYI 02960 200 SL and BYI 02960 480 FS on Barley

| | | | Application | | | | | | | | |
|----------------------|---|--------------------------------------|----------------|------------------------|------------------------------|------------------------------|--------------------------------------|--------------------------------|--------------------------------|--|--|
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Method | Fiming/Growth Stage BBCH) | Actual Spray Volume GPA | Rate lb a.s./A (kggs.s./ha) | Retreatinent Interval (dos) | Gotal Kale b a.s./Akg a.s./ha) | Tankedix Adjunants & Phy | |
| RV012- 10HA | Region 11 2010 | BYI 02960 SL 200 | | t foliar | BBCH D3 BBCH | 25 (233) (25 (238) | | NA ^a | 0.369 (0.414) | Dyne-Amic, 0.25% v/v Dyne-Amic, 0.25% v/v | |
| RV012- 10HA | Region 11 2010 | BYI 02960 480 SC | TRT S T | Seed Oreatment t | 4 | NAO Q | D' | | (0.¥95) | NA | |
| RV013- 10DA | Alberta Region 14 | BYT02960 \$\times \text{SL 200}\$ | TRISG | Broadcas | 73 \ BBCH \$ 85 | (99) L | 0.184 (0.206) 0.183 (0.206) | NA ^a | 0.367 (0.412) | Agral 90, 0.25% v/v Agral 90, 0.25% v/v | |
| RV014- 10DA | Saskachewar Region 17 | BYI 62960 SH. 200 C | | Broadeas t Koliar | BBCH | (22 (207) (192) | 0.188 (0.211) 0.174 (0.195) | NA ^a | 0.362 (0.406) | Ag Surf, 0.25% v/v Ag Surf, 0.25% v/v | |
| RV015- 10HA | Saskatchewan Region 14 | | | Broadcas Ot folia | BBCAS SS OBCH 64 | 21 (198) 21 (197) | 0.180 (0.201) 0.179 (0.201) | NA ^a | 0.359 (0.402) | Ag Surf, 0.25% v/v Ag Surf, 0.25% v/v | |
| RV016-10HA | Region 140 2010 | BY402960 SL 200 | | Broadcas Doliar | BBCH 87 | 17 (158) 17 (158) | 0.182 (0.204) 0.182 (0.204) | NA ^a | 0.364 (0.407) | Ag Surf, 0.25% v/v Ag Surf, 0.25% v/v | |
| RV017- 10HA | Manitob Region | YI 02960 SL 200 | TETSG | Broadcast foliar | BBCH 77 BBCH 83 | 17 (159) 17 (162) | 0.182 (0.204) 0.186 (0.209) | NA ^a | 0.369 (0.413) | Ag Surf, 0.25% v/v Ag Surf, 0.25% v/v | |



Table 6.3.2.14-4: Study Use Pattern for BYI 02960 200 SL and BYI 02960 480 FS on Barley

| | | | | | Appl | lication | | | | |
|----------------------|---|-------------------------------|-----------|----------------------|-----------------------------|------------------------------|--|--|------------------|--|
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Method | Timing/Growth Stage | Actual Spray Volume GPA | Rate lb a.s./A (kgas.s./ha) | Retreatment Interva | ~ ~ | Tank Mix Adjugants & Land |
| RV018- 10HA | Manitoba Region 14 2010 | BYI 02960 SL 200 | TRTSG | Broadcast foliar | BECH C65 BBCH | 21 (198) 21 (53) | 0.181 0.203 0.077 0.198) | NA ^a | 0.358 40.401 | Agsurf, |
| RV019- 10HA | Alberta Region 14 2010 | BYI 02960 SL 200 | | Broadcas t foliar | BBCH 77.5 BBCH 885 | 11 ~ (100) 540 (98) | 0.18\$ (0.204) 07.178 (0.199) | NAU NAU NAU NAU NAU NAU NAU NAU NAU NAU | | Agral 90, 0.25% v/v Agral 90, 0.25% v/v |
| RV020- 10HA | Saskatchewan Region 14 20 10 | BYI 02960 Y SL 200 | TROSG | Froadcas t folia | BBCH | (201) | 40.207 0.f87 | A ^a 7 | 0.372 (0.417) | Ag Surf, 0.25% v/v Ag Surf, |
| | | | | | BBCH | (204) V | (210) | | | 0.25% v/v |

a NA = Not Available.

In the harvest trials after foliar applications, duplicate composite samples of barley grain were harvested at PHIs ranging from 16 to 22 days (intended PHI = 21 days). In the four decline trials, duplicate composite barley grain samples were collected from the treated plots at 10, 15, 21, 28 and 35 days after the last application. Single composite samples of barley grain were collected from the control plots on the same day the target 21 day PHI samples were collected from the treated plots.

Duplicate samples of required commodities were collected from plots into which BYI 02960 treated seed was planted.

The residue(s) WBYI 02960 FA and DFEAF were quantitated by HPLC-MS/MS using stable isotopically labelled internal standards. The individual analyte residues were summed to give a total BYI 02960 residue. Residue measurements below the analyte LOQ were summed into the total BYI 02960 residue value as the analyte LOQ value.



Findings

Concurrent recoveries of BYI 02960, DFA, and DFEAF were measured with each set of samples to verify method performance. All recoveries were corrected for any interferences in corresponding controls. The overall mean of the recoveries for each matrix was within the acceptable range of 0 to 110%, and the standard deviation values were $\leq 20\%$ (Table 6.3.2.14-5).

Table 6.3.2.14-5: Summary of Recoveries of BYI 02960 from Barley

| Crop Matrix | Analyte | Spike Level (ppm) | Sample Size (n) | Recoveries % | Mean Recovery | Sid Dev ((%) |
|----------------|-----------|-------------------------|-----------------------------|---|---------------|--|
| | DVI 02000 | 0.01 | 9 🐇 | \$11, 82, 129, 107, 87, \$16, 112, \$6, 100, | 104 | \$\text{\$\exitt{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\exitt{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\exitt{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\exitt{\$\text{\$\}}}}\$}}}}}}}}}}}}}}}}}}}}}}}}}}}}}}} |
| | BYI 02960 | 0.5 | 5 ° | 105,96,89,85,850 | F 22 A | 8.5 。 |
| | | 50 | 3 | 79, 81, 75 | 078 | 28 |
| Barley | DFA | 0.05 | Q 9 3 | | | 5.7 |
| Grain | | 0.5 | 46 | 79, 80, 70, 75 | \$76 \$ | 4.4 |
| | | 50 | \$3 \$\langle \tilde{\pi}\$ | 75 , 79, 76 | 76 | 3.2 |
| | DFEAF | 25 1 | 95 | 100, 97, 4, 13, 99, 31, 100, 116, 98, 82 | 9 9 | 12 |
| | 9 | © 0.5 O | 64 | 92, 93, 87, 87 | ॐ 90 | 3.2 |

a Mean Recovery = mathematical verage, Pall recoveries

The freezer storage stability study indicates that BYI 2960 residues were stable in crops with high starch content during frozen storage for at least 18 months prior to analysis as shown for wheat grain as representative crops. The maximum storage period of rozer samples in this study for BYI 02960 was 401 days. A summary of the storage conditions are shown in Table 6.3.2.14-6.

Table 6.3.2.14-6: Summary of Storage Conditions for Barles

| Residue Component(s) (RAV) | Maximum Average Storage Temporature (| Actual Storage Duration months (days) ^b | Interval of Demonstrated Storage Stability months (days) ^c |
|----------------------------|---------------------------------------|--|--|
| BYI 02960 Barley Grain | < -16 | 13 (401) | 18 (557) |
| DFEAF © Baffley Gran | <-16 | 13 (401) | 18 (557) |
| DFA Barley Grain | < -16 | 13 (401) | 18 (557) |

The maximum average storage remperature is from the time of sample receipt at BRP until sample extraction and is the maximum of all average freezer temperatures at BRP and Pyxant. While preparing for sample analysis, the samples were maintained in a laboratory freezer.

b The storage duration is the time from field sampling through the last sample extraction.

and A. 2012. Storage stability of BYI 02960, difluoroacetic acid, and difluoroethyl-amino-furanone in plant matrices. Bayer CropScience Report No. RARVP046, amended version including 18-month data (KIIA 6.1.1/01).



The total BYI 02960 residue data for barley following seed treatment application with BYI 02960 480 FS or two foliar applications of BYI 02960 200 SL are shown in Table 6.3.2.14-7.

Total BYI 02960 Residue Data from Barley after a Seed Treatment Application with BYI 02960 480 FS or Two Foliar Applications of BYI 02960 200 SL Table 6.3.2.14-7:

| | *** | im D110 | 2900 4 80 F | 5 01 1 W | o i onai | тррп | Cutions | ~ | 9 7 | | <u></u> |
|-----------------------------------|---|-----------|------------------------|-----------|-------------------------------------|--------------------|--------------------------|-----------------------------|------------------|------------------|---------------------------------|
| Trial Identification ^a | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | Total Rate & Lb a.s./A (kg a.s./An) | % Ben Matter | Sampling Paterval (days) | BM 02960 Residue (mg/kg) | DROResidue | DFK KEResidue | Total AVI 02960 Residue |
| RV001- 10HA | , PA Region 1 2010 | TRTSG | AC Minoa | Grain | 0.370 (0.344) | 89 ° | 16.4 | 0.854 0:773 | 0.342 0.397 | 0.257 0.160 | ©33 1.33 Avg: 1.33 |
| RV002- 10HA | NE Region 5 2010 | TRTSG | & Obust | S L | 0370 (6.414) | | 190 | | 130 0.19 0 | 0.0345 0.0341 | 1.21 1.28 Avg: 1.24 |
| RV002- 10HA | NE Region 5 2010 | TRY ST | | Gram | 0:111 (0:124) | \$2 5 2 2 | | <0.010 <0.010 / | 5472 50.524 | <0.010 <0.010 | 0.492 0.544 Avg: 0.518 |
| RV003- 10DA | Region 5 | TRTSG(| r « | Grain | (0.417) | 990 90 0 | | 3.72 4.62 | 0.137 0.127 | 0.0959 0.102 | 3.96 4.85 Avg: 4.40 |
| | | | | | 0.37 2 (0.417) | 83 | D″15 | 2.19 1.83 | 0.0747 0.0628 | 0.0277 0.0293 | 2.29 1.92 Avg: 2.11 |
| | | | | | 0.372 (0.417) | 85 | 20 | 1.33 1.05 | 0.0837 0.0783 | 0.0249 0.0250 | 1.44 1.16 Avg: 1.30 |
| Ÿ | | | | | 0.372 (0.417) | 90 | 28 | 0.945 0.990 | 0.0569 0.0709 | 0.0107 0.0165 | 1.01 1.08 Avg: 1.04 |
| | | | | | 0.372 (0.417) | 85 | 35 | 0.568 0.694 | 0.0669 0.0802 | 0.0156 0.0161 | 0.651 0.790 Avg: 0.721 |

Tier 2, IIA, Sec. 4, Point 6: Flupyradifurone (BYI 02960)

Table 6.3.2.14-7 (cont'd): Total BYI 02960 Residue Data from Barley after a Seed Treatment Application with BYI 02960 480 FS or Two Foliar Applications of BYI 02960 200 SI

| | | BYI | 02960 200 | SL | | | | | | | L L |
|--|---|-----------|--------------|-----------|--------------------------------------|--------------|-----------------------------|-------------------------------|-----------------------------------|--------------------|---|
| Trial Identification ^a | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | Total Rate Lb a.s./A (Ag a.s./ha) | % Dry Matter | Sachhing Interval (days) | BY 02960 C Residue (mg/kg) | DFAResidue Ong a.s. equiv./kg) | DFEARRSidue | Total BKL 02960 Residue (mga.s. equis/Ag) |
| RV004- 10HA | Region 5 2010 | TRTSG | Dignity | Grain | 0,364 | | | 2,18 336 | 0.0824 \$0893 | | 2.27 2.49° Axg: 238 ^d |
| RV005- 10HA | NE Region 7 2010 | TRTSG | | di in | 02368 10.413) | Ž | | | | *0.0232 *0.0254 | 0.716 0.734 Avg: 0.725 |
| RV005- 10HA | NE Region 7 2010 | TRTS | Robert , | Grain | ©.180 (0.292) | 81 | | 0.010 | 0.692 0.690 | <0.010 <0.010 | 0.712 ^e 0.710 Avg: 0.711 ^f |
| RV006- 10DA | ND Region 7 | TRTSG | Rimneacle | Grain | 0.364 | 90 | | 0.504/ 0.505 | 0.426 0.409 | 0.136 0.145 | 1.07 1.06 Avg: 1.06 |
| Ĺ | | | | | 0364 (0.408) | 83 | h" | 0.519 0.590 | 0.456 0.440 | 0.105 0.133 | 1.08 1.16 Avg: 1.12 |
| | A A | | | | 0.364 | 88 | 21 | 0.340 0.354 | 0.297 0.315 | 0.129 0.144 | 0.767 0.813 Avg: 0.790 |
| 4 | Region 7 | | | | © 0.364 (0.408) | 86 | 29 | 0.437 0.490 | 0.313 0.329 | 0.149 0.134 | 0.899 0.953 Avg: 0.926 |
| \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ | | | | | 0.364 (0.408) | 73 | 35 | 0.276 0.221 | 0.215 0.197 | 0.0830 0.0667 | 0.574 0.485 Avg: 0.529 |

Table 6.3.2.14-7 (cont'd): Total BYI 02960 Residue Data from Barley after a Seed Treatment Application with BYI 02960 480 FS or Two Foliar Applications of BYI 02960 200 SL

| | | ВИ | 02960 200 | SL | | | | | | | |
|-----------------------------------|---|-----------|-----------------|-----------|--------------------------------------|--------------|-------------------|-------------------------------|------------------------------------|------------------|--|
| Trial Identification ^a | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | Total Rate Lb a.s./A (Ag a.s./ha) | % Dry Matter | Sampling Interval | BY 02960 C Residue (mg/kg) | DFA Residue Ong a.s. Oquiv./kg) | DFEATORSidue | Total BKL 92960 Residue (Megas, equin 14g) |
| RV007- 10HA | Region 7 2010 | TRTSG | Pinneacle | Grain O | 0,368 | | | 0.482 0.470 | 0068 9:187 & | 0.113 | 9.750 0.771 Axg: 0761 |
| RV008- 10HA | ND Region 7 2010 | TRTSG | Tradition | Grain | Ø.372 \$0.41 7 \$ | 3 0 | | \$588 \$0.764 \$ | 60844 0.112 0.2 | 0.0378 0.0467 | 0.710 0.922 Avg: 0.816 |
| RV009- 10HA | Region 11 2010 | TRTSO | Harrington | Grain | 0.372 (0.448) | 92 | | 0.756 | <0.05© <0.050 <0.050 | 0.0351 0.0313 | 0.841 1.01 Avg: 0.925 |
| RV010- 10HA | Region 2010 | TRTSG | 10€937 @ | | 0.367 | 90 | 21 O | 1.8% 1 4 9 | 0.0818 0.0734 | 0.0507 0.0430 | 2.00 1.61 Avg: 1.81 |
| RV011- 10HA | Region 11 2010 | TRTSG | ACA Metcarfe | Grain C | 0067 (9.412) (% | 91 7 3 | | 0.798 0.627 | <0.050 <0.050 | 0.0483 0.0547 | 0.896 0.732 Avg: 0.814 |
| RV012- 10HA | Region 11 C | ~ O | | Stain C | | 92 | 21 | 0.205 0.205 | 0.339 0.274 | 0.0684 0.0583 | 0.612 0.537 Avg: 0.575 |
| RV012- | Region 13 | TRIST | Champion | Grain G | 0.174 (0.195) | 92 | 101 | <0.010 <0.010 | 0.230 0.224 | <0.010 <0.010 | 0.250 0.244 Avg: 0.247 |
| | Region La 2010 | | | | | | | Со | ntinued | on next j | nage |

Table 6.3.2.14-7 (cont'd): Total BYI 02960 Residue Data from Barley after a Seed Treatment Application with BYI 02960 480 FS or Two Foliar Applications of BYI 02960 200 SL

| | | BYI | 02960 200 | SL | | | | | | | W | 2 |
|-----------------------------------|---|-----------|--------------|-----------|--------------------------------------|--|---------------------------------|--|--|--------------------------------------|---|---|
| Trial Identification ^a | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | Total Rate Lb a.s./A (Rg.a.s./ha) | % Dry Matter | Sachhing Interval (days) © & | BY 02960 C Residue (mg/kg) | DFA Residue Ong a.s. equiv./kg) | DFEATREsidue (2) (mg.a.s. equiy./kg) | 960 Kesi | |
| RV013- 10DA | Alberta Region 14 2010 | | | | 0.367 | 57 57 57 57 57 57 57 57 57 | 270 270 | 0.465 0.383 0.277 0.240 0.290 0.294 0.315 0.301 | 0.69° 0.69° 0.661 0.663 0.847 0.786 | (0.07130) | 1.13 1.05 Avg: 0.09 0.982 0.958 Avg: 0.970 1.05 1.03 Avg: 1.04 1.02 Avg: 1.03 1.04 1.02 Avg: 1.03 | |
| | | | | | F & | | | Co | ntinued | on next j | nage | |

Table 6.3.2.14-7 (cont'd): Total BYI 02960 Residue Data from Barley after a Seed Treatment Application with BYI 02960 480 FS or Two Foliar Applications of BYI 02960 200 SL

| | | DII | 02960 200 | SL | | | | | | | Q, | |
|-----------------------------------|---|-----------|--------------|-----------|--|----------------------------|----------------------------------|--|--|------------------|---|--|
| Trial Identification ^a | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | Total Rate Lb a.s./A (Mg a.s./ha) | % Dry Matter | Sachhing Interval (days) | BY 02960 C Residue (mg/kg) | DFAResidue Ong a.s. equiv./kg) | DFEXERSidue | Total B.M. 192960 Residue (M. 1878) | |
| RV014- 10DA | Saskatchewan Region 14 2010 | | | | 0.362 0.362 0.406) 0.362 0.262 0.262 0.262 | 71 71 71 71 75 | 20 20 20 34 34 34 | 0.349 0.349 0.349 0.222 0.313 0.141 0.126 0.130 | 0.392 0.392 0.393 0.394 0.407 0.596 0.430 0.510 | 401774 | 0.829 0.801 A.g: 0.815 0.957 0.946 Avg: 0.952 0.690 0.865 Avg: 0.778 0.574 0.494 Avg: 0.534 0.553 0.560 Avg: 0.556 | |
| RV015- 10HA | Saskatchewan Region 14 | | | Gran | 0.359 (0.402) | 48 | 21 | 0.0425 0.0327 | 0.537 0.514 | 0.0170 <0.010 | 0.596 0.557 Avg: 0.576 | |
| RV016- 10HA | Manitoba Region 14 2010 | To a | Copeland | | &9.364 (0.407) | 85 | 21 | 0.262 0.335 | 0.500 0.580 | 0.103 0.105 | 0.865 1.02 Avg: 0.942 | |
| RV017- 10HA | Maintoba | TRTS | Met calle | (Srain | 0.369 (0.413) | 76 | 21 | 0.0835 0.109 | 0.969 1.22 | 0.0411 0.0552 | 1.09 1.38 Avg: 1.24 | |
| RV0187, 10HA | Manitoba Region 14 2010 | TRESO | Tradition | Grain | 0.358 (0.401) | 81 | 21 | 0.254 0.231 | 0.425 0.372 | 0.0617 0.0625 | 0.741 0.665 Avg: 0.703 | |

Table 6.3.2.14-7 (cont'd): Total BYI 02960 Residue Data from Barley after a Seed Treatment Application with BYI 02960 480 FS or Two Foliar Applications of BYI 02960 200 SL

| Trial Identification ^a | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | Total Rate Lb a.s./A (Rg.a.s./ha) | % Dry Matter | Sachhing Interval (days) | BY 02960 C Residue (mg/kg) | DFA Residue Ong a.s. equiv./kg) | DFEARRSidue | Total B.C. 42960 Residue (Megas. equin/41g) |
|-----------------------------------|---|-----------|--------------|-----------|--------------------------------------|--------------|-----------------------------|-------------------------------|------------------------------------|------------------------|--|
| RV019- | | TRTSG | Coalition | Grain | 0,360 (0,403) | Z | 197 | 0.788 | 0326 | •0. 0 921 • | 7 1.18 |
| 10HA | A lh arta | | | O , | (% 403) | | W | 6 06 | 9 .339 | 0.0747 | 1.02 |
| | Alberta Region 14 | | .,, | | | | Q .4 | | 0' | | Axg: Q10 |
| | 2010 | | Ž | | | | | | | | |
| RV020- | 2 | TRTSG | Meteralf | & Grain & | 0.372 | 62 | 20 | 9.230 d | 0.237 | 0.0282 | 0.496 |
| 10HA | Saskatchewan | | l 🔊 . | 10° '> | (0.417) | | | 0.266 | 0.244 | 0.0282 | 0.535 |
| | Region 14 | | V .V | Ö. | | | 4 | | | " | Avg: 0.515 |
| | 2010 | , S | | | Q, Y | | | | | 1 | 0.313 |

- a sampling interval is the interval between last application and the date of sampling
- b Total BYI 02960 residue is the sum of BYI 02960, DFA, and DFEAF residue in parent equivalents. Residue measurements below the analyte GOQ were summed into the total BYI 02960 residue value as the analyte LOQ value. These totals represent the upper limit of what the residue evels regist be.
- c Maximum residue found in Marley gran after Miar application of the tagget PHI of 21 days.
- d Highest average food trial PIAFT) residue found in Darley grain after foliar application at the target PHI of 21 days.
- e Maximum residue found in mature barley prain after seed treatment
- f Highest average field that (HAP) residue found in mature barley grain after seed to atment

Conclusion

Twenty field trials were conducted to measure the magnitude of total BYI 02960 residue in/on barley grain following two foliat spragapplications of BYI 02960 200 SL, or seed treatment application of BYI 02960 480FS.

The total BYI 02960 residue data for barley toliar applications or seed treatment are summarized in Table 6.3.2.14-8.

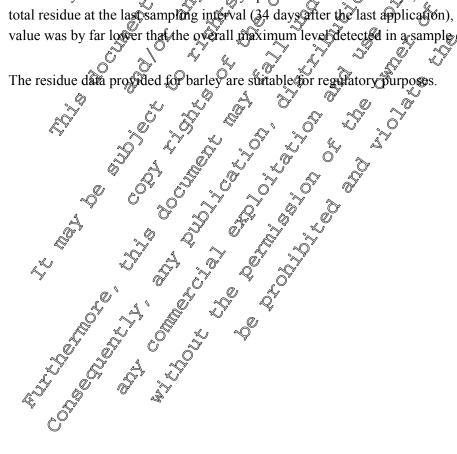
Table 6.3.2.14-8: Summary of Residue Data for Total BYI 02960 from Barley

| | | - | | Tota | al BYI 02 | 2960 Res | idue Lev | els (ppn | 1) | <i>a</i> . | , |
|--------------|------------------------|--|-----------------|------|---------------|---------------|------------------|----------|----------------|------------|-------------|
| Commodity | Plot Name ¹ | Total Application Rate lb a.s/ (kg a.s./ha) | PHI (days) | u | Min at PHI | Max at PHI | Max after PHI | AART 2 | Median 3 | Mean My | Standard |
| Barley Grain | TRTSG | 0.358 to 0.372 (0.401 to 0.417) | 21 (16 – 22) | 20 | 0.496 | 2.49 | 1.28 | 2.38 | 10,9 09 | 9.02 | © © 0.45 |
| Barley Grain | TRTST | 0.111 to 0.180 (0.124 to 0.202) | 92 - 110 | 3 | 0.244 | 0.712 | SNA ⁵ | 0.714 | 0.548 | ~ | ©21 |

- 1 TRTSG = Treated plot receiving two foliar applications of TVI 02960 200 SL for collection of straw and grain samples TRTST = Treated plot receiving cotton seeds treated with BYI 02960 480 FS for collection of grain samples
- 2 HAFT = Highest Average Field Trial
- calculated on the basis of residue values at the PHI
- Sampling day showing highest residue
- Sampling day showing highest residue

 Not applicable, since no decline trials were conducted after seed treetment

Total BYI 02960 residues in the barley grain from plots receiving two toniar sprays were generally slightly higher compared to barley grain from plots after seed treatment. The overall maximum residue was detected in a barley grain sample collected after colliar treatment and amounted to 0.24 mg/kg at the respective PHI of 21 days. The four decline that conducted after foliar application showed that the total BYI 02960 residue in barley grain experienced a general decline over the course of the study. The residues did not always peak at the HI of 21 days; one trial showed the maximum total residue at the last sampling interval (34 days after the last application), however this residue value was by far lower that the overall maximum level detected in a sample collected at the PHI.





IIA 6.3.2.15 Cereals - corn

Residue data from NORTH AMERICA

BYI 02960 is to be registered in USA and Canada for use as a foliar treatment in on cereal grains, except rice (crop group 15). Representative crops tested were barley, <u>field and sweet corn</u>, sorghum and wheat. The use pattern for field and sweet corn in North America is summarized in Table 6.3.2.15-1.

A total of thirty-three field trials were conducted in cosp. The studies are described below.

Table 6.3.2.14-1a: Target Use Pattern for the Application of BVI 02960 on Corn (to gain grains and kernels plus cob with husks removed)

| | | | | Targe | Rate/Appli | ication, | | 8 | <i>o</i> ć | | Sp Vol | ray lume |
|-------------|---------------------|--------|------|-------------------|------------|----------|------------|----------|------------|-----------------|------------|-------------|
| | | | | ulated ct (PP) | & Active & | sbstance | e (a.s.P - | Target | Färget | A diuvant | | |
| Application | Test | No. of | | | \\Name@f | | ∂ | Interval | PHI | Additive (%) | | |
| Type | Substance | Apps | mL/A | √fl oz/A© | a.s. | a.s./A | a/s./ha | (Days) | (Days) | (%) | GPA | LPHA |
| Foliar | BYI 02960 200 SL | 2 | 415 | , 14,0 | BX 02960 | | |) | Q 1 | 0.25 | 10 - 50 | 93 - 467 |

In parallel, six residue trials were conducted with BYI 02960 480 FS following a seed treatment application. The seed treatment rates for cornaire presented below.

Table 6.3.2.14-1b: Target Use Pattern for the Application of BY 02960 on Corn (to gain grains and kernels plus cob with husks removed)

| | | | | ∜ ⊝Tar g e | Rate/Appli | icarion | | J. | | | _ | ray lume |
|---------------------|---------------------|-----------------|---------|----------------------|---------------|--|-----------------|--------------------|------------------|------------------|-----------------|-----------------|
| °, | Q Q | | Produ | ulated ´ct (\$P) | Active Su |) ibstake | e (a,s.)) | Target | | | | |
| | , | Ü. | mL/ | ©fl | Name of | lb@s.s./ | kga.s./ | App. | Target | Adjuvant | | |
| Application Type | Test Substance | No. of | ¥00 kg | ,0Z/1U0≫ Ib seed | Name of gals. | , 100 lb ⁸ seed ² | 1000 kg seed | Interval (Days) | PHI (Dave) | /Additive (%) | CPA | LPHA |
| Seed | Dubstance | ripps | 3 C Car | 10 3000 | (() | Becau | sceu | (Days) | (Days) | (/ 0) | UIA | LIIIA |
| treatment | BYI 02960 480 FS | Ql ^y | 0-03 | ©10 ⁻⁰⁴ | BYI 02960 | 5.299X | 1.5 | NA ¹ | ECH ² | NA ¹ | NA ¹ | NA ¹ |

- 1 NA = Not applicable.
- 2 ECH = Famiest commercial harvest

| Report | KIIA 6.3.2.15/01; 2012 |
|-------------|--|
| Title | BYI 02960 200 SLand BYI 02960 480 FS - Magnitude of the Residue in/on Corn |
| Report No & | RARVYQQ2, dated June 18, 2012 |
| Document Ng | M-432754-01-1 |
| Guidelines | US: PA Residue Chemistry Test Guidelines OPPTS 860.1500, Crop Field Trials |
| | Canada: PARA DACO 7.4.1, Supervised Residue Trial Study |
| | MRA DACO 7.4.2, Residue Decline |
| | OECD Guidelines for the Testing of Chemicals, 509, Crop Field Trial, |
| | Adopted Sept. 7, 2009. |
| GLP O | Yes |

Thirty-three field trials were conducted to measure the magnitude of BYI 02960 residues in/on field corn forage, field corn stover, field corn grain, sweet corn forage, sweet corn stover, and sweet corn kernels plus cob (= ear) with husks removed (K+CWHR) following two broadcast foliar spray applications of BYI 02960 200 SL. Six of these field trials also included plots to measure the magnitude of BYI 02960 residues in these same matrices following the planting of seed treat with BYI 02960 480 FS. Since corn forage and corn stover (as feed items) are not imported into Europe this dossier will focus on field and sweet corn kernels, only. Complete information on the study including the data on the feed items, has been submitted in the Global Johnt Review Submission in October 2012.

BYI 02960 200 SL is a soluble concentrate formulation containing 200 BYI \$2960/\$\text{Sand BYI} 480 FS is a flowable concentrate containing 480 g BYI 02960/6. trials conform to the guidance given by the EPA (Tables 6.32.15-2 and 6.3.2.15

Trial Numbers and Geographical Locations for BY 02960 in/on Field Corn Table 6.3.2.15-2:

| Table 6.3.2.15-2: | Trial Numb | ers and Geographi | cal Locati | ones for BY | I 029@ | ∛in/oan _e F | ield Ĉo | rn |
|--|------------|--------------------|------------|-------------|---------|------------------------|--------------|----|
| NAFTA Growin | g Region | pers and Geographi | | Requested | | | | (|
| 1 | | | Y N | | | | | ? |
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| | | | | | | | | |
| 14 Total | | | | | | | | |
| Togal | | 20 | | 20 | | | | |

Four of the wenty field corn trials were decline trials (four trials in Region 5). The additional decline trials were performed meet EU requirements.



Table 6.3.2.15-3: Trial Numbers and Geographical Locations for BYI 02960 in/on Sweet Corn

| NAFTA Growing Region | Submitteda | Requested | |
|----------------------|------------|-----------|---|
| 1 | 2 | 2 | |
| 1A | | * | |
| 2 | 1 | 1 | |
| 3 | 1 | 1 4 | |
| 4 | Ĉ | ¥. | |
| 5 | 5 | 5 | |
| 5A | , É | | |
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| 6 | | | |
| 7 | | | |
| 7A | | Q P | |
| 8 9 10 11 | | | |
| 9 | | | |
| 10 | | | |
| 11 | | | |
| 12 % | | | |
| 1 3 | | | |
| 14 | | (13) | • |
| Total 🗸 💢 | | (13) | |

a Two of the thirteen weet corn trials were decome trials (one trial each to Regions 1 and 5)

Material and Methods

For the ptots receiving toliar applications, individud application are ranged from 0.178 to 0.200 lb BYI 02960/A/application (0.199 to 0.224 kg BYI 02960/ha/application). Seasonal application rates ranged from 0.361 to 0.380 lb ByI 02960/A (0.005 to 0.426 kg BYI 02960/ha) for the plots receiving foliar applications. Foliar applications were made to the TRTF plots (= treated plots receiving two foliar applications of BYI 02960 200 SL for the collection of forage samples from field corn trials and forage and kernel plus cob without husi samples from sweet corn trials at a target 7-day PHI) at growth stages ranging from BBCH 63 to 85 BBCH 63: male: pollen shedding; female: tips of stigmata visible; BBCH 85 dough stages and to the TRTSG plots (= treated plots receiving two foliar applications of BYI 02960 200 SL for the collection of grain and stover samples from field corn trials and stover samples from sweet corn trials and stover samples from sweet corn trials and target 21-day PHI) at growth stages ranging from BBCH 71 to 99 (BBCH 71) beginning of grain development; BBCH 89: fully ripe). The interval between the applications ranged from 5 to 8 days and the spray volumes ranged from 10 to 41 GPA (94 to 380 L/ha).

Altifoliar opplications were made using ground-based equipment. An adjuvant (Dyne-Amic, Agral 90, Unity, of Ag Surf) was used in all of the foliar applications at a rate of 0.25% (v/v).



Corn seeds were treated at the Bayer CropScience Seed Technology Center with BYI 02960 480 FS at a target rate of 1.5 mg BYI 02960/seed using procedures typical of commercial seed treatment operations. Following treatment and shipment to the field sites, the treated seeds were planted into the TRTST plots (= seed treatment plots) at seeding rates ranging from 21,876 to 32,000 seeds/A (\$4.057 to 79,074 seeds/ha). The resulting soil application rates ranged from 0.048 to 0.006 lb BYI 02060/A (0.054 to 0.119 kg BYI 02960/ha).

Trial Site conditions, including soil characteristics are summarized in Table 6.3.2.15-4. Study use patterns are summarized in Table 6.3.2.15-5.

Table 6.3.2.15-4: Trial Site Conditions for BYI \$2060 on Corn

| 14010 0.5.2.15 1. 111 | eur Bric Condition | Do Contraction | | , ŌŠ | ~ | √O. Ø | d C' |
|---------------------------------|-------------------------|------------------|-----------------|--|--------------|---------------------------|------------------|
| | | Soil Char | acterist | ics | <i>~</i> (| Meteorolo | gical Datab |
| Study Location (City, State) | Trial Number | Type V | OM OM | pH | CEC | Total Rainfall (in) | Temp.° Rang (°F) |
| , NY | RV021-10HA | Sandy Loam | y 3.2 (| 6.6 | 11.5 | 4.70 | 3 4-71 |
| , SC | RV022-10HA | Loamysand | 1.0 | £38 | | 3 3.68 | ∂ 65-91 |
| , IA | RV023-10HA | Solt loan | $\sqrt[3]{2}$ | 06.8 | 14.8 | Ĵ 44.6 8 % | 52-86 |
| , KS | RV02410HA | Silt Loom | " 3. 2 % | 7,2 | 190 | 28.84 | 54-92 |
| , ND | RV025-10HA | Silty Clay Loaga | 4/3 | 74.7 | 28 .2 | 9.55 | 37-86 |
| , ON | %V026-10HA | Sit Loafp | »3.19 × | ¥7.5 | 26.6 | ^J 11.20 | 36-82 |
| , KS | √ RV027-10HA | O Salat S | 0.6 | 6.2 | 43 | 16.58 | 51-93 |
| , MO | RV028-10 1A | SikiLoam | @1.8 | \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | 7 3.8 | 9.74 | 43-89 |
| , ON | RV020-10HA | Loain | 2.5@ | 7,5 | 12.1 | 11.20 | 36-82 |
| , NE | RV⊕30-101⊕X | Silt Lom | 207 | 6.3 | 18 | 3.62 | 53-87 |
| , IA | _ RV031- © 0HA _ | M arion a | 2 | ∜7.8 | 15.5 | 9.91 | 39-84 |
| , ON | RV0 3 2-10HA | Sandy Doam | $2\sqrt{3}$ | 7.6 | 14.1 | 5.31 | 39-66 |
| , KS | RX 033-100 A | Silt Loam | 3 .2 | 7.2 | 19.2 | 8.70 | 59-92 |
| , ON | RV034000HA | Sandy Loam | , 2.9 | 7.6 | 16.1 | 7.43 | 38-68 |
| , KS Q | ₹RVØ\$5-10HCA | Særði of | 0.3 | 6.5 | 5.7 | 6.67 | 59-93 |
| , IA 🔷 U | RQ036-19DA | Silty Clay Lorm | 3.9 | 6.2 | 21 | 7.00 | 41-78 |
| ON | RV033710DA | Silty clayJoam | 4.1 | 7.7 | 25.8 | 10.86 | 39-80 |
| , NE | RY038-10DA | Siltooam | 2.2 | 7.3 | 10.5 | 13.32 | 56-86 |
| , MN | ₹ ₹003940DA 4 | Say loam | 5.7 | 7.3 | 24.4 | 22.38 | 38-83 |
| | RV040-10H& | Sandy Clay Loam | 1.1 | 8.1 | 30.2 | 15.35 | 77-97 |
| QA A | R\$041-1011A | 🕡 Loam | 2.4 | 6.2 | 9.2 | 22.57 | 53-95 |
| NY | RV042 10DA | Sand | 2.5 | 6.9 | 6.6 | 14.44 | 41-82 |
| , GAQ A | R V 043-10HA | Loamy Sand | 0.75 | 5.3 | 3 | 4.95 | 33-82 |
| FL O | &V044-10HA | sandy loam | 1.5 | 5.9 | 8.7 | 9.32 | 69-94 |
| DYA | RV045-10HA | Silt Loam | 3.9 | 6.87 | 12.9 | 44.68 | 52-86 |
| IL IL | RV046-10HA | Silt Loam | 2.3 | 5.9 | 11.9 | 11.46 | 56-90 |
| , ON | RV047-10HA | Sandy Loam | 2.1 | 7.6 | 14.1 | 15.64 | 39-80 |
| | | | | | | | |

| , NE RV048-10HA | Loamy Sand 1 | .3 7.4 | 7.2 | 20.76 | 47-94 |
|-----------------|--------------|--------|-----|-------|-------|
|-----------------|--------------|--------|-----|-------|-------|

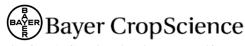
Table 6.3.2.15-4 (cont'd): Trial Site Conditions for BYI 02960 on Corn

| | | Soil Char | acterist | tics ^a | | Meteorolo | gical Data |
|------------------------------|--------------|-----------------|----------|-------------------|-----------------|----------------|----------------------|
| Study Location (City, State) | Trial Number | Туре | % OM | pН | ØEC | Total Rainfall | Tentr. Range (°F) |
| , NE | RV049-10DA | Silty Clay Loan | 3 | 6.5 | 18.4 | 8 ,76 ~ | 53-88 |
| , SK | RV050-10HA | Loam | 4 | \$ 6 | NA ^c | © 4.41 \$ | 42,62 |
| , CA | RV051-10HA | Sandy Lam | 0.58 | 5.7 ° | 5.10 | 0.64 | \$3-92° |
| , ID | RV052-10HA | Fine sandy loam | 2,8 | ~ & 3 | 20°/1 | Q.69 Q | 41-87 |
| , OR | RV053-10HA | Clay Loagy | 5°3.4 € | € 5.5 × | 915.3° | 7.75 | 47 -73 |

- a Abbreviations used: %OM = percent organic matter; CEC cation & change capacio
- b Data is for the interval of the month of first application through the month of last sampling Meteorological data were obtained from nearby government weather stations.
- c NA = Not Available.

Table 6.3.2.15-5: Study Use Pattern for BYI 02960 200 SL and BYI 02960 480 FS on Corn

| 3 | * ** | ~ ~ ~ | - F | Applic | ation | 0 | 0 | | |
|--|-------------------------------|--|-----------------------------------|---------|-------------|---------------------------------------|-----------------------------|--------------------------------------|-------------------------|
| Frial Identification | End-use Product (Hormulation) | Plot Name and of the state of t | [*] O∑ ∴Metho© (∑∑ | | | Rate lb a.s./A Programme (kg a.s./ha) | Retreatment Interval (days) | Total Rate lb a.s./A (kg a.s./ha) | Tank Mix Adjuvants |
| Foliar Application/Feld Corn | | | | A) | | | | | |
| RV021-10HA (Region) (N) (Region) (N) (Region) (N) (Region) (N) (Region) (N) (Region) (R) (R) (R) (R) (R) (R) (R) (R) (R) (| SYI 2960 200 SL | TRAF | Broadcast Ofoliar | ВВСН 79 | 30 (280) | 0.184 (0.206) | NAª | 0.366 (0.411) | Dyne-Amic, 0.25% v/v |
| | | | | ВВСН 83 | 30 (280) | 0.183 (0.205) | 5 | | Dyne-Amic, 0.25% v/v |
| RV027-10HA Region 1 | BX/ 29600 200 SJ | Z/ TRTS© | Broadcast foliar | BBCH 79 | 30 (280) | 0.183 (0.205) | NA | 0.365 (0.409) | Dyne-Amic, 0.25% v/v |
| | | V D | | ВВСН 83 | 30 (280) | 0.182 (0.204) | 6 | | Dyne-Amic, 0.25% v/v |
| RV02240HA (Region 2 2010) | BYI 2960 200 SL | TRTF | Broadcast foliar | BBCH 75 | 15 (140) | 0.183 (0.205) | NA | 0.366 (0.410) | Dyne-Amic, 0.25% v/v |
| | | | | BBCH 83 | 15 (140) | 0.183 (0.205) | 6 | | Dyne-Amic, 0.25% v/v |



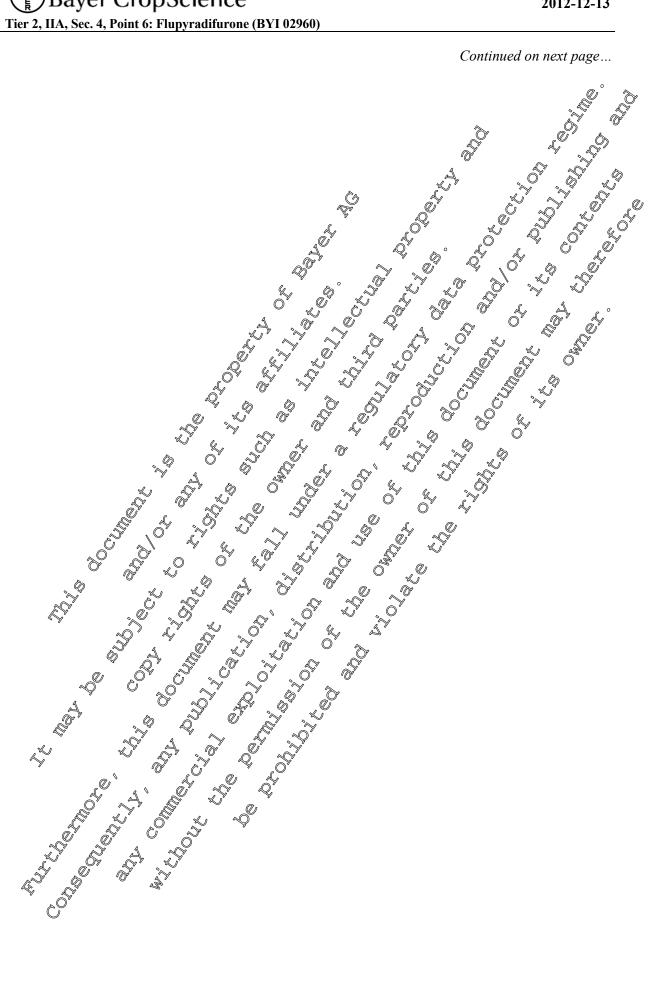




Table 6.3.2.15-5 (cont'd): Study Use Pattern for BYI 02960 200 SL and BYI 02960 480 FS on Corn

| | | | | | Annlie | ation | | | | |
|----------------------|---|---|-----------|------------------------|----------------------------|-----------------------|---|-------------------------------|---|--|
| Frial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Method Ag | Liming/Growth Stage (BRCH) | Rual Spray Volume GPA | Rate lb a.s./A Page lb a.s./A Rate la la la la la la la la la la la la la | Refreatment Interval days) | Rotal Rate Oba.s./A Reg (Cha) Log (Cha) | Tank Mix Adjurants |
| | tion/Field Corn | | <u> </u> | | | | | | | J. |
| RV022-10HA | , SC Region 2 2010 | BYI 2960 200 SL | TRTSG | Broadcast foliar | BBC089 | (130) | 0.f81 (0.203) (0.203) (0.203) | | 0.364 | Dyne-Amic, ©25% v/v Dyne-Amic, |
| RV023-10HA | , IA Region 5 | \$\frac{1}{\infty}\$\frac | TRTF | Broadcast | | 0130) 16 (150) | 0.183 (\$205) | NA NA | 0.365 (0.410) | 0.25% v/v Dyne-Amic, 0.25% v/v |
| | 2010 | | | | BBGT 85 | \$16 \$150) | 0 83 (9.205) | 6 | | Dyne-Amic, 0.25% v/v |
| RV023-10HA | NIA Begion & O 2010 | BYI 2960 200©L | TRTSG | Broadcast folia | | (160) | 0.185 (0.207) | NA | 0.368 (0.412) | Dyne-Amic, 0.25% v/v |
| | | | | | BBCO 87 | 18 (170) | 0.183 (0.205) | 7 | | Dyne-Amic, 0.25% v/v |
| RV024-10HA | Region 2010 | \$\frac{1}{2}\frac{1}{2 | TRITE | Broadcast of foliar | BBCH 83 | (140) | 0.186 (0.208) 0.182 | NA 7 | 0.368 (0.412) | Dyne-Amic, 0.25% v/v Dyne-Amic, |
| * | | | | | | (150) | (0.204) | | 0.262 | 0.25% v/v |
| RV024-10HA | Region 5 | BYI 2960 200 SL | TRASG | Broadcast foliar | BBCH 85 | | 0.182 (0.204) 0.180 (0.201) | NA 5 | 0.362 (0.405) | Dyne-Amic, 0.25% v/v Dyne-Amic, 0.25% v/v |



Table 6.3.2.15-5 (cont'd): Study Use Pattern for BYI 02960 200 SL and BYI 02960 480 FS on Corn

| | | | | | Applic | ation | | | | o |
|----------------------|---|-------------------------------|-----------|-----------------------|------------------------------|-------------------------------|--|----------------------|--|--------------------------------------|
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Method & | Uming/Growth Stage (BBCH) | Kanal Spray Volume GPA (L/ha) | Rate lb a.s./A A | Refreatment Interval | Total Rate Obsa.s./A (kg .C./ha) | Tank Mix Adjuvants 220 |
| | tion/Field Corn | | | | | 4 | | r , | ~ × |) · |
| RV025-10HA | ND Region 5 2010 | BYI 2960 200 SL | TRTF | Baradcast Tofoliar | | (190) | 0.186 (0.208) (0.208) (0.208) | | 0.369 | Dyne-Amic, ©25% v/v Dyne-Amic, |
| | | | TO TO | | | (190) | 0583 (0.205) |) | *\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | 0.25% v/v |
| | Region 5 | 3 YI 2960 200 SL | TRTSG | Broadcast, foliar | | 20 (190) (190) | 0.183 | NAV | 0.367 (0.412) | Dyne-Amic, 0.25% v/v |
| | 2010 | | | | BBCH 85 | ©20 ©190) © | 0 984 (0.206) | 6 | | Dyne-Amic, 0.25% v/v |
| RV026-10HA | Region 5 | BYI 2960 200 SL | TRIF | Broadcast foliar | BBCF 75 | (300) | 0.183 (0.205) | NA | 0.366 (0.410) | Agral 90 @ 0.25 % v/v |
| | | | | | BBCH 83 | 32 (300) | 0.183 (0.205) | 5 | | Agral 90 @ 0.25 % v/v |
| RV026-10HA | ON Region 50 | 8Y1 2950 200 SI | TRTSG | Broadcast foliar | ВВСН 85 | 33 (310) | 0.185 (0.207) | NA | 0.371 (0.416) | Agral 90 @ 0.25 % v/v |
| | | | | Broadcast | ВВСН 85 | 33 (310) | 0.186 (0.209) | 7 | | Agral 90 @ 0.25 % v/v |
| RV027-10HA | , KS Region 5 \ 2010 | SYI 2960 200 SL | TRAF | Broadcast foliar | ВВСН 73 | 20 (190) | 0.185 (0.207) | NA | 0.365 (0.410) | Dyne-Amic, 0.25% v/v |
| | Region 5 | | Į) | | ВВСН 75 | 20 (180) | 0.181 (0.202) | 7 | | Dyne-Amic, 0.25% v/v |



Table 6.3.2.15-5 (cont'd): Study Use Pattern for BYI 02960 200 SL and BYI 02960 480 FS on Corn

| | | | | | Applic | ation | | | | |
|----------------------|---|---|-----------|---------------------|----------------------------|--------------------------------|---|--|-----------------------------------|-------------------------|
| | | | | | Applic | auuli | | | | |
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Methods AR | Timing/Growth Stage (BBCH) | Achaal Sprag Volume GPA (L/ha) | Refer the a.s./A Can the same of the same | Refreatment Interval (davs) | Total RatkObsa.s./A & (kg and ha) | Tank Mix Adjurants |
| | tion/Field Corn | | 4 | | ŢŢ | 4 | | r 9 | | J [*] |
| RV027-10HA | , KS Region 5 2010 | BYI 2960 200 SL | TRTSG | Broadcast Foliar | BBC 085 | | 0.183 (0.205) | \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | 0.3 6 1 (0.305) | Dyne-Amic, Ø25% v/v |
| | | | | | BBCH 87 | | 0\$78 (0.199) | | | Dyne-Amic, 0.25% v/v |
| RV028-10HA | , MO Region 5 | SÝI 2960 200 SL | TRTF | Broadcast, foliar | BBC | 19 (770) | 0.1 9 8 (6)199) | NAV | 0.364 (0.409) | Dyne-Amic, 0.25% v/v |
| | | | | | , O | &20 5190) | 0 P 87 (0 .210) | 7 | | Dyne-Amic, 0.25% v/v |
| RV028-10HA | Region 5 | 2 4 | TRASG | Broadcast folia | BBCP85 | 26 (180) U | 0.180 (0.202) | NA | 0.366 (0.410) | Dyne-Amic, 0.25% v/v |
| | | | | | BBCH 87 | 20 (190) | 0.186 (0.209) | 7 | | Dyne-Amic, 0.25% v/v |
| RV029-10HA | ON Region 5 | \$\frac{1}{2}\frac{1}\frac{1}{2}\f | TRAF | Broadcast | ВВСН 75 | 32 (300) | 0.187 (0.209) | NA | 0.370 (0.414) | Agral 90, 0.25 % v/v |
| | J'A | <i>✓</i> ✓ <i>✓</i> | | | | | 0.183 (0.205) | 5 | | Agral 90, 0.25 % v/v |
| RV029-10HA | , ON O | \$\frac{1}{2}\text{12960} \$\frac{1}{2}\text{200}\text{5}\text{1} | TRTSG | Broadcast foliar | BBCH 87 | 33 (310) | 0.183 (0.205) | NA | 0.367 (0.411) | Agral 90, 0.25 % v/v |
| | Region 5 2010 | | | | BBCH 87 | 32 (300) | 0.184 (0.206) | 7 | | Agral 90, 0.25 % v/v |



Table 6.3.2.15-5 (cont'd): Study Use Pattern for BYI 02960 200 SL and BYI 02960 480 FS on Corn

| | | | | | Applic | ation | | | | |
|----------------------|---|-------------------------------|-----------|-----------------------|------------------------------|---|---|----------------------|--------------------------------|--|
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Method A | Uming/Growth Stage (BBCH) | Actual Sprag Volume GPA (L/ha) | Race lb a.s./A A | Refreatment Interval | Total RateOba.s./A (kg as./ha) | Tank Mix Adjurants |
| | tion/Field Corn | 1 | | | | | | | ~ | J |
| | , NE Region 5 2010 | BYI 2960 200 SL | TRIF | Broadcast Tofoliar | BBCD 83 | Ô | _0_ | | 0.36% | Unity, 25% v/v Unity, 0.25% v/v |
| | , NE Region 5 2010 | | | Breadcast, foliar | BBG# 87 | 20 (190) (20 (20 (20) (20) | 0.182 (\$204) (\$204) \$2 (\$204) | N | 0.365 (0.409) | Unity, 0.25% v/v Unity, 0.25% v/v |
| ĘĠ" | , IA Region 2010 | | TRYF | Broadcast Folian | | (170) 19 (180) | 0.184 (0.206) 0.184 (0.206) | NA 8 | 0.368 (0.412) | Dyne-Amic, 0.25% v/v Dyne-Amic, 0.25% v/v |
| . A | , IA Region | 8 Y I 2960 200 GI | TRTSG | Broadcast | | | 0.179 (0.201) 0.183 (0.205) | NA 7 | (0.406) | Dyne-Amic, 0.25% v/v Dyne-Amic, 0.25% v/v |
| RV032-10HA | Region 5 2010 | EVI 2960 2005 5 | TRIF | Broadcast foliar | BBCH 83 | (120) | 0.183 | NA 6 | 0.366 (0.411) | Dyne-Amic, 0.25% v/v Dyne-Amic, 0.25% v/v |



Table 6.3.2.15-5 (cont'd): Study Use Pattern for BYI 02960 200 SL and BYI 02960 480 FS on Corn

| | | | | | Annlie | ation | | | | |
|----------------------|---|-------------------------------|-----------|---------------------|--------------------------|--|---|-------------------|----------------------------|-------------------------|
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | ше | | Aming/Growth Stage BRCH) | Sprag Yolume GPA to the sprage of the sprage | a.s./A The state of the state o | reatment Interval | are Obass./A | Adjurants |
| ial Id | ocatio) | əsn-pı | Plot Name | Method | Žming/ BB(CH) | Ana) | Race lb a.s kg å.©ha) | great avs) " | Stal Rafe Kg & ha) | Tank |
| | | 된 | | | | A F | <u>සී</u> ජ | ∤≱ ತ | Ĭ~₽¥ | Ç ï |
| | tion/Field Corn | | <u> </u> | | | ' | | , . I e | ~ | J |
| | , ON Region 5 2010 | BYI 2960 200 SL | TRTSG | ofoliar | BBCf085 | (130) | 0.184 (0.206) | | 0.3 6 (0.13) | Dyne-Amic, Ø25% v/v |
| | | | | F F | BRCPI 87 | (O)* | \$\frac{1}{2}\text{\$\frac{1}\text{\$\frac{1}{2}\text{\$\frac{1}{2}\text{\$\frac{1}{2}\text{\$\frac{1}{2}\text{\$\frac{1}{2}\text{\$\frac{1}{2}\text{\$\frac{1}{2}\text{\$\frac{1}{2}\text{\$\frac{1}{2}\text{\$\frac{1}\text{\$\frac{1}\text{\$\frac{1}\text{\$\frac{1}{2}\text{\$\frac{1}\text{\$\frac{1} | | | Dyne-Amic, 0.25% v/v |
| | , KS Region 5 | BYI 2960 206 SL | | Broadcast | BBCO 83 | 3 6 | 0.185 | NA b | 0.367 (0.412) | Dyne-Amic, 0.25% v/v |
| | | | | | BB©1 83 | \$\frac{1}{\sqrt{150}}\$ | (9) 82 (0.204) | 7 | | Dyne-Amic, 0.25% v/v |
| RV033-10HA | Begion S 2010 | n 4 = | TRTSG | Broadcast folia | BBCO 85 | 46 (150) | 0.184 (0.206) | NA | 0.369 (0.414) | Dyne-Amic, 0.25% v/v |
| Ğ | | | | | BBCH 85 | 16 (150) | 0.185 (0.207) | 5 | | Dyne-Amic, 0.25% v/v |
| RV034-10HA | Region 2010 | BYI 2960 200 SL | TRIF | Rioadcast foliar | ВВСН 83 | 16 (150) | 0.189 (0.212) | NA | 0.376 (0.421) | Dyne-Amic, 0.25% v/v |
| | | | | | BBCH 85 | 16 (150) | 0.187 (0.210) | 6 | | Dyne-Amic, 0.25% v/v |
| RV034-10HA | Region 5 | BYI 2560 2000 SL | TROSSG | Broadcast foliar | BBCH 87 | 21 (200) | 0.180 (0.202) | NA | 0.362 (0.405) | Dyne-Amic, 0.25% v/v |
| | Region 3 | | | | BBCH 87 | 21 (200) | 0.182 (0.204) | 7 | | Dyne-Amic, 0.25% v/v |



Table 6.3.2.15-5 (cont'd): Study Use Pattern for BYI 02960 200 SL and BYI 02960 480 FS on Corn

| Table 0.5.2.15-5 (cont.d). Study Ose Fattern for B 11 02900 200 SL and B 11 02900 480 FS on Com | | | | | | | | | | |
|---|---|--|-----------|---------------------|----------------------------|-----------------------------------|---------------------------------------|--------------------------------|-------------------------------|--|
| | | | 1 | | Applic | ation | | | | Q° 🛼 |
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Methode A | Timing/Growth Stage (BRCH) | Actual Sprag Volume GPA (L/ha) | Race ib a.s./A Cha | Refreatment Interval (days) | Total RateObya.s./A (kg & In) | Tank My Adjurants |
| Foliar Applicat | | | | | | ~ <u>~</u> | | R | ~ | J |
| RV035-10HA I | , KS Region 5 2010 | | TRIF | | BBC 73 | (190) (190) (180) | 0.188 (0.210) (0.279 (0.200) | | 0.366 | Dyne-Amic, 0/25% v/v Dyne-Amic, 0.25% v/v |
| RV035-10HA | , KS Region 5 2010 | | TRTSG | | BBCH 87 | 20 (390) (20 (3190) | 0.185 (207) (207) (209) | 7 | 0.371 (0.416) | Dyne-Amic, 0.25% v/v Dyne-Amic, 0.25% v/v |
| RV036-10DA | JA Segion 5 2010 V | \$\frac{1}{2}\text{12860}{200.5\text{Y}} | TRIF | Broadcast folia | BBCH 85 | (290) (290) 32 (300) | 0.184 (0.206) 0.186 (0.208) | NA 7 | 0.370 (0.414) | Dyne-Amic, 0.25% v/v Dyne-Amic, 0.25% v/v |
| | | | | Broadcast | ВВСН 85 | 32 (300) | 0.189 (0.211) 0.187 (0.210) | NA 7 | (0.421) | Dyne-Amic, 0.25% v/v |
| RV037-10DA | , ON Region 5 2010 | \$\frac{1}{2960}\$\frac{1}{200.5}\$\frac{1}{2}\$ | TRAP | Broadcast foliar | BBCH 83 | (290) | 0.200 | NA 6 | 0.380 (0.426) | Agral 90, 0.25 % v/v Agral 90, 0.25 % v/v |



Table 6.3.2.15-5 (cont'd): Study Use Pattern for BYI 02960 200 SL and BYI 02960 480 FS on Corn

| | | Application | | | | | | | | |
|----------------------|---|---|-----------|---------------------|----------------------------|---|--|----------------------|-----------------------------------|--|
| Frial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Methode 20 | Liming/Growth Stage BB(CH) | Rual Sprag Volume GPA (L/ha) | Rate lb a.s./A A A A | Refreatment Interval | kotal Ratechba.s./A kg ao./ha) | Tank Mix Adjurants |
| | tion/Field Corn | | | <u> </u> | | × ~ ~ | | | | |
| RV037-10DA | , ON Region 5 2010 | BYI 2960 200 SL | TRTSG | Broadcast foliar | BBC 85 | (280) | 0.182 | | 0.359 | Agral 90, |
| | | | | \$ | | 0' | (0.199) (0.199) | Ş" (4. | | Agral 90, 0.25 % v/v |
| RV038-10DA | Region 5 2010 | WYI 2960 206 SL | TRTF | Broadcast folian | BBCH 85 | 24 (220) (220) (220) (220) (190) | 0.181 (\$2203) \$3.84 (\$0.206) | NON 6 | 0.365 (0.409) | Dyne-Amic, 0.25% v/v Dyne-Amic, 0.25% v/v |
| RV038-10DA | NE Begion Q | | TRISG | Broadcast foliat | | (180) | 0.182 (0.204) | NA | 0.362 (0.406) | Dyne-Amic, 0.25% v/v |
| | | | | | BBCO 87 | 18 (170) | 0.180 (0.202) | 6 | | Dyne-Amic, 0.25% v/v |
| RV039-10DA | Kegions 2010 | \$\frac{\partial}{\partial} \frac{\partial}{\partial} \frac{\partial}{\ | TRTF | Broadcast foliar | BBCH 83 | 20 (190) | 0.184 (0.206) | NA | 0.367 (0.411) | |
| ¥ | | | n ~(~) | | | | 0.183 (0.205) | 7 | | Dyne-Amic, 0.25% v/v |
| RV039-10DA | Region 5 | BYI 2960 2005 L | TRESG | Broadcast foliar | BBCH 85 | 20 (190) | 0.183 (0.205) | NA 7 | 0.365 (0.410) | Dyne-Amic, 0.25% v/v |
| | | <i>y</i> | | | BBCH 85 | 20 (190) | 0.183 (0.205) | 7 | | Dyne-Amic, 0.25% v/v |



Table 6.3.2.15-5 (cont'd): Study Use Pattern for BYI 02960 200 SL and BYI 02960 480 FS on Corn

| | | | Application | | | | | | | |
|--|---|-------------------------------|-------------|------------------------|---------------------|--|---------------------|----------------------|--|-------------------------|
| | TA | tion) | | | Аррис | | | | | |
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Method A | Çîming/Gı BB(CH) | ************************************** | Rate lb a.s./A Cha) | Refreatment Interval | Total RateOba.s./A (kg @ha) | Tank May Adjurants |
| | tion/Field Corn | | % | | Š Ž | 4 | | | |)` |
| | TX Region 6 2010 | BYI 2960 200 SL | TRTF | Bitoadcast Offoliar | BBC 075 | (94) | 0.184 (0.207) | | 0.3 7 () (0.315) | Dyne-Amic, ©25% v/v |
| DV040 10114 | | | | | BBCPI 79 | | 0.208) 0.188 | | \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ | Dyne-Amic, 0.25% v/v |
| | TX Region 6 2010 | PSYI 2960 206 SL | TRUSG | Broadcast folian | 4 | 496) . (496) . (5) | (© .211) | NOA ^v | 0.377 (0.423) | Dyne-Amic, 0.25% v/v |
| | tion/Sweet Corp | | | | BBCH 87 | %10 0(96) ~~ | 0.189 (0.212) | 7 | | Dyne-Amic, 0.25% v/v |
| Foliar Applica | tion/Sweet Corn | | 40 | | | ~ ~ · | | | | |
| RV041-10HA | PA Region 1 2010 | BYI 2960 200 SL | TRTF. | | BSCH 71 | ② 28 (260) | 0.185 (0.208) | NA | 0.371 (0.416) | Dyne-Amic, 0.25% v/v |
| DV041 1011 A | | | | | BBCH 73 | , | 0.186 (0.208) | | 0.271 | Dyne-Amic, 0.25% v/v |
| RV041-10HA | PA Region 1 | BY 2960, | TRTSO | foliar | BBCH 85 | 33 (310) | 0.184 (0.206) | NA | 0.371 (0.416) | Dyne-Amic, 0.25% v/v |
| , and the second | | | | | BBCH 87 | 33 (310) | | | 0.0=0 | Dyne-Amic, 0.25% v/v |
| RV042-10D | NY Region 2 | BYI 2960 200 SL | TRTF | Broadcast foliar | | 36 (330) | | | 0.370 (0.414) | Dyne-Amic, 0.25% v/v |
| | O' Ŝ | | | | BBCH 75 | 36 (330) | 0.185 (0.207) | 7 | | Dyne-Amic, 0.25% v/v |



Table 6.3.2.15-5 (cont'd): Study Use Pattern for BYI 02960 200 SL and BYI 02960 480 FS on Corn

| | | | Application | | | | | | | |
|----------------------|---|-------------------------------|-------------|---------------------|----------------------|--------------------------------|--|----------------------|-------------------------------|-------------------------|
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Method A | Liming/Growth Stage | Actual Sprag Volume GPA (L/ha) | Rate lb a.s./A A A | Refreatment Interval | Total RateOba.s./A (kg & In) | Tank Mr. Adjuvants |
| | tion/ Sweet Corn | | | | | | | , | ~ | J |
| | NY Region 1 2010 | BYI 2960 200 SL | TRTSG | Baradcast Toliar | BBC (0 71 | (330) | 0.182 (0:204) | | 0.3 6 4 (9.408) | Dyne-Amic, ©25% v/v |
| | | | | | BBCON 75 | | | | | Dyne-Amic, 0.25% v/v |
| | Region 2 2010 | PYI 2960 200 SL | TRTF | Broadcast | | 20 (190) (190) | 0.186 (\$208) ************************************ | NAT | 0.370 (0.415) | Dyne-Amic, 0.25% v/v |
| RV043-10HA | | BYI 2960 | | Disadage in | | ©21 ©190) © | 0.179 | 7 NA | 0.366 | Dyne-Amic, 0.25% v/v |
| | GA Begion 200 2010 | 200 S L | TRISG | Broadcast foliar | | (200) | (0.201) | NA | (0.411) | Dyne-Amic, 0.25% v/v |
| | | | | | BB(0) 85 | 25 (240) | 0.187 (0.210) | 7 | | Dyne-Amic, 0.25% v/v |
| RV044-10HA | FL. Region 2010 | 9YI 2960 200 SL | | Broadcast | ввсн 65 | 26 (240) | 0.179 (0.201) | NA | 0.361 (0.405) | Dyne-Amic, 0.25% v/v |
| | | | | | BBCH 73 | 25 (240) | 0.182 (0.204) | 7 | 0.265 | Dyne-Amic, 0.25% v/v |
| RV044-10HA | PL Region 3 2010 | ys Y 1 2960 200 SL | TRASG | Broadcast foliar | | (240) | 0.186 (0.208) | | 0.365 (0.409) | |
| | | | | | BBCH 89 | 24 (230) | 0.179 (0.201) | 7 | | Dyne-Amic, 0.25% v/v |



Table 6.3.2.15-5 (cont'd): Study Use Pattern for BYI 02960 200 SL and BYI 02960 480 FS on Corn

| | Application | | | | | | | | | |
|----------------------|---|-------------------------------|--|-------------------------------|--------------------------------|--------------------------------|--|----------------------|-------------------------------|--|
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Method A | (Timing/Growth Stage (BBCH) | Actual Sprag Volume GPA (L/ha) | Refre lb a.s./A Cha | Regreatment Interval | Total RateOba.s./A (kg @./na) | Tank Mix Adjurants |
| | tion/ Sweet Corn | | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ | Q V × | | | | | ~ × | J. |
| | , IA Region 5 2010 | | | Broadcast Foliar Foliar | | (180) (160) | 0.184 (Q:207) (Q:305) (Q:205) | | 0.368 | Dyne-Amic, Ø25% v/v Dyne-Amic, 0.25% v/v |
| | , IA Region 5 | 3 YI 2960 200 SL | TRISG | Bradcast, foliar, | BBC 83 | 17 (160) | 0.185 (207) (3)207) (3)86 (9).208) | 7 | 0.371 (0.415) | Dyne-Amic, 0.25% v/v Dyne-Amic, 0.25% v/v |
| | | | | , , , , | | (Q | 7 | | | |
| RV046-10HA | Region 5 | BYI 2960 2000 L | TRYF | Broadcast | | (310) | 0.184 (0.206) | NA | 0.363 (0.407) | Dyne-Amic, 0.25% v/v |
| EG . | | | | | BBCH 71 | 34 (320) | 0.179 (0.201) | 7 | | Dyne-Amic, 0.25% v/v |
| RV046-10HA | Region 50 D | EYI 2960 200 SI | TRÍSG | Broadcast O foliar | BBCH 75 | 36 (330) | 0.188 (0.210) | NA | 0.374 (0.419) | Dyne-Amic, 0.25% v/v |
| | | | | | | (330) | 0.186 (0.209) | 7 | | Dyne-Amic, 0.25% v/v |
| RV047-10HA | Region 5 D | BYI 2960 7 200 St. | TROF | Broadcast foliar | BBCH 79 | 12 (110) | 0.180 (0.202) | NA | 0.364 (0.408) | Dyne-Amic, 0.25% v/v |
| | | Ď | | | BBCH 79 | 12 (110) | 0.183 (0.205) | 7 | | Dyne-Amic, 0.25% v/v |



Table 6.3.2.15-5 (cont'd): Study Use Pattern for BYI 02960 200 SL and BYI 02960 480 FS on Corn

| | Application | | | | | | | | | |
|----------------------|---|---------------------------------------|-----------|---------------------|-----------------------------|-------------------------|---------------------|-----------------------------|--|--------------------------------------|
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Methods A | Zming/Growth Stage BBCH) | Actual Sprag Volume GPA | Refee lb a.s./A Cha | Retreatment Interval (days) | Total Rate Oba.s./A (kg and ha) | Tank Mix Adjuvants |
| | tion/ Sweet Corn | | | | | | | , | ~ | J |
| | , ON Region 5 2010 | BYI 2960 200 SL | TRTSG | Broadcast Foliar | BBC 9 85 | 11 - 2 - 2) | 0.184 (0.206) | | 0.368 | Dyne-Amic, 025% v/v Dyne-Amic, |
| | | \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | | Ö | | (130) | © 207) | J ^r | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ | 0.25% v/v |
| | , NE Region 5 | BYI 2960 206 SL | TRTF | Broadcast | | 30 (490). | 0.185 | NOA D | 0.369 (0.414) | Dyne-Amic, 0.25% v/v |
| | | | | | | (190) © | (%).84 (%).206) | 6 | | Dyne-Amic, 0.25% v/v |
| RV048-10HA | | BYI 2960 200©L | TRŢSG | Broadcast | | 1 | 0.180 (0.202) | NA | 0.366 (0.411) | Dyne-Amic, 0.25% v/v |
| | | | | | BBCOI 85 | 20 (190) | 0.186 (0.209) | 7 | | Dyne-Amic, 0.25% v/v |
| RV049-10DA | , NEdegion 2010 | SYI 2960 200 SL | TRTF | Broadcast of foliar | ВВСН 63 | 20 (190) | 0.184 (0.207) | NA | 0.367 (0.412) | Dyne-Amic, 0.25% v/v |
| Z Y | | | | | | | , | 7 | | Dyne-Amic, 0.25% v/v |
| RV049-10DA | , NE Region | BYI 2960 200 SL | TRÆSG | Broadcast foliar | BBCH 85 | | 0.188 (0.210) | NA | 0.371 (0.416) | Dyne-Amic, 0.25% v/v |
| | NE Region | | | | ВВСН 87 | 20 (190) | 0.184 (0.206) | 7 | | Dyne-Amic, 0.25% v/v |



Table 6.3.2.15-5 (cont'd): Study Use Pattern for BYI 02960 200 SL and BYI 02960 480 FS on Corn

| | | Application | | | | | | | | |
|----------------------|---|-------------------------------|-----------|----------------------|------------------------------|--------------------------------|---|----------------------|-----------------------------|--|
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Methode A | Uming/Growth Stage (BBCH) | Actual Sprag Volume GPA (L/ha) | Rate lb a.s./A Cha | Regreatment Interval | Total RateCha.s./A (kg @.// | Tank Mix Adjuvants |
| | tion/ Sweet Corn | | Q | | | ' | | · · · · | ~ | |
| | , SK Region 7A 2010 | BYI 2960 200 SL | TRIF | Paradcast of foliary | BBCM 71 | (200) | 0.182 (0.205) (0.205) (0.207) (0.207) | | 0.367 | Ag°Surf, Ø25% v/v Ag Surf, 0.25% v/v |
| | , SK Z Region 7A 2010 | BYI 2980 206 SL | | Broadcast foliato | | ②1 ②200)。 ②22 (200) | 0.183 (6.205) (0.185 (0.208) | NO 7 | 0.368 (0.412) | Ag Surf, 0.25% v/v Ag Surf, 0.25% v/v |
| | | | | Broadcast foliar | BB(14 71 | 39 (360) 29 (270) | 0.184 (0.206) 0.187 (0.209) | NA 6 | 0.370 (0.415) | Dyne-Amic, 0.25% v/v Dyne-Amic, 0.25% v/v |
| | Region 00 2010 | 7BY1 2960 200 SL | | Broadcast foliar | ВВСН 85 | (380) 37 (350) | 0.184 (0.206) | NA 7 | 0.367 (0.411) | Dyne-Amic, 0.25% v/v Dyne-Amic, 0.25% v/v |
| RV052-10HA | IID (Region 1) 2010 | BY1.2950 206-SL | TATF | Broadcast foliar | BBCH 71 BBCH 75 | 20 (190) 20 (180) | 0.186 (0.208) 0.185 (0.207) | NA 7 | 0.371 (0.415) | Dyne-Amic, 0.25% v/v Dyne-Amic, 0.25% v/v |



Table 6.3.2.15-5 (cont'd): Study Use Pattern for BYI 02960 200 SL and BYI 02960 480 FS on Corn

| | <u> </u> | | | | | | | | | |
|----------------------|---|-------------------------------|-----------|-------------------------------|----------------------------|-----------------------------------|--|----------------------|-------------------------------|--|
| | | | | L | Applic | ation | | ı | ı | o° ৯ |
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Method A | Timing/Growth Stage (BRCH) | Actual Spray Volume GPA (L/ha) | Refer the a.s./A Change the action of the ac | Refreatment Interval | Total RatkOba.s./A (kg @./na) | Tank Mix Adjurants |
| | tion/ Sweet Corn | | | | | | | | ~ | |
| | , ID Region 11 2010 | BYI 2960 200 SL | TRTSG | Broadcast Foliar Foliar | BBC 883 BBC 85 | (200) | 0.184 (0.206) (0.208) (0.202) | | 0.364 | Dyne-Amic, 0.25% v/v Dyne-Amic, 0.25% v/v |
| | , OR Region 12 | 18 Y I 2960 200 SL | TRTF | Broadcast, foliar | BBCIC 3 | 22 (200) | 0.198 | | 0.374 (0.419) | Dyne-Amic, 0.25% v/v |
| | | | | | | €20 ¶190) | 0 P86 (0.208) | 7 | | Dyne-Amic, 0.25% v/v |
| RV053-10HA | Region 10 2010 | \$YI 2960 200 \$L | TRISG | Broadcast foliat | BBCH 73 | (200) | 0.183 (0.205) | NA | 0.366 (0.410) | Dyne-Amic, 0.25% v/v |
| G G | | | | 5 J | BBCP75 | 20 (180) | 0.183 (0.205) | 7 | | Dyne-Amic, 0.25% v/v |
| Seed Treatmen | nt/Field Cern | | , X) | |)" | | | • | | |
| RV023-10HA | Region 5 2010 | BY9 02960 \$80 SC | TQTST. | Seed Treatment | BBCH 00 | | 0.106 (0.119) | NAb | (0.119) | NA ^b |
| | Region 5 | 18971 102960 480 SØ | Q, | Seed Treatment | BBCH 00 | NA | 0.048 (0.054) | NAb | 0.048 (0.054) | NA ^b |
| RV027-10HA | Region 5 0 2010 | ∠BYI ⊘02960 9480 SC | TRTST | Seed Treatment | BBCH 00 | NA | 0.105 (0.118) | NAb | 0.105 (0.118) | NA ^b |



Table 6.3.2.15-5 (cont'd): Study Use Pattern for BYI 02960 200 SL and BYI 02960 480 FS on Corn

| | | | | | 4 70 | 4. | | | | |
|----------------------|---|-------------------------------|-----------|---------------------|----------------------------|----------------------------------|---|----------------------|--|-----------------|
| | | | | | Applic | ation | | 1 | | 01° %. |
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Method? | Timing/Growth Stage (BRCH) | Kanal Sprag Yolume GPA (L/ha) | Rade lb a.s./A Programme (kg å.©ha) | Refreatment Interval | Motal Rate Oha, s./A & S./ha) (kg & S./ha) | <i>∞</i> / |
| Seed Treatmen | nt/Sweet Corn | | W. | | | L | | ř ? | ~ | J |
| | PA Region 1 2010 | Q | TRIST | Seed C Freatment | BBCOOO | | 0.102 (0:115) | | | NA ^b |
| | , IA Region 5 2010 | BYP 02960 480 SC | TRAST | " O A | |) } & | \$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | 0 | 0. 0 83 (0.093) | NA ^b |
| RV048-10HA | Region 5 | BV1 02960 \$180 SC | | See® Treatment | DDWI UU | NA S | \$0.076 @ (0.085) } |)NA ^b | 0.076 (0.085) | NA ^b |

- a NA = Not applicable
- TRTF = Treate plot recoving two foliar applications of B 1 02960 200 St. For collection of K+CWHR samples from sweet corn trials at a target PHI of 7 day
- TRTSG = Treated plot receiving two forar applications of BYI 62960 200 SL for the collection of grain samples from field
- TRTST Seed treatment trials with BYI 02960 480 FS for collection of grain (field corn) and K+CWHR (sweet corn) samples

Duplicate composite samples of kernels plus cobsolith hasks removed (K+CWHR; sweet corn) were collected from the TRTF pluts of the harvest trials at pur-harvest intervals (PHIs) of 5 to 7 days. The intended PHI is 7 days. Duplicate composite samples of grain (field corn) were collected from the TRTSG plots of the harvest trials at PHIs of 19 to 22 days.

In the decline trials, duplicate composites of K+CWHR and grain were harvested at five intervals of 0, 3, 7, 14, and 24 days, or of 16, 13 to 15, 19 to 22, 26 to 28, and 33 to 35 days, respectively. Single composite samples of K+WHR were collected from the control plots on the same day the target 7-day samples were collected from the treated plots. Single composite samples of grain were collected from the control plots on the same day the target 21-day samples were collected from the treated plots.

For K+CVHR and grain from the TRTST plots, sampling occurred at earliest commercial harvest (ECH)



The residue(s) of BYI 02960, DFA, and DFEAF were quantitated by HPLC-MS/MS using stable isotopically labelled internal standards. The individual analyte residues were summed to give a total BYI 02960 residue. Residue measurements below the analyte LOQ were summed into the total BYI 02960 residue value as the analyte LOQ value.

Findings

Concurrent recoveries of BYI 02960, DFA, and DFEAF were measured with each sec of samples to verify method performance. All recoveries were corrected for any interferences in corresponding controls. The overall mean of the recoveries for each matrix was within the acceptable range of 70 to 110%, and the standard deviation values were $\leq 26\%$ (Table 6.3.2.15-60)

Table 6.3.2.15-6: Summary of Recoveries FBYJ \$2960 from Corn

| | | | A 0 | | 0. 4 | 77" ~\ <u>\</u> |
|-------------|-----------------------------|--|---|---|-----------------------------------|-------------------------|
| Crop Matrix | Analyte | Spike Level (ppm) | Sample Size (n) | Recoveries (%) | Mean Recovery (%)a | Standard Deviation (%) |
| | BYI 02960 | 0.01 | © 13 × | 95, 10, 94, 97, 95, 104, 115, 105, 105, 105, 107, | Mean Recovery (%) ^a | 10 |
| Corn Grain | DFA | \$\tilde{\pi}\text{\text{\$\line{\pi}\text | 13 | 83, 79, 84, 83, 80, 80, 85, 88, 89, 88, 95, 84, 84 | 850 | 4 |
| | . 0 | | 3. Q' | 84, 86, 79 | 83 | 4 |
| | DFE | \$0.01\$ | 013 2 | 3 4, 89, 7, 80, 88, 90, 92, 88, 92, 96, 03, 91, 89 | 91 | 5 |
| | | | © 3 5 € | \$ @ ,88,79 | 84 | 5 |
| | DFE 45 | 0.01% | All A | 87, 88, 100, 97, 95, 190, 97, 96, 147, 95, 98 | 97 | 8 |
| Corn K+CWTR | DFA 👟 | 9 | | 76, 104, 99, 108, 86, 121, 91, 90, 104, 85, 95 | 96 | 12 |
| K+CWHŘ | DFA 📞 | 10 | 3 ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° ° | 86,8Q,89 | 86 | 3 |
| | DFEAF A | 9 31 | | \$4, 83, 98, 94, 72, 104, 100, \$8, 91, 75, 97 | 90 | 10 |
| | <i>a,</i> * .5 ⁹ | 100 | | 89, 74, 86 | 83 | 8 |

a Mean Recovery = mathematical average of altrecoverges

The freezer storage stability study indicates that BVI 02960 residues were stable in crops with high starch content during frozen storage for of least 18 months prior to analysis as shown for wheat grain as representative crop. The maximum storage period of frozen samples in this study for BYI 02960 was 325 days a summary of the storage conditions are shown in Table 6.3.2.15-7.

| Residue Component(s) | Matrix (RAC) | Maximum Average Storage Temperature (°C) ^a | Actual Storage Duration Months (Days) | Interval of Demonstrated Storage Stability Months (Pays) c |
|-------------------------|-----------------|--|---------------------------------------|--|
| BYI 02960 | Corn Grain | < -20 | 9 (269) | 18 (\$57), 🗬 |
| BYI 02960 | Corn K+CWHR | < -20 | 11 (325) | 8 (557) |
| DFEAF | Corn Grain | < -20 | 9,(269) | 18 (55/1) |
| DFEAF | Corn K+CWHR | < -20% | (325) | D 139557) |
| DFA | Corn Grain | 2 0 | 9 (269) | Q8 (550) |
| DFA | Corn K+CWHR | ₹ -20 | 110(325) | \$\ 18\(557\) |

- The maximum average storage temperature is from the time of sample receipt at BRP unit sample extraction and is the maximum of all average freezer temperatures at BRP and Pyrant. While preparing for sample avalysis, the samples were maintained in a laboratory freezer.
- maintained in a laboratory freezer.

 The storage duration is the time from field sampling through the last sample extraction.
- 2012. Storage stability of B 102960 diffuoroacetic scid, and and A. difluoroethyl-amino-furanone in plant matthes. Bayer Crop science Repo 18-month data (KIIA 6.1.1/01).

The total BYI 02960 residue data for field and sweet corn commodities following seed treatment application with BYI 02960 480 IS or two folial applications of BYI 02960 200 St are shown in Table 6.3.2.15-8.

Total BYI 02960 Residue Data from Fiel Cand Sweet Corn after a Seed Treatment Table 6.3.2.15-8: Application with BYI 02960 480 FS or Two Foliar Applications of BYI 02960

| | | .,, 0 | | | ~ | | <i>Q</i> | | | | |
|----------------------|--|--------------------|--------------|---------------------------------------|---------------------------------------|--------------|-------------------|------------------------------|------------------------------------|-------------------------------------|---|
| Trial Identification | Locathan (City, State, Region, aud Year) | | 10/15° -> // | Commodity Co | Total Rate C C Lb a.s./A (Rg a.s./ha) | % Dry Matter | Sampling Interval | BYI 02960 Residue (mg/kg) | DFA Residue (mg a.s. equiv./kg) | DFEAFResidue (mg a.s. equiv./kg) | Total BYI 02960 Residue (mg a.s. equiv./kg) ^b |
| Corn G | rain/Foliar Appl | icat <u>io</u> n/F | ield Corn | , , , , , , , , , , , , , , , , , , , | | | | | | | |
| RV621- | , NY, | TXTSG. | Hylan | Frain | 0.365 | 59 | 20 | < 0.010 | < 0.050 | < 0.010 | < 0.07 |
| 10HA | Region 1, | | Seeds HL | | (0.409) | | | < 0.010 | 0.195 | < 0.010 | 0.21 ^d |
| | 2010 | | | ₩ | | | | | | | Avg: 0.14 ^e |
| RV022- | , | TORTSG: | ØKC69972 | Grain | 0.364 | 86 | 21 | < 0.010 | < 0.050 | < 0.010 | < 0.07 |
| 10HA & | SC, Region 2, | | J | | (0.408) | | | < 0.010 | < 0.050 | < 0.010 | < 0.07 |
| * | | | | | | | | | | | Avg: |
| RV023- | 107 | ₹ TSG | 09HYBK11 | Grain | 0.368 | 80 | 21 | < 0.010 | < 0.050 | < 0.010 | <0.07 <0.07 |
| 10HA | Region 5, | UC 17%F | 0HOER | Grain | (0.412) | 80 | 21 | < 0.010 | < 0.050 | < 0.010 | <0.07 |
| | 2010 | | OHOLK | | (0.712) | | | ·0.010 | ~0.050 | ·0.010 | Avg: |
| | 2010 | | | | | | | | | | < 0.07 |



Table 6.3.2.15-8 (cont'd): Total BYI 02960 Residue Data from Field and Sweet Corn after a Seed Treatment Application with BYI 02960 480 FS or Two Foliar Applications' of BYI 02960 200 SL

| Trial Identification | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | Total Rate | 🦠 🍆 Dry Matter a | Sampling Interval | BY102960 E Residue (mg/kg) | DFA REGNIC (mga.s. equiv./kg) | The Action of th | Total BYI Orma Residue (mg a.s. Oquiv./kg) b |
|------------------------------|---|-----------|--------------------------|------------|------------------|------------------|-------------------|--------------------------------|----------------------------------|--|---|
| Corn Gi | rain/Foliar Appl | ication/F | ield Corn | | | P | Ç_ | | ~ | y W | |
| RV024- 10HA | , KS, Region 5, 2010 | | 09HYBK11 0HOER | Grain | 0.362 | | 21 | © 0.010° < 0.00° © 0.00° | <0.050 | <0.010 0.010 | ©.07 ©.007 Avg: <0.07 |
| RV025- 10HA | ND, Region 5, 2010 | TRTSG | Doalb DKC35-19 | Grains | 0,367 (0.412) | | 20 \$ | 0.016 <0.010 | <0.050 <0.050 | <0.010 ★0 .010 | <0.07 <0.07 Avg: <0.07 |
| RV026- 10HA | ON, Region 5, 2010 | TRT | Dekalb 3832 Non BT | Grain | 0.371 | Z. | 22 Q | 0.010 <0.010 \$7 | <0.030 <0.050 | <0.010 <0.010 | <0.07 <0.07 Avg: <0.07 |
| RV027- 10HA | Region 5 | TRTS | A:09HYB1 | Grade | 9,361 10.405) | | 2] ⁽⁴ | <0.010 <0.010 | <0.050 <0.050 | <0.010 <0.010 | <0.07 <0.07 Avg: <0.07 |
| RV028- 10HA | Region 5, 2010 | | MFA & Trophy | | ©366 (0.410) | | 21 */> | <0.010 <0.010 | <0.050 <0.050 | <0.010 <0.010 | <0.07 <0.07 Avg: <0.07 |
| RV029 [*] - 10HA | Region 5 | TRŢSG | Dekalb 4660 | | 0.367 | 7 78 | 22 | <0.010 <0.010 | <0.050 <0.050 | <0.010 <0.010 | <0.07 <0.07 Avg: <0.07 |
| | Region 5, 2010 | TRASG | Channel V 207-03451 | Grain (| 0.365 (0.409) | 83 | 21 | <0.010 <0.010 | <0.050 <0.050 | <0.010 <0.010 | <0.07 <0.07 Avg: <0.07 |
| RV034≠ 10HA | Region 5, | TRISG | | Grain S | 0.362 (0.406) | 87 | 21 | <0.010 <0.010 | <0.050 <0.050 | <0.010 <0.010 | <0.07 <0.07 Avg: <0.07 |
| RV032- 10HA | | TKTSG | | Grain | 0.368 (0.413) | 80 | 21 | <0.010 0.011 | <0.050 <0.050 | <0.010 <0.010 | <0.07 0.07 Avg: 0.07 |
| RV033- 1614A | Region 5, 2010 | TATSG | 83R38- 3000GT | Grain | 0.369 (0.414) | 82 | 21 | <0.010 <0.010 | <0.050 <0.050 | <0.010 <0.010 | <0.07 <0.07 Avg: <0.07 |



Table 6.3.2.15-8 (cont'd): Total BYI 02960 Residue Data from Field and Sweet Corn after a Seed Treatment Application with BYI 02960 480 FS or Two Foliar Applications of BYI 02960 200 SL

| | | 012 | 110290020 | 70 52 | | | | | | Ň | |
|----------------------|--|-----------|----------------------|-----------|------------------------------------|-------------------------------------|-------------------|--------------------------------------|--------------------------------------|---|---|
| Trial Identification | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | Total Rate (Lb a.s./A (kg a.s./ha) | o Dry Matter a | Sampling Interval | BYI 02960 E Residue (mg/kg) | ADFA RESOLUE (mgra.s. equiv./kg) | The Art of the Art of | Total BYI Oroga Residue (mg a.s. Oquiv./kg) b |
| | rain/Foliar Appl | | | | * «/ n | 2 | <u> </u> | \$0.010 [©] | \ | | |
| RV034- 10HA | , ON, Region 5, 2010 | TRTSG | 20T16 | Grain | 0.362 (0,405) | 8 3 0 | | <0.000 | <0.050 & & | <0.010 \$0.010 | 0.07 0.07 Avg: <0.07 |
| RV035- 10HA | , KS, Region 5, 2010 | TRTSG | Pi@eer 22B34 | Grain G | 0,371 (0.416) | | 21 | <0.016 <0.016 <0.010 | <0,000 <0.050 0.050 | <0.010 ★0.010 | <0.07 <0.07 Avg: <0.07 |
| RV040- 10HA | , TX, Region 6, 2010 | TRTSG | Dyna-Gro H6284162 | 1 4 1 | 0.377 | 8 9 | 20° | 0.010 0.010 0.010 | <0.0 9 0 <0.050 | <0.010 <0.010 | <0.07 <0.07 Avg: <0.07 |
| RV036- 10DA | Region 5 | TRT | \$5R08 \$3000\$3 | | 9.376 19.421) | | 105 | <0.010 <0.010 <0.010 <0.010 | <0.050 <0.050 <0.050 <0.050 | <0.010 <0.010 <0.010 <0.010 | <0.07 <0.07 Avg: <0.07 <0.07 <0.07 Avg: |
| £ | | | | | | \$\frac{1}{8}\frac{1}{8}\frac{1}{2} | 22 | <0.010 <0.010 | <0.050 <0.050 | <0.010 <0.010 | <0.07 <0.07 <0.07 Avg: <0.07 |
| | | | | | | 84 | 28 | <0.010 <0.010 | <0.050 <0.050 | | <0.07 <0.07 Avg: <0.07 |
| Y | | | | | | 85 | 34 | <0.010 <0.010 | <0.050 <0.050 | <0.010 <0.010 | <0.07 <0.07 Avg: <0.07 |
| | | | | | | | | Con | tinued or | n next pa | ge |

Table 6.3.2.15-8 (cont'd): Total BYI 02960 Residue Data from Field and Sweet Corn after a Seed Treatment Application with BYI 02960 480 FS or Two Foliar Applications of BYI 02960 200 SL

| | | | 110290020 | | | | | | | | |
|---|---|-----------|--------------|-----------|--------------------------------------|----------------|-------------------|--|--|--|---|
| Trial Identification | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | Total Rake Lb a.s./A (kg a.s./ha) | % Dry Matter a | Sampling Interval | BYI 02960 PResidue (mg/kg) | DFA Residue (mg a.s. equiv./kg) | DFEAFRESidue | 102960 quiv9kg |
| L . | rain/Foliar Appl | | ield Corn | <u>~~</u> | | <u>~</u> " | | | | | Ĭ |
| RV037- 10DA | Region 5, 2010 | TRTSG | | | , w | 72 , | 914 014 | <u></u> | <0.050 <0.050 <0.050 <0.050 <0.050 | <0.010 <0.010 <0.000 <0.000 <0.010 | <0.07 0.07 0.07 0.07 <0.07 <0.07 Avg: <0.07 |
| | | | | | | 77. 0 | 27 0 | 0.010 0.010 0.010 0.010 0.010 0.010 | <0.030 | <0.010 <0.010 <0.010 <0.010 <0.010 <0.010 | <0.07 <0.07 Avg: <0.07 <0.07 <0.07 Avg: <0.07 <0.07 Avg: <0.07 Avg: <0.07 |
| RV038- 10DA | NE, Region 3, 2010 3 | TRTS | N38B4 | Grain | 0.362 | 84 | 13 | <0.010 <0.010 <0.010 0.010 | <0.050 <0.050 <0.050 <0.050 <0.050 | <0.010 <0.010 <0.010 <0.010 | <0.07 <0.07 Avg: <0.07 <0.07 0.07 Avg: |
| N. S. S. S. S. S. S. S. S. S. S. S. S. S. | | | | | | 85 85 | 19 | <0.010 <0.010 <0.010 <0.010 | <0.050 <0.050 <0.050 <0.050 | <0.010 <0.010 <0.010 <0.010 | 0.07 <0.07 <0.07 Avg: <0.07 <0.07 |
| | | | Y Ş | | | 84 | 33 | <0.010 <0.010 <0.010 | <0.050 <0.050 | <0.010 <0.010 <0.010 | <pre><0.07 Avg: <0.07 <0.07 <0.07 Avg: <0.07 Avg: <0.07</pre> |

Table 6.3.2.15-8 (cont'd): Total BYI 02960 Residue Data from Field and Sweet Corn after a Seed Treatment Application with BYI 02960 480 FS or Two Foliar Applications of BYI 02960 200 SL

| | | OI D | 110290020 | JO SL | | | | | | 2 | <u>v</u> |
|----------------------|--|-----------|----------------------|-----------|---------------------------------------|--|---------------------------------|--|--|--|---|
| Trial Identification | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | Total Rate, Lb a.s./A (kg a.s./ha) | ∠ Dry Matter a | sampling Interval © (days)®. | BYI 02960 D Residue (mg/kg) | DFA Residue (mg a.s. equiv./kg) | DFEAFRESidue & Chagas. equisake | (mg Os. equivakg) b |
| | am/ronar Appi | 1 | | V V | b 0 2 C S | %′ ₹ 70 | | <i>──</i> | 0.050 | × 0 010 | , ^v |
| RV039- 10DA | MN, Region 5, 2010 | N | Dekalb 38-89 | | | 70 70 70 70 70 70 70 70 70 70 70 70 70 7 | 28 | 0.010 0.010 0.010 0.010 0.010 0.010 0.010 0.010 | \$\frac{1}{\infty} \frac{1}{\infty} 0.056 \frac{1}{\infty} < 0.080 | <0.010 <0.010 <0.010 <0.010 <0.010 <0.010 <0.010 <0.010 | <pre><0.07</pre> |
| Corn G | rain/Seed Treat | nent/Fiel | d Corn | ~~~ | Z, | (O | , | | | | |
| RV023- 10HA | Region S, | TRUST | OHYBKO OHOEK | Grafin S | (0.116) (0.119) | \$79 | ЕСН | <0.010 <0.010 | 0.118 0.105 | <0.010 <0.010 | 0.14 0.13 Avg: 0.13 |
| RV024- 10HA | Region 5, 2010 | | OWYBKJI OHOFR | | ©0.048 ((0.054) | 78 | ЕСН | <0.010 <0.010 | 0.055 0.089 | <0.010 <0.010 | 0.08 0.11 Avg: 0.09 |
| RV027- 10HA | Region 5, 2040 | TRIST | A 09H VO 1 05HOER | Grain | 0.105 (0.118) | 85 | ECH | <0.010 <0.010 | 0.174 0.168 | <0.010 <0.010 | 0.19 ^f 0.19 ^f Avg: 0.19 ^g |
| Ž, | Region 5, 2040 | | | | | | | Con | tinued oi | n next pa _z | ge |

Table 6.3.2.15-8 (cont'd): Total BYI 02960 Residue Data from Field and Sweet Corn after a Seed Treatment Application with BYI 02960 480 FS or Two Foliar Applications of BYI 02960 200 SL

| | | 01.5 | 110290020 | | | | | | | | |
|----------------------|---|----------------|---------------------------------------|-----------------|--------------------------------------|---------------------------------------|-------------------|----------------------------|------------------------------------|----------------------------|---|
| Trial Identification | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | Total Rate Lb a.s./A (kg a.s./ha) | % Dry Matter a | Sampling Interval | BYI 02960 PResidue (mg/kg) | DFA Residue Amg a.s. equiv./kg) | | Total BYPD2960 Residue (mg Os. equivAkg) b |
| Corn K- | +CWHR/Foliar | Applicati | on/Sweet Co | orn 🔊 | 0 . | 0° | `~\ | <i>\(\text{O}\)</i> | | | |
| RV041- | 2 | TRTF | Extra- | K#@WHB | 0.371 | "NA, | 5 6 | Ø <u>.</u> 017 4 | ©0.209 [®] | <0.010 | 0.24 |
| 10HA | PA, | | Tender | | (0.406) | Q, | | \$0.019° | 0.235 | <0.010 <0.010 <0.010 | 0.27 ^h |
| | Region 1, | | Ş | | | ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ | A | Ő | | | ⊘ Avg: 0.25 ⁱ |
| RV043- | 2010 , GA, | TRTF | Bi-color | K+CWHR | 0.370 | NĄ, | 07 | 0.010 | \$0.14 3 | <0.000 | 0.25 |
| 10HA | Region 2, | TIXII | DI COMO | | (0;4Q25) | | , | 0.010 | 0.0 | < 0.010 | 0.10 |
| | 2010 | | L C | | `&' ' | | | | \$\tilde{s}\tilde{s}\tilde{.} | Z, | Avg: |
| | | | 4 6 | | Ď |) | O | <u> </u> | | 7 | 0.13 |
| RV044- | | TRTF | Obsession | KPCWHR | 0.364 (0.405) | NAC | 7 | Ø.010€ | 0.109 | < 0.010 | 0.13 |
| 10HA | FL, | W [*] | \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | | (0.405) | NAC S | | <0.010 | 0.194 | < 0.010 | 0.13 |
| | Region 3, 2010 | , Ø | | | - | | | | | | Avg: 0.13 |
| RV045- | . IA. a | TRTF | Augusta | K CWHA | 0.368 | NA | 7 | ₹0.0106 | 0.106 | < 0.010 | 0.13 |
| 10HA | Region 5, | | | | (0.412) | 0 | _^> | ~0.010 ~ <0.010 | 0.118 | < 0.010 | 0.14 |
| | 2010 | A. | | | | <i>?</i> | 0 | ~ | | | Avg: |
| | | O _A | | | | 0 | ¥ | | | | 0.13 |
| RV046- | | NTRTF" | XTRA- | K+CWHIR | 0.363 | NA | 1 7 ≰ | 0.010 | 0.167 | <0.010 | 0.19 |
| 10HA | IL, Region 5 | | tender & 274A | | (0 407) | 0 | % | < 0.010 | 0.167 | <0.010 | 0.19 Avg: |
| | 2010 | % n % | 5 2147 | |)* @) | . 4 | 7 | | | | 0.19 |
| RV047- | | TRTA | Brocade | K+CWFR | 0.364 | NA | 7 | < 0.010 | 0.089 | < 0.010 | 0.11 |
| 10HA [≪] | ON, | | ∢ŢSW ≲ [©] | | (0.408) | | | < 0.010 | 0.088 | < 0.010 | 0.11 |
| | Region 5 | ~ | | | | 7) | | | | | Avg: |
| D17040 | 201 % | D TD TA | | M. CHARD | O S | DT A | 7 | 0.047 | 0.120 | <0.010 | 0.11 |
| RV048- 10HA | , NEÔ | ∜ ŤRŢ₽ | Avigusta | K+CWHR | 0 369 | NA | 7 | 0.047 0.028 | 0.138 0.083 | <0.010 <0.010 | 0.20 0.12 |
| 1011/4 | Region 5, © | | | | (0.414) | | | 0.020 | 0.003 | ~0.010 | Avg: |
| | | | | | | | | | | | 0.16 |
| RV050- | , SK | TRTF | Jackpot (| K+CWHR | 0.367 | NA | 7 | < 0.010 | < 0.050 | < 0.010 | < 0.07 |
| 10НА√ | Region 🥾 | | , ø' _Ø' | | (0.412) | | | < 0.010 | < 0.050 | < 0.010 | < 0.07 |
| | 2010 | | | "O _x | | | | | | | Avg: |
| RV051- | , CAA | TRA | © Ødden | K+CWHR | 0.370 | NA | 5 | < 0.010 | < 0.050 | < 0.010 | <0.07 <0.07 |
| 10HA | Region 10 | INST | Queen | K⊤CWΠK | (0.415) | INA |) | < 0.010 | <0.050 | <0.010 | <0.07 |
| | Region 10 2010 | | | | (0.110) | | | 0.010 | 3.050 | 3.010 | Avg: |
| A | ~ | | y ⁻ | | | | | | | | < 0.07 |
| RV0524 |) IDA | TRIF | Jackpot | K+CWHR | 0.371 | NA | 7 | < 0.010 | < 0.050 | < 0.010 | < 0.07 |
| 10H2 | Region 1 | | | | (0.415) | | | < 0.010 | < 0.050 | < 0.010 | < 0.07 |
| | 2010 | 3 | | | | | | | | | Avg: |
| | , 🗡 | | | | | | | | | | < 0.07 |

Table 6.3.2.15-8 (cont'd): Total BYI 02960 Residue Data from Field and Sweet Corn after a Seed Treatment Application with BYI 02960 480 FS or Two Foliar Applications of BYI 02960 200 SL

| | of B | YI 02960 20 | 00 SL | | | | | <u>e</u> | © ° |
|--|-----------------|--------------|-----------|-------------------------------------|----------------|----------------------------|------------------------------------|--------------------------------------|--|
| Trial Identification Location (City, State, Region, and Year) | | Crop Variety | Commodity | Total Rak Lb a.s./A (kg a.s./ha) | % Dry Matter a | Gdays Sold BYI 02960 CA | DFA Residue Amg a.s. equiv./kg) | DFEAFREsidue & (mga.s. equisikg) | Agtal BY Kaz960 (mg @s. equiv Rg |
| | oliar Applicati | • | 7. 3 | | | | | | |
| RV053- 10HA Region 2010 | OR, TRTF | Serendipity | KF@WHR | (0.409) | NA, | 4 5 | 0.051 | <0.010 <0.010 <0.010 | 0.07 0:08 Avg: 0.08 |
| RV042- 10DA NY, Region 2010 | 1, | Serend Wity | K+CWHR | • | | 3 9.016° 3 0.017 | 0.128 | <0.000 <0.010 <0.010 <0.010 | 0.11 0.11 Avg: 0.11 0.15 0.16 |
| | | | | | NØ. | 7 0.030 0.023 | 0.141 0.148 | <0.010 <0.010 | Avg 0.15 0.18 0.18 Avg 0.18 |
| | | | | | | 0.017 0.020 21 0.016 | 0.187 0.168 | <0.010 <0.010 | 0.21 0.20 Avg 0.21 0.23 |
| <u> </u> | | | | (, _2 | | 0.010 | 0.159 | <0.010 n next pa | 0.18 Avg: 0.21 |
| | | | | | | | | | · · · · |

Table 6.3.2.15-8 (cont'd): Total BYI 02960 Residue Data from Field and Sweet Corn after a Seed Treatment Application with BYI 02960 480 FS or Two Foliar Applications of BYI 02960 200 SL

| | of BYI 02960 | 0 200 SL | | | | | © 7 |
|--|------------------------|-----------|-----------------------------------|--|---|--|--|
| Trial Identification Location (City, State, Region, and Year) | Plot Name Crop Variety | Commodity | Total Rate Lb a.s./A (kg a.s./ha) | Sampling Interval (days) & BYI 02960 | DFA Residue (mg a.s. equiv./kg) | DFEAFERSIGUE (Mga.s. equisikg) | (mg ans. equivage) |
| Corn K+CWHR/Folis RV049- 10DA Region 5, 2010 | TRTF Xtra-Tende 278A | K-EWHRS | | 7 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 0.01 | 2 0.051 9 0.054 4 0.107 4 0.107 7 0.192 4 0.167 10 0.232 7 0.247 | <0.010 <0.000 <0.010 <0.010 <0.010 <0.010 <0.010 | 0.08 0.09 0.08 0.12 0.12 0.12 0.22 0.19 Avg: 0.21 0.25 0.26 0.26 0.26 0.26 0.26 |

Total BYI 02960 Residue Data from Field and Sweet Corn after a Seed Table 6.3.2.15-8 (cont'd): Treatment Application with BYI 02960 480 FS or Two Foliar Applications of BYI 02960 200 SL

| Trial Identification | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | Total Rate Lb a.s./A (kg a.s./ha) | % Dry Matter a | Sampling Interval | BYI 02960 Exp. Residue (mg/kg) | DFA Residue Amg a.s. equiv./kg) | DFEAFRESidue (mga.s. equisikg) | (mg Os. equivakg) |
|----------------------|---|-----------|---------------------------------------|--------------------|--------------------------------------|--|-------------------|--|---|--------------------------------|------------------------------------|
| Corn K- | +CWHR/Seed T | reatment | /Sweet Corr | | 4 | W | .*\ | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ | | | Ž, |
| RV041- 10HA | PA, | TRTST | Extra- Tender | K-CWHR | 0.102 | NA, | ЕСН | \$9.010 \$0.010 | ©0.109 [®] | <0.010 <0.010 <0.010 | 0.13 e0:12 |
| | Region 1, 2010 | | | | | \Q } | 4 | | | | Ävg: 7 0.13 ^k |
| RV045- | , IA, | TRTST | Augusta | K+CWHR | 0.083 | NA | ₽ČH | ≈ Ø.010∂ | 0.060 | <0.000 | 0.08 |
| 10HA | Region 5, | | | | (0,0)3) | ~ ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ | | €<0.01 © | 0.00 | < 0.010 | 0.09 |
| | 2010 | | | , b |)) | | | | | * | Avg: 0.08 |
| RV048- | , NE, | TRTST | D Augusta | K [©] CWH | 0.07 % (0.085) | NAC | ĚСН | 9.012° | 0.099 | < 0.010 | 0.12 |
| 10HA | Region 5, | | \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | | | | | 0.013 | 0.148 | < 0.010 | 0.14 ^j |
| | 2010 | ~ © | Ö | | | , | | | \$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | | Avg: 0.13 ^k |

- Sampling interval is the interval between the last application and the sampling date
- Total BYI 02960 residue is the sum of BYI 02960, DFA and DFEAF residue in parent equivalents. Residue measurements below the analyte LOO were swimmed into the total BYI 02960 residue value as the analyte LOO value. These totals represent the upper limit of what the residue levers might be.
- NA = Not applicable. Dry matter was not determined for the K+CWHR matrix.
- Maximum residue formid in freed corn grain receiving a Goodcast foliar spray application of BYI 02960 200 SL.
- HAFT residue found in field corn grain recepting a troadcast foliar spray application of BYI 02960 200 SL.
- Maximum residue found in field form grant following the punting of seed treated with BYI 02960 480 FS. f
- HAFT residue found in field court grain following the planting of seed treated with BYI 02960 480 FS.
- Maximum residue found in sweet cost K+CWHR receiving a broadcast foliar spray application of BYI 02960 200 SL. HAFT residue found in sweet correct CWHR receiving a broadcast foliar spray application of BYI 02960 200 SL.
- Maximum residue four of an sweet corn KCWHR following the proving of seed treated with BYI 02960 480 FS.
- k HAFT residue found for sweet forn K-CWHR for lowing the planting of seed treated with BYI 02960 480 FS.

ECH = Earliest commercial harvest

- TRTF = Treated plot receiving two foliar applications of 102960 200 SL for the collection of K+CWHR samples from sweet corn trans at a target PHL of 7 days.
- TRTSO = Treated plot receiving two toliar applications of BYI 02960 200 SL for the collection of grain samples from field corn trials at a target PHIOT 21 dags
- C+CWHR = kernels thus cobe ear) with husks removed TRTST = Seed treatment trials for the collection of grain samples from field corn trials and K+CWHR samples from sweet



Conclusion

Thirty-three field trials were conducted to measure the magnitude of total BYI 02960 residues in/on ocorn matrices following two foliar spray applications of BYI 02960 200 SL. Six of these field trials also included plots to measure the magnitude of BYI 02960 residues in these same matrices following the planting of seed treated with BYI 02960 480 FS.

The total BYI 02960 residue data for corn following seed treatment or foliar application are summarized in Table 6.3.2.15-9.

Table 6.3.2.15-9: Summary of Residue Data for Total BYI 02960 from Corn following Police Applications of BYI 02960 200 SL or Seed Treatment with BYI 02960 480 FS

| | | _ | Total BYI 02960 Residue Levels (ppm) | |
|---------------|------------------------|--|--|-----------------------|
| Commodity | Plot Name ¹ | Total Application Rate Ib a.s/ (kg a.s./ha) | PHI (days) Nim at Nim a | Štandard Deviation |
| Foliar Applic | cation/Fi | @ V | | |
| Grain | TRTSG | 0.359 to 0.377 (0.403 to (423)) | $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | 0.023 |
| Foliar Applic | cation/Sw | veet Corn 🖔 | | |
| K+CWHR | TRTF | 0.361 to 0.374 (0,405 to 0.419) | $\begin{array}{c ccccccccccccccccccccccccccccccccccc$ | 0.058 |
| Seed Treatm | ent/Field | ´ | | |
| Grain | TRÆST | 0.048 to 0.1106 0.054 to 0.119% | | 0.042 |
| Seed Treatm | ent/Swe | T Corn | | |
| K+CWI | TRTST | 0.076 to 1.102 6.085 to 0.115) | ECH 3 0.08 0.14 NA ⁵ 0.13 0.12 0.11 | 0.022 |

- TRTF = Treated proceeding two topiar applications of BYL 22960 200 SL for collection of K+CWHR samples from sweet corn trials and targed PHI of Cday
 - TRTSG = Treated plot receiving two foliar applications of BYI 02950 200 SL for the collection of grain samples from field corn trials at a target PHH of 21 days
 - TRTST = Seed treatment trons with VI 02000 48000 for collection of grain (field corn) and K+CWHR (sweet corn) samples of the control of the control of the corn of
- 3 calculated on the basis of regardie values at the HI
- 4 Sampling day showing highest residue
- 5 Not applicable. Ince no decline that's were conducted after seed treetment

ECH = Earliest commercial harvest

K+CWHR Sernels ous cob ear) with husks removed

Total BYI 02960 residues for grains from field corn plots receiving two foliar sprays were generally below the LOQ at the PHI of 21 days; only one of the twenty trials showed residues amounting to 0.21 mg/kg in maximum. The decline trials indicated that total residues do not increase at sampling intervals after the PHI of 21 days.

Total BYI 02960 residues in kernels plus cob with husk removed (K+CWHR samples) from sweet corn plots receiving two foliar sprays were generally higher; ten of thirteen trials showed residues at the intended PHI of 7 days. The maximum residue at the PHI amounted to 0.27 mg/kg. Decline trans indicated that the residues did not always peak at the PHI, however the residue levels suggest that a

residue plateau was reached around

0.27 mg/kg.

Total BYI 02960 residues in grains (field corn) and in K+CWHR (sweet corn) after seed treatment of the same residues at harvest. The highest residue was detected in grains of field corn, Considering the results of all trials it becomes obvious that the use pattern with the two foliar spray applications in sweet corn is most critical in respect to possible residues on food items.

The residue data provided for field and sweet corn.

applications in sweet corn is most critical in respect to possible residues on food froms.

The residue data provided for field and sweet corn are suntable for regulators purposes.



IIA 6.3.2.16 Cereals - sorghum

Residue data from **NORTH AMERICA**

BYI 02960 is to be registered in USA and Canada for use as a foliar treatment in on cereal grains, except rice (crop group 15). Representative crops tested were barley, field and sweet corn, sorghum and wheat. The use pattern for sorghum in North America is summarized in Table 6.3.2.16-1.

A total of nine field trials were conducted in sorghum. The studies are described below.

Table 6.3.2.16-1a: Target Use Pattern for the Application of BYIQ2960 on Sorghum (to gain Grains)

| | | | | Target | - Ø : Rate/Appli | cation | | | | | Sp Vol | ray ume |
|-------------|-----------|--------|------|---------------------|---------------------|--------|------------|----------|-------------|----------------|-----------|------------|
| | | | | ulated ict (FP)∡ | 0. 2 | | | | ેં Targe | Adjusant | Ž. | |
| Application | Test | No. of | | | Name of ~ | Jlb ? | y kg إُرُّ | Intercal | PHI | /Additive | Ø | |
| | | | | | | | | | | | | |
| Type | Substance | Apps | mL/A | fl øz/A | "°≽⁄a.s. "© | a.s./A | a.s./ma | (Days) | (Days) | % (%) & | GPA | LPHA |

In parallel, three residue trials were conducted with BYI 0260 480FS following a seed treatment application. The seed treatment rates for the cereal grain crops are presented below and in the respective summaries.

Table 6.3.2.16-1b: Target Use Pattern for the Application of BY 02960 on Sorghum (to gain Grains)

| | | | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ | & Targe | Rate/Appli | ication | | Z | | | | ray ume |
|-------------------|---|--------|--|----------------|-----------------|---------|-------------|-----------------|------------------|-----------------|-----------------|-----------------|
| | Target kate/Application Formulated Product (FP) Active Substance (a.s.) Target May By 102960 4 520 3 By 102960 0 250 250 NA 3 ECH 3 NA 3 NA 3 | | | | | | | | | | | |
| 9% | <i>Q</i>) ∤ _ | ~ | mU | (II) | | lb a.V/ | kg_a.s./ | App. | Target | Adjuvant | | |
| Application | Test | No. of | 1400 kg | ©z /100 | Name of | 1001b | 1#W kg | Interval | PHI | /Additive | | |
| Type | Substance | `Appş⊁ | ∛seed∡ | ∫lb seed√ | ans. | seed | Seed | (Days) | (Days) | (%) | GPA | LPHA |
| Seed treatment | BYI 029€0 200 <i>©</i> L | | 520 | | B 9 0296 | 0.250 | 250 | NA ³ | ECH ³ | NA ³ | NA ³ | NA ³ |

- 1 NA = Not applicable
- 2 ECH = Earliest commercial parvest

| Report: | KATA 6.3.2.16701 ; and K. A. ; 2012 |
|-------------|--|
| Title. | BYI 02960 200 SL and BYI 02960 480 FS - Magnitude of the Residue in/on Sorghum |
| Report No & | RARVY004, dated March 14, 2012 |
| Document No | M-42704-01-2 |
| Guidelines: | JS: EPA Residue Chemistry Test Guidelines OPPTS 860.1500, Crop Field Trials |
| | Canada: PMRA DACO 7.4.1, Supervised Residue Trial Study |
| | RA DACO 7.4.2, Residue Decline |
| | OECD: Guidelines for the Testing of Chemicals, 509, Crop Field Trial, |
| | Adopted Sept. 7, 2009. |
| GLP | Yes |

Nine field trials were conducted to measure the magnitude of BYI 02960 residues in/on sorghum forage, sorghum grain and sorghum stover following two broadcast foliar spray applications of

BYI 02960 200 SL. Three for these field trials also included plots to measure the magnitude of BYI 02960 residues in these same matricies following the planting of seed treated with BYI 02960 480 FS. Since sorghum forage and stover (as feed items) are not imported into Europe, this dossign will focus on sorghum grain, only. Complete information on the study, including the data on the feed items, has been submitted in the Global Joint Review Submission in October 2002.

BYI 02960 200 SL is a soluble concentrate formulation containing 200 g BYI 02960/L and BY 480 FS is a flowable concentrate containing 480 g BYI 02960/L. The number and location of field trials conform to the guidance given by the EPA (Table 6.3.2.16-2).

Table 6.3.2.16-2:

| trials conform to the guidance give | ven by the EPA (Table | 6°.3.2.16-2). | | |
|--|---|-------------------------|------------------|--------|
| | | | | |
| Table 6.3.2.16-2: Trial Nur | wen by the EPA (Table mbers and Geographica | al Locations for RXI 02 | 960 in/gh/Sorghu | im 🖐 |
| NAFTA Growing Region | Submitted a | l. (2) 🖎 🙈 | | |
| 1 | Submitted a | « Requested O | | » _& ° |
| 1A | | | | |
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| 5B | | | Š | |
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| 9 0 5 | | | | |
| 10 0 10 10 10 10 10 10 10 10 10 10 10 10 | | | | |
| 16 7 | | O Q | | |
| | | 2 | | |
| 13 | | | | |
| 14 | | | | |
| Total Total | | 9 | | |
| | | | | |

One of the nine trials was a decline trial (the in Region 5). The total number of trials meets the required number of trials

Material and Methods

Individual foliar spray application rates ranged from 0.181 to 0.193 lb BYI 02960/A/application (0.202 0.216 kg BYI 02960/ha/application). Seasonal application rates ranged from 0.362 to 0.382 lb BYI 02960/A (0.406 to 0.428 kg BYI 02960/ha). All applications were made at growth stages ranging from BBCH 55 to 87 (BBCH 55: half of inflorescence emerged; BBCH 87: fruit begins

to soften). The interval between the applications was 5 to 7 days. All applications were made using ground-based equipment. An adjuvant (Dyne-Amic) was used in all of the foliar applications at 0.25% (v/v).

For plots receiving treated seed, application rates ranged from 0.012 to 0.024 lb YI 02960/A@0.0146 to 0.026 kg BYI 02960/ha).

6-3 Study use Trial Site conditions, including soil characteristics are summarized in Table 6.3.2.16 patterns are summarized in Table 6.3.2.16-4.

Trial Site Conditions for BYI \$2960 on Sorghum Table 6.3.2.16-3:

| C4 - l- I 4' | m.t.l | Soil Characteristics Mereorological Datab |
|---------------------------------|-----------------|--|
| Study Location (City, State) | Trial Number | Type % ph CEO Rainfall (n) Range F) |
| , AR | RV083-10HA | Clay 7.1 (6.3 (17.4) 8.54 (6.5 96 |
| , KS | RV084-10HA | Silt Lowm 3 2 7.2 19.2 88.84 5 34 - 92 |
| , MO | RV085-10HA | Sil@oam 7 1.8 2# 89 2.65 57 - 100 |
| , NE | RV086-10DA | Filt Loads \$2.2 7.3 \$10.5 763 56 - 86 |
| , TX | RV087-101A | Claydoam 2.1 8 1 40% 12.69 58 - 103 |
| TX | RV08890HA | Qay Loam 1 7.8 18 128 77 - 93 |
| NE | R\$089-10HA | Sill Loam 27 6.8 17.1 39 - 81 |
| , TX | RVQQ-10HA | Sandy Clay Loam 0.81 7.9 12.84 10.14 48 - 94 |
| , TX O | R 9091-19HA | Cay 50.4 6.33 73 - 102 |

Abbreviations used: %OM = percent organic matter CEC = coron exchange capacity.

e Pattern for BYI 02960 200 SL and BYI 02960 480 FS on Sorghum

| | | | 1 2 | . O | 7 | | | | | |
|----------------------|----------------------|--|----------------------|---------------------|----------------------------|-----------------------------------|--------------------------------|-----------------------------|--------------------------------------|-------------------------------|
| Trial Identification | Location City, State | End-use Broduce Control of Communication | Applica Plot Name | Method | Timing/Growth Stage (BBCH) | Actual Spray Volume GPA (L/ha) | Rate lb a.s./A (kg a.s./ha) | Retreatment Interval (days) | Total Rate 1b a.s./A (kg a.s./ha) | Tank Mix Adjuvants |
| RV083- 10HA | , AR Region 4 2010 | B T T 2960 SL 200 | ΓRTSG | Broadcast foliar | BBCH 85 | 10 (96) | 0.185 (0.208) | NA | 0.369 (0.414) | Dyne- Amic 0.25% v/v |
| Č | | | | | BBCH 85 | 10 (95) | 0.184 (0.206) | 7 | | Dyne- Amic 0.25% v/v |

Data is for the interval of the mouth of first application through the month of hast sampling. Meteorological data were

| | ır) | | Applica | tion | | | | | | |
|----------------------|--|----------------------------------|-----------|--------|----------------------------|---------------------|-------------|-----------------------------------|----------------|-------------------|
| Trial Identification | Location (City, State, NAFTA Region, and Year | End-use Product (Formulation) | Plot Name | Method | Timing/Growth Stage (BBCH) | Actual Spray Volume | Rate lb & A | Refrestment Interval (daysk) | Total Total | ank Mix Adjuvants |
| | | | | × | | L.Q. | @ | Ž Š | | ~~~ |

Table 6.3.2.16-4 (cont'd): Study Use Pattern for BYI 02960 200 SL and BYI 02960 480 F8 on Sorghum

| | 5 | | Applica | ition 0 | | | - ' | Ô | | |
|----------------------|---|---|--|---|---------------------|--------------------------------------|---------------------|-----------------------------|-------------------------------------|-------------------------------|
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | WeName Of The Control of the Control | OF LO LAZA Acthobal Collaboration Collaborat | Timing/Gbowth Stage | Actival Spracy olume Copy (GPA/L/hg) | Rate lb a.s./A Ving | Retreatment Interval (days) | Total Rate lb a.s. And (kg a.s./ha) | Tank Mix Adjuvants |
| RV084- 10HA | , KS Region 5 2010 | BY4 02960 SL 200 | TŘTSC | F Broadcast folder | BBCH 85 0 | 16 (149) | 0.185 (0:207) | NA | 0.370 (0.415) | Dyne- Amic 0.25% v/v |
| | | | | | BBCN 850 | 16 (\$\frac{1}{3}\) | 0.186 (0.208) | 5 | | Dyne- Amic 0.25% v/v |
| RV084- 10HA | Region 2010 | \$BYI 029 6 0 40 0 FS | TROST | Seed Treatment | BBCH | NA | 0.024 (0.026) | NA | 0.024 (0.026) | NA |
| RV085- 10HA | Region 5 2010 | BY 02560 SL 200 | ESTSG & | Broadcast foliar | BBCH 75 | 20 (188) | 0.183 (0.205) | NA | 0.364 (0.408) | Dyne- Amic 0.25% v/v |
| | | | | V | BBCH 85 | 20 (184) | 0.181 (0.202) | 7 | | Dyne- Amic 0.25% v/v |
| RV0867 10D | A Region 5 | 19YI 202960 SL 200 | TRTSG | Broadcast foliar | BBCH 87 | 20 (184) | 0.182 (0.204) | NA | 0.363 (0.407) | Dyne- Amic 0.25% v/v |
| | | | | | BBCH 87 | 19 (174) | 0.181 (0.203) | 6 | | Dyne- Amic |

| | E) | | Applica | tion | | | | | | |
|----------------------|---|----------------------------------|-----------|-----------|----------------------------|-----------------------|---------------------------|--------------------|-----------------------------------|----------------|
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | A 70 | Timing/Growth Stage (BBCH) | Actual Spray Volume | Rate lb & DA (kg a.s./ha) | Represent Interval | Torsky Rate 1828, A Kg a.s. Ma | Ç© ¶ank Mix |
| | | | | Broadcast | | , P | 4 | | | Ø25% V/V |
| RV087- | , TX | BYI | TRTSG | Broadcast | BBCH© |) [*] 20 🔊 ° | 0.182 (0.204) \ | ŊA | © .364 | Dyne- |
| 10HA | Region 6 2010 | 02960 | | foliar | 85 | (186) | (0.204) | 0 . | (0.408) | Amic |
| | | SL 200 | (| k. Ö | ~~~ | | | | | 0.25% |
| | | | Č |) | | | | | 4 | v/v |
| | | | 4 | . ~~ ~ @ | BBCR | 17 | . Ø≥183 | ر 7 `©ا | | Dyne- |
| | | | | | 850 | (T00) a | Ø.205 € | | | Amic |
| | | | | y' Q' | | p″ "(| | | O | 0.25% |
| | | (| | folder | BBCHC 85 BBCHC 85 | | 0 183 0 .205× | | (\$) | v/v |

Table 6.3.2.16-4 (cont'd): Study Use Pattern for BYI 02960 200 SL and BYI 02960 480 FS on

| | r) | | 🖏 Appl@a | tion | O' & | | , O)' | | | |
|----------------------|------------------------|------------------|---------------------------------------|---------------------|-------------------|-------------------------------------|-----------------------------|-----------------------------|--------------------------------------|----------------------|
| Trial Identification | Location (City, State, | oduck on) | Port Name (2) | Method | Timing/ (BBCH) | る Actual Spr級 Volume O (GPA (L/ha) | Rate lb a.s./A (kg a.s./ha) | Retreatment Interval (days) | Total Rate lb a.s./A (kg a.s./ha) | Tank Mix Adjuvants |
| RV087- | , TX | BXV | TRTST_ | Deed U | ₿ВСН | NA | 0.012 | NA | 0.012 | NA |
| 10HA | Region 6 20 Q | 02\$60 400 FS | | Treament | 00 | | (0.014) | | (0.014) | |
| RV088- | | BY 5 02960 | JATTS G | Broadcast | BBCH | 10 | 0.188 | NA | 0.375 | Dyne- |
| 10HA & | , TX Region 6, 9710 | 02960 SL 200 | | Broadcast foliar | 85 | (96) | (0.211) | | (0.420) | Amic 0.25% v/v |
| | | | | | ВВСН | 10 | 0.186 | 7 | | Dyne- |
| | | | (Q) | | 85 | (95) | (0.209) | | | Amic |
| | | 5 | ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ | | | | | | | 0.25% v/v |
| RV089- | , | ABY I | TRTSG | Broadcast | BBCH 85 | 20 | 0.183 | NA | 0.367 | Dyne- |
| 10HA, | Ne Region 7 | Ø2960 SL 200 | | foliar | 0.3 | (188) | (0.206) | | (0.412) | Amic 0.25% |
| | A | SE 200 | | | | | | | | v/v |
| | | | | | ВВСН | 20 | 0.184 | 7 | | Dyne- |
| | | | | | 85 | (191) | (0.206) | | | Amic |
| | | | | | | | | | | 0.25% |

| | ır) | | Applica | tion | | | | | | |
|----------------------|---|----------------------------------|-----------|-----------------|----------------------------|---------------------|-------------------------------|----------------------|--------------------|--------------------|
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Method | Timing/Growth Stage (BBCH) | Actual Spray Volume | Rate Ib 8.87A (kg a.s./ha) | Represament Interval | Torn Rate 1825, A | Sank Mix Adjuvants |
| RV090- 10HA | , TX Region 8 2010 | BYI 02960 SL 200 | TRTSG | Broad St foliat | BBCHO | 20 % | | | 0370 (0:415) | |
| RV090- 10HA | , TX Region 8 2010 | BYI 02960 400&S | TRT®Ť | Seed Sreatment | BBCH 085 | | 0.0200 | NA & | © 0.018 (0.020) | NA |

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Table 6.3.2.16-4 (cont'd): Study Use Pattern for BYI 02960 200 SL and BYI 02960 480 FS on Sorghum

| | | | A 1' | 4: | | | | | | |
|----------------------|---|----------------------------------|-----------|---------------------|--------------|-----------------------------------|--------------------|----------------------|---|--------|
| | ar. | | Applica | tion | 1 | 1 | ı | | ~ | |
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Method | Jimii BBC | Actual Spray Volume GPA (Lina) | Rate lb a.s./A 220 | Retreatment Interval | Total Rate Brass/A Principal (kg asana) | Adju |
| RV091- | , TX | BYI | TRTSG | Broadeast | BBCH | 19 👰 | 0.0181 | ấMA | 0 362 | Dyne- |
| 10HA | Region 8 2010 | 02960 | | Broadeast folkar | 85 | (181) | (0.203) | | (0.406) | Amic |
| | | SL | | L Q° | . D | , V | | | W [*] | 0.25% |
| | | 200 | | Broadeast forear | | 19 0 (181) | (0.203) | 0 , | | , v/v |
| | | | | | BECH | 19, | Ø.181 _€ | | | Dyne- |
| | | | | ~" | .84 | O(179) | (0.20 35) | | | Amic |
| | | | | | | | | Ü | r Ta | 0.2370 |
| | | Ó | Ç Oʻ | | BBCH 84 | | 0.181 7(0.2035) | | I T | v/v |
| | l | · ** | <u> </u> | | | | | - ~ | | l |

a NA = Not applicable

TRTSG = Treated plot receiving two foliar applications of BYI 02 sorghum trials at a tagget PHIOf 21 days

collection of grain samples Seed treatment trials with BYI 02960 480 Fastor

Duplicate composite samples of grain were collected from the TRTSG plots at pre-harvest intervals (PHIs) ranging from 20 to 21-days (intended PHI = 21 days). In one decline trial, duplicate composite grain samples were collected from the TRTSG plot at 10 13, 19, 26, and 33 days after the last application. Grain from the TRAST plots was campled at the date of earliest commercial harvest (ECH).

Single composite samples of grain were collected from the control plots on the same day the target 21day samples were collected from the freated plots

The residue(s) of BYI 02960, DEA, and DFF AF were quantitated by HPLC-MS/MS using stable isotopically labelled internal standards. The individual analyte residues were summed to give a total BYI 02960 residue. Residue measurements below the analyte LOQ were summed into the total BYI 02960 residue value as the analyte LOQ Value.

Findings

Concurrent recoveries of BXT 02960, DFA, and DFEAF were measured with each set of samples to verify method performance. All recoveries were corrected for any interferences in corresponding controls The overall mean of the recoveries for each matrix was within the acceptable range of 70 to 110%, and the standard deviation values were \leq 20% (Table 6.3.2.16-5).

Bayer CropScience

Table 6.3.2.16-5: Summary of Recoveries of BYI 02960 from Sorghum

| Crop Matrix | Analyte | Spike Level (ppm) | Sample Size (n) | Recoveries (%) | Mean % Stan Recovery % Dev. |
|----------------|-----------|-------------------------|--------------------|---|--|
| | | 0.010 | 7 | 106, 95, 104, 113, 100, 11789 | 104% 2.7% |
| | BYI 02960 | 0.100 | 3 | 104, 96, 119 | 106% \$ \$11.9% |
| | B1102900 | 1.000 | 2 | 97, 101 | 99% NAb |
| | | 2.000 | 3 | 95, 103, 88 | J 95% J-4% |
| | | 0.050 | 7 | 89, 81, 84, 88089, 85, 83 © | 3.4% |
| Grain | DFA | 0.100 | 3 | 99, 86, 99 | Q95% \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ |
| Grain | DrA | 1.000 | 2 | 108,940 | 101% NAb |
| | | 2.000 | 3, | · \$\tilde{\phi}\)97, 90788 \$\tilde{\phi}\ | \$92% \$\tag{4.4%} |
| | | 0.010 | | © 102, \$7, 92, \$20, 111 103, 194 | 103% 11.1% |
| | DFEAF | 0.100 | A 3 . C | 1 9 3, 92, 111 | 102% 79.8% |
| | DEAF | 1.000 | 2 2 | 118/103 | 110% NAb |
| | | 2.000 | | 104, 96, 96 | 98% 2.5% |

- a Mean Recovery = mathematical average of all recoveries
- b NA = Not applicable, as a Standard Deviation is not calculated for less than three value

The freezer storage stability study indicates that BYI 02960 residues were stable in crops with high starch content during frozen storage for at least 18 months prior to analysis as shown for wheat grain as representative crop. The maximum storage period of frozen samples in this study for BYI 02960 was 196 days. A summary of the storage conditions are shown in Table 6.3.2.16-6.

Table 6.3.2.16 Summary of Storage Conditions for Sorghum

| Residue Component(s) | Watrix (RAC) | | Marrimum Average Storage Temperature | Actual Storage Duration months (days) b | Interval of Demonstrated Storage Stability months (days) ^c |
|-------------------------|-----------------|-----|--------------------------------------|---|--|
| BYI 02960 | Grain | | \$<-20° | 6.5 (196) | 18 (557) |
| DFEAF | Grain | Q o | \$ € \$00°C | 6.5 (196) | 18 (557) |
| D A | Grain | | ~~-20°C | 6.5 (196) | 18 (557) |

- The maximum average storage temperature is from the time of sample receipt at BRP until sample extraction and is the maximum of all average freezer temperatures at BRP. While preparing for sample analysis, the samples were maintained in a laboratory freezer.
- b The storage diration is the time from field sampling through the last sample extraction.
- c diffuor withyl-armo-furanone in matrices. Bayer CropScience Report No. RARVP046, amended version including 18-romth data (KII 46, 1.1/0).

The total BYI 02960 residue data for sorghum commodities following seed treatment application with BYI 02960 480 FS or two foliar applications of BYI 02960 200 SL are shown in Table 6.3.2.16-7.



Total BYI 02960 Residue Data from Sorghum after a Seed Treatment Application with BYI 02960 480 FS or Two Foliar Applications of BYI 02960 200 SL $\,$ Table 6.3.2.16-7:

| | *************************************** | BY1 0290 | | , 01 1 ,, 0 . | | | | 21102 | | | o |
|----------------|---|-----------|------------------|---------------|---------------------|--------------------------------------|-----------------------------|-------------------------------------|------------------------------------|---|---|
| Trial Number | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | % Dry Matter | Total Rate Lb a.s./A (kg a.s./ha) | Sampling Interval (days) | BYI 02960 BYI 02960 BYI 02960 | DFA Begique (mg a.s. equiv./kg) | DFEARResidue & DFEARResidue & Que a.s. equiv. kg) | Tatal BW02960 Residue (m@a.s. equiv./kg) |
| RV083- 10HA | , AR, Region 4, 2010 | TRTSG | Pioneer 85Y40 | Grain | 86 V | 0.369 | | | 2 | i J | 1.3 1.5° Avg: 1.4° |
| RV084- 10HA | , KS, Region 5, 2010 | TRTSG | B-7B47 | Grain |) ~ | 0.376 (0.15) | 21 | Y Q' | <0.050 \$0.050 \$ | 0.019 0.014 0 | 0.93 |
| | | TRTST | . 3// | | ľ, | 0.934 | | , Ø | Ž6 | <0.010 <0.010 | <0.070 <0.070 Avg: <0.070 |
| RV085- 10HA | Region 5, 2010 | | » <i>(</i> | Ţ | | 0.364 (9.408) | | 9.386 × 0.530 × | 0.137 0.124 | 0.062 0.065 | 0.58 0.72 Avg: 0.65 |
| RV086- 10DA | Region 5, 2010 | TRTS | NC#371 | Grain 5 | 979 100 100 | ©.363 (0.407) | ¥ 10 V V | 1.68 1.34 | <0.050 <0.050 | 0.022 0.015 | 1.7 1.4 Avg: 1.6 |
| Ş | | | | | 83 × « « « | © 363 (0.409) | 13 | 1.28 1.38 | <0.050 <0.050 | 0.018 0.019 | 1.3 1.4 Avg: 1.4 |
| 54 | | | | | 86 ₀ | 0.363 (0.407) | 19 | 0.777 0.830 | <0.050 <0.050 | 0.015 0.015 | 0.84 0.89 Avg: 0.87 |
| 4 | | | | | 80 | 0.363 (0.407) | 26 | 1.26 1.80 | <0.050 0.052 | 0.014 0.016 | 1.3 1.9 Avg: 1.6 |
| \$ | Region 5, 2010 | | | r · | 83 | 0.363 (0.407) | 33 | 0.825 0.811 | <0.050 0.053 | 0.017 0.020 | 0.89 0.88 Avg: 0.89 |
| | G G | | | | | | | Conti | nued on | next paş | ge |

Table 6.3.2.16-7 (cont'd): Total BYI 02960 Residue Data from Sorghum after a Seed Treatment Application with BYI 02960 480 FS or Two Foliar Applications of BYI 02960 200 SL

| | | | | | | | | | | 2 | |
|----------------|---|-----------|----------------|--|--------------|--------------------------------------|---|-------------------------------|------------------------------------|-----------------------------|--|
| Trial Number | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | % Dry Matter | Total Rate Lb a.s./A (kg a.s./ha) | Sampling Interval (dlays) ^a | BYI 02960 Residue (mg/kg) | DFA REGidue (mg.a.s. equivedeg) | DEEAFRESidue (mg. cquivake) | Foral BY 102960 Residue (mg 103, equiv. Rg) |
| RV087- | , TX, | TRTSG | Asgrow | Gra | 87 | 0.364 (0.408) | ~2¶ | 0.559 29.457 | Q.138 _* | 9.051 | 0.75 |
| 10HA | Region 6, 2010 | | A571 | | | | | | 0.119 | | 0.63 Avg: \$0.69 |
| | | TRTST | Asgrow | Grain | 788 (1) | 0.012 (0.014), | ÆCH. | .≪9.010° .×0.01 6 } | <0.050 <0.050 | <0.010 <0.00 | <0.070 <0.070 |
| | | .C | | | | | | | | Ö Ü | Avg: <0.070 |
| RV088- 10HA | TV Davies (| TRTSG | Dekarb; | Grain | \$5 | 9375 (0.420) | § 20 ° | 0.866 0.72 0 | 0.061 0.0 5 2 | 0.044 0.036 | 0.97 0.81 |
| | TX, Region 6, 2010 | Q C | 3707 | | ~ | | | 0.72 9 | Ö, | | Avg: 0.89 |
| RV089- 10HA | NE, Region , | TRTSG | 7B47 | Frain (| 783 D | ©.367 (0.412) © | 21 % | 9 0.323 0.352 0.3 | 0.053 0.055 | 0.039 0.034 | 0.41 0.44 Avg: 0.43 |
| RV090- | TX\ | TRTSG | ~ | \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | 88 | 0.370 | 21 | 0.488 | < 0.050 | < 0.010 | 0.55 |
| 10HA | Region 8, 2010 | | | Grain | | (0.448) | <i>W</i> | 0.505 | < 0.050 | < 0.010 | 0.56 |
| | | | | | Ť, | | 7 7 | | | | Avg: 0.56 |
| Ş | | TROST | F-270F | Grain | 89** © | 0.018 (0.020) | ЕСН | <0.010 <0.010 | <0.050 <0.050 | <0.010 <0.010 | <0.070 <0.070 Avg: |
| | | J.S. | | y S | Ű | F | | | | | < 0.070 |
| RV091- 10HA | Region 8, 2010 | TRTSG | Garst. 5549 | Grain | 89 V | 0.362 (0.406) | 21 | 0.391 0.525 | <0.050 <0.050 | <0.010 <0.010 | 0.45 0.58 |
| | | | | | r | | | | | | Avg: 0.52 |

- a Sampling interval is the interval between last application and sampling date.
- b Total BYL 02960 residue is the sum of BYL 02960, DFA, and DFEAF residue in parent equivalents. Residue measurements below the analyte LOQ were summed into the total BYI 02960 residue value as the analyte LOQ value. These totals represent the upper limit of what the residue levels might be.
- c Maximum cosidue found in sorghum grain after foliar application.
- d AFT residue found in southum grain after foliar application.

TRTS Treated plot receiving two foliar applications of BYI 02960 200 SL for the collection of grain samples from sometimes at a starget PHI of 21 days

TRTST = Seed treatment trials with BYI 02960 480 FS for collection of grain samples

ECH = Earliest Commercial Harvest.



Conclusion

Nine field trials were conducted to measure the magnitude of total BYI 02960 residues in/on sorghim grain following two foliar spray applications of BYI 02960 200 SL. Three of these field trials also included plots to measure the magnitude of BYI 02960 residues following the magnitude of BYI 02960 residues follow with BYI 02960 480 FS.

The total BYI 02960 residue data for sorghum following seed treatment or foliar applications are summarized in Table 6.3.2.16-8.

Summary of Residue Data for Total BYI 02960 from Sorglom following Folian Table 6.3.2.16-8: Applications of BYI 02960 200 SL or Seed Treatment with BYI 02960 480

| Commodity | Plot Name ¹ | _ F & % & _ (| (day) | | Max at 60667 | ⊈ Zer | | dian 3 dian 3 | O Mean D | Standard Deviation |
|------------------|------------------------|--------------------------------|----------|---------------|--------------|-----------------|---------|------------------|-------------|--------------------|
| Sorghum Grain | TRTSG | (0.406 - 0.420) | ©21 © 18 | 9 .404 | 523 | 1.9 | | 0.687 | 0.758 | 0.307 |
| Sorghum Grain | TRTST | 0.012 0.024 (0.014 - 0.025) | ECH % | <0.070 | <0.070 | NA ⁵ | \$0.07Q | <0.070 | <0.070 | 0 |

- 1 TRTSG = Treated plot receiving two foliar applications of 100 1029 200 SL for the collection of grain samples at a target PHI of 21 days
 - TRTST = Seed treatment trials with 1801 02960480 FS For
- 2 HAFT = Highest Average Feld Trial
- calculated on the basis of residue values at the PHI
- Sampling day howing highest residue
- Not applicable, since no decline trials were conducted after sens treetment

 H = Earthest commercial barvest

ECH = Earliest commercial farves

Total BYI 02960 residues in sorghum grain samples from seed treatment plots were always below the LOQ of 0.07 mg/kg, whereas grain samples from plots receiving rather late spray applications showed considerable BYI 02000 residues. The maximum total BYI 02960 residue at the PHI of 21 days amounted to 1.5 mg/kg. The only decline trial available indicated that the residue peak might be some days after the PHI: a maximum residue of 1,0 mg/kg was detected 26 days after the last application in the decline trial. However a subsequent decrease of the residues suggested a further decline of the residues or at least a residue plateau at later time points.

Therefore it was concluded that the residue data provided for sorghum are suitable for regulatory purposes.



IIA 6.3.2.17 Cereals - wheat

Residue data from NORTH AMERICA

BYI 02960 is to be registered in USA and Canada for use as a foliar treatment in on cereal grajus, except rice (crop group 15). Representative crops tested were barley, field and sweet corn, sorghuro and wheat. The use pattern for wheat in North America is summarized in Table 6.3.2.17-

A total of twenty-nine field trials were conducted in wheat. The studies are described below.

Target Use Pattern for the Application of BYFQ2960 on Wheat (to gain Grams) Table 6.3.2.17-1a:

| | | | | Target | Rate/Appl | cation | | | | | Sp Vol | ray ume |
|-------------|---------------------|--------|------|----------------------------|-----------------------|-----------------|------------------|-------------------|--------|----------------|-----------|-------------|
| | | | _ | ulated ct (FP <u>) </u> | Açtine Sı | ıb % anc | e (A s.) | App. _∞ | (Targe | Adjuvant | t of | |
| Application | Test | No. of | | S. | Name of ∧ _`~a.s © | Jlb [| kg 🎢 | Interval | PHI | /Additive | | |
| Type | Substance | Apps | mL/A | fl øz/A | "°≽⁄a.s. "© | a.s./A | a.s./ha | (Days) | (Days) | % (%) & | GPA | LPHA |
| | BYI 02960 200 SL | | | | BYI 02960 | Q. 83 | 2005 | Ž 7 Š | | | 1 | 93–467 |

In parallel, three residue trials were conducted with \$\text{NYI 02960 480 FS following a seed treatment} application. The seed treatment rates for wreat grain is presented below.

Target Use Pattern for the Application of BY 02960 on Whost (to gain Grains) Table 6.3.2.17-1b:

| | | Targe | t Rate/Appt | cation! | | | | | _ | ray ume |
|---------------------------------|-----------|----------|-------------|--------------------|----------|-----------------|------------------|----------|-----------------|-----------------|
| | For | | Active Su | obstance | e (a.s.) | Target | | | | |
| | ∦ ≰√imL/ | ′ l f1 " | | (100 Hs | Rg a.s. | App. | Target | Adjuvant | | |
| Type Substance | Apps seed | Lb seed | 0.0 | 6000 | 6000 | (1)0376) | (Days) | (%) | GPA | LPHA |
| Seed BYI 02960 treatment 200 St | 1 219 | 3.40 | BYI 02960 | 0.105 ₄ | 105 | NA ¹ | ECH ² | NA^1 | NA ¹ | NA ¹ |

¹ NA = Not applicable.

| 1 NA = Not applicat | ole. The state of the state of |
|---------------------|---|
| 2 ECH = Earlie Con | mmercial harvest |
| | Ble. The state of the state of |
| Report: | 451A 63.2.17201; and L. M. 2012 |
| Title. | BYI 0.960 200 SL and BYI 0.960 480 FS - Magnitude of the Residue in/on Wheat |
| Report No & | RARVY003, dated @nne 27/2012 |
| Document No 👋 | M43325 01-1 |
| Guidelines: | JS: EPA Residue Chemistry Test Guidelines OPPTS 860.1500, Crop Field Trials |
| | Canada: PMRA DACO 7.4.1, Supervised Residue Trial Study |
| | PMRA DACO 7.4.2, Residue Decline |
| | OECD: Guidelines for the Testing of Chemicals, 509, Crop Field Trial, |
| | Adopted Sept. 7, 2009. |
| GLP S | Yes |



Twenty-nine field trials were conducted to measure the magnitude of BYI 02960 residues in/on wheat forage, grain, hay, and straw following two broadcast foliar spray applications of BYI 02960 200 SL. Three of these field trials also included plots to measure the magnitude of BYI 02960 residues in these same matrices following the planting of seed treated with BYI 02960 480 FS. Since wheat forage, hay and straw (as feed items) are not imported into Europe, this dossier will focus of wheat grain only. Complete information on the study, including the data on the feed items, has been submitted in Global Joint Review Submission in October 2012.

BYI 02960 200 SL is a soluble concentrate formulation containing 200 g BYI 02960 L and 480 FS is a flowable concentrate containing 480 g BY 02960/L. The number and location of trials conform to the guidance given by the EPA (Table 6.3.2.1

Trial Numbers and Geographical Cocations for B Table 6.3.2.17-2:

| trials conform to the guidance given b | y the EPA (Table 6.3.2 | 2.17-2). | |
|--|-----------------------------|--|--|
| Table 6.3.2.17-2: Trial Numbers an | d Geographical Cocati | ons for PYI 02960 in on Wheat Requested | |
| NAFTA Growing Region | Submitted a | Requested | |
| 1 | | | |
| 1A | | | |
| 2 | | | |
| 3 | | | |
| 4 | | | |
| 5 | | 5 27 37 | |
| 5A 💸 😽 | | | |
| | | | |
| 6 0 | | | |
| 76 4 | | O 25 | |
| 7A 2 3 | | 1 | |
| | | <u> </u> | |
| | | | |
| | | | |
| 11 8 | | 1 | |
| 12 9 | | | |
| 135 4 | | | |
| 14 0 0 | 7 ° 8 | 8 | |
| Total | 29 | 29 | |
| a Four of the twenty-rine trips were decline | thals (one in Region 5, one | e in Region 7, one in Region 8, and one in Region ments. | |
| 14). The additional decline trial overe per | formed to meet EU require | ments. | |
| 14). Life additional decline trials were per | | | |

Four of the twents line trips were decline trials (one in Region 5, one in Region 7, one in Region 8, and one in Region



Material and Methods

Individual foliar application rates ranged from 0.175 to 0.190 lb BYI 02960/A/application (0.196 to 0.213 kg BYI 02960/ha/application). Seasonal foliar application rates ranged from 0.353 to 0.378 b BYI 02960/A (0.396 to 0.423 kg BYI 02960/ha).

All foliar applications were made at growth stages ranging from BBCH 12 to 99 (BBCH 12: two leaves unfolded; BBCH 99: harvested product). The interval between the applications was 4 to days. For sites with two foliar applications, spray volume, ranged from 10 to 31 GPA (93 to 290 L/ha).

All foliar applications were made using ground-based equipment. The djuvan Dyn Amic was used in all of the foliar applications at 0.25% (v/v).

Wheat seeds were treated at the Bayer Crop Science Seed Technology Center with BYT 02969 480 pS at a target rate of 0.105 lb BYI 02960/100 lb seed (105 g BYI 02960/100 kg seed) using procedures typical of commercial seed treatment operations. Following treatment and shipment to the field sites, the treated seeds were planted into the TRTST plots at seeding rates ranging from 869 to 109 lb seed/A (97.3 to 122 kg seed/ha). The resulting soil application rates range from 9.091 to 0.114 lb BYI 02960/A (0.102 to 0.128 kg BYI 92960/ha).

Trial Site conditions, including soil characteristics are summarized in Table 6.3.2.17-3. Study use patterns are summarized in Table 6.2.2.1744.

Table 6.3.2.17-3 Total Site Conditions for BYI 02960 on When

| <i>P</i> a | | Soil Characteristics ^a | | | | Meteorolo | ogical Data ^b |
|----------------------|------------------------------------|-----------------------------------|----------|------------|---------------------|---------------------------|--------------------------|
| Trial Identification | Trial Location (City, State, Year) | Type ^{\(\)} | OM (%) | рЫ | CEC (meq/100g soil) | Total Rainfall (in) | Temp. Range (°F) |
| RV054-10HA | (20 <u>10</u>) | Sandy Loam | \$0.9 \$ | 8 6 | 6.8 | 4.55 | 50–93 |
| RV055-10HA | LA, 2011 | SilvLoand | | 5.3 | 4.2 | 8.16 | 41–86 |
| RV056-10HA | , K.S., 2010 | Sood * | 0.6 | 6.4 | 3.5 | 9.17 | 16–98 |
| RV057-10HA | , KS, 2010 | Silt Login | 1.8 | 5.8 | 16.8 | 17.83 | 47–87 |
| RV058-101A | Canada, 2010 | San y Loam | 2.1 | 7.6 | 14.1 | 15.99 | 55–80 |
| RV059-10H | 9MN, | Clay Loam | 5.4 | 6 | 23.4 | 11.42 | 57–83 |
| RV06050DA | , MO, 2011 | Silt Loam | 1.7 | 5.7 | 8.7 | 29.68 | 40–95 |

Table 6.3.2.17-3 (cont'd): Trial Site Conditions for BYI 02960 on Wheat

| | | Soi | l Characte | eristics | a | Meteorolo | ogical Datab |
|-------------------------|---|--------------------|-------------------------------|--------------|---------------------------|---------------------------|----------------|
| Trial Identification | Trial Location (City, Country/State, Year) | Туре | OM (%) | pН | CEC (meq/100g soil) | Total Rainfall (in) | Temp Range |
| RV061-10HA | TX, 2011 | Sandy Loam | 0.9 | 6.6 | 10 | 1.37 | 550,87 |
| RV062-10HA | NE, 2010 | Silt Loam | 2.7∜ | 6.8 | 19.1 | 20 🕏 | 41-89 |
| RV063-10HA | , ND, | Loam | <u> </u> | 7 | Q 27.2 ° | (10.82) | © 43-88, © |
| RV064-10HA | , ND, 2010 | Clay Loang | ♥ 3 % • © | | \$19.9 T | ©.85 ° \(\) | 5581 |
| RV065-10HA | , ND, 2010 | Loan | © 3.8~ | 7.6 | 30.8 | 7 10.48 × 10.48 | 42- 8 7 |
| RV066-10DA | , NE, 2011 | Solt Loans | 2.7 | %6.8 %6.8 | 17.6 | 15.53 | 38-91 |
| RV067-10HA | , AB, AC Canada, 2010 | I Koam | 15 | | 19 | ©.00 × | ¥ 42–78 |
| RV068-10HA | 2011 | Fine Sandy Loam | \$ 0.75 ₀ | 7.4 | | 0,61 | 38–101 |
| RV069-10HA | OK, 2010 | Sandy Læm | | \$5.9 Q | 7.7 | 55.06 | 50–93 |
| RV070-10HA | , TX, & | Sandy Loam | | J .6 | 12.3 | 1.17 | 23–101 |
| RV071-10H | TX, 2011 | Silty Clay | 2.20 | 8.1 | \$\frac{1}{2}6.3 | 1.21 | 35–93 |
| RV072-10HA | TX, 2011 | Clay | \$ 2 \$ | Ø 8 (| 40.4 | 2.88 | 41–94 |
| RV073-10DA | TX, 2011 | Clay C | | 8.2 8.2 | 50.4 | 2.35 | 29–103 |
| RV074-10H | 2010 × | Loam | 7.2 F | 6.3 | 15.5 | 4.46 | 40–81 |
| RV075-00HA | Canada, 20Q | ØLoam V | 4.3 | 6.8 | 17 | 10.08 | 75–100 |
| R\\0/6-10HA | Canado, 2010- | Loam V | 4.4 | 7.5 | 25.8 | 9.57 | 51–76 |
| RV077-10H | MB, | Loam | 5.3 | 7.5 | 24.4 | 18.13 | 42–76 |
| RV078-ØHA | | Sand Loam | 2.32 | 5.5 | NA° | 8.76 | 49–77 |
| RV079-1014A | SK, Canada, 2010 | Loam | 8 | 7.5 | 24.75 | 12.92 | 50–74 |

Table 6.3.2.17-3 (cont'd): Trial Site Conditions for BYI 02960 on Wheat

| | | Soi | l Characte | eristics | Sa | Meteorolo | ogical Datab |
|--|---|--|-----------------|-------------------|----------------------------|--|------------------|
| Trial Identification | Trial Location (City, Country/State, Year) | Туре | OM (%) | pН | CEC (meq/100g soil) | Total Rainfall (in) | Temps Range |
| RV080-10HA | , SK, Canada, 2010 | Loam | Not Reported | 7.1 | Not Reported | 13.64 | 41774 |
| RV081-10HA | AB, Canada, 2010 | Loam | 3.4 | 6.2 | Q 1 | 8652 \$\infty\$\infty\text{\$\infta\to\text{\$\infty\text{\$\infty\text{\$\infty\text{\$\infty\text{\$\infty\text{\$\infty\text{\$\infty\text{\$\infty\text{\$\infty\text{\$\infty\text{\$\infty\text{\$\infty\text{\$\infty\text{\$\infty\text{\$\infty\text{\$\infty\text{\$\infty\text{\$\infty\text{\$\infta\ta\text{\$\infty\text{\$\infty\text{\$\infty\text{\$\infty\text{\$\infty\text{\$\infty\text{\$\infty\text{\$\infty\text{\$\infty\text{\$\endot\text{\$\infty\text{\$\infty\text{\$\infta\ta\to\text{\$\infta\text{\$\infta\ta\text{\$\infta\ta\text{\$\infta\ta\to\text{\$\infta\to\text{\$\infta\ta\text{\$\infta\ta\to\text{\$\infta\ta\to\text{\$\endot\text{\$\infta\ta\to\text{\$\infta\to\text{\$\infta\to\text{\$\endot\text{\$\infta\ta\to\text{\$\infta\to\text{\$\infta\ta\to\text{\$\infta\to\text{\$\infta\to\text{\$\infta\ta\to\text{\$\infta\ta\to\text{\$\infta\ta\to\text{\$\infta\ta\to\text{\$\infta\to\text{\$\infta\ta\to\text{\$\infta\ta\to\text{\$\infta\ta\to\text{\$\infta\ta\to\text{\$\infta\to\text{\$\infta\to\to\text{\$\infta\to\text{\$\in\ | 37-73 |
| RV082-10DA | AB, Canada, 2010 | Silty Clay Loam & | 1 1.3 | 5.6 | | Q 8.85 1 | 37-73 |
| a Abbreviations us b Data is for the ir obtained from no c NA = Not Avail | AB, Canada, 2010 sed: %OM = percent of the month of earby government weal able. | rganic matter E first application t ther stations. | C = stion e | wchang donth o | e supacity Past sandpling. | Meteorologica | al detriwere (° |

- Study Use Pattern for BYI 02960 200 SL and BY 02960
- c NA = Not Available.

Table 6.3.2.17-4:

| | | | | | J) [| | | <u> </u> | |
|----------------------|---------------------------------|----------|---------------------|-------|-------------|------------------|---------------------------|-----------------------------------|--------------------|
| | <i>≈</i> | | | App | plication | n & | | | |
| Trial Identification | | Pot Name | Methode Charles | (tage | J.P. | | Retreatment Intervacions) | Total Rate lb a.s./A (kg a.s./ha) | Tank Mix Adjuvants |
| Foliar Å | | | | | | | | | |
| RV054- 10HA | NØ, 029 Ræion 2, 000 2010 | YI TRISG | Broadcast | 75 | 31 (290) | 0.186 (0.209) | NA | 0.370 (0.415) | DyneAmic 0.25% v/v |
| 4 | | | | 83 | 31 (290) | 0.184 (0.206) | 6 | | DyneAmic 0.25% v/v |
| RV055- 10HA | LA, B | TWTSG | Froadcast foliar | 77 | 19 (180) | 0.185 (0.207) | NA | 0.369 (0.414) | DyneAmic 0.25% v/v |
| | LA, Begion 4, 2011 | | | 85 | 19 (180) | 0.184 (0.206) | 7 | | DyneAmic 0.25% v/v |



Table 6.3.2.17-4 (cont'd): Study Use Pattern for BYI 02960 200 SL and BYI 02960 480 FS on Wheat

| | | (ii) | | | Ap | plicatio | n | | | Q ₁ |
|----------------------|---|-------------------------------|-----------|---------------------|---------------------------------|-----------------------------|---------------------------------------|----------------------------|---|--|
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Method | Timing/Cowth Stage (BBCH) | Spray Volume GPA (LA) | Rate lbas/A (kg a.s./ha) | Retreatment Interval Cays) | Cyctal Rafe th a.s./A (kg abs./ha) Loz | Tank Wis Adjukants |
| <u> </u> | pplication | | | | à°. | Ţ, | | | | |
| RV056- 10HA | , KS, Region 5, 2010 | BYI 02960 200 SL | TRTSG | Broadcast foliar | 692 | 20 (1967) 20 (190) | 0.187 (0.209) 0.186 (0.209) | NAS | 0.373 | DyneAmic DyneAmic 0.25% v/v |
| RV057- 10HA | , KS, Region 5, 2010 | BX960 300 SL | TRTSG | Broadcast foliar | 77,0 | 15Q (140) (150) | 0.180 (0.201) (0.184 (0.206) | | 0.364 (0.408) | DyneAmic 0.25% v/v DyneAmic 0.25% v/v |
| RV058- 10HA | Region 5. | BYM @960 200 SI | TRTSG | Proadcast foliar | 83 ³ 5 5 83 | (470) | 0.176 (0,197) 0.183 | NA 7 | 0.359 (0.402) | DyneAmic 0.25% v/v |
| RV059- 10HA | Region 50 2010 | 2960 200 Sb | ERTSG | Broaderst | | A(N 10) | 0.183 (0.205) 0.183 | NA | 0.366 (0.410) | Dyne- Amic, 0.25% v/v |
| RV060- 10DA | Region 5, C | BYI 02969 200 SL | TRTS6 | Broadcast foliar | 77 | 20 (190) 20 (190) | 0.183 (0.205) 0.184 (0.206) | NA | 0.367 (0.412) | Dyne- Amic, 0.25% v/v DyneAmic 0.25% v/v |
| | | A A | | | 83 | 20 (190) | 0.184 (0.206) | 6 | | DyneAmic 0.25% v/v |



Table 6.3.2.17-4 (cont'd): Study Use Pattern for BYI 02960 200 SL and BYI 02960 480 FS on Wheat

| | | <u>(</u> | | | Ap | plicatio | n | | | Q,° |
|----------------------|---|--|-----------|--|--|-----------------------------|--------------------------------------|--|------------------------------------|--|
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Method | Timing/Chowth Stage (BBCH) | Spray Volume GPA | Rate lbas/A (kg a.s./ha) | Referent Interval days) | Crotal Rafe th a.s./A (kg 285./ha) | Tank Wis Adjurants Line |
| Foliar A | pplication | | | | à°. | Ţ, | |) (| | |
| RV061- 10HA | TX, Region 6, 2011 | BYI 02960 200 SL | TRTSG | Broadca & folial | 85% 85% 85% 85% 85% 85% 85% 85% | 29 (276) 276 (270) | 0.18% (0.207) | 9 | 0.366 | DyneAmic DyneAmic 0.25% v/v |
| RV062- 10HA | Region 7, 2010 | B.M. 02960 @ 2300 SLC | | Broadcast foliar | 'U' | 205 (190) | 0.184 | NØ | 0.368 (0.413) | DyneAmic 0.25% v/v |
| | | e & | | \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ \\ | | 1 (190) | %1,85 (@.207) | \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ | | DyneAmic 0.25% v/v |
| RV063- 10HA | Region 7 | BYI (2960 200 SV | | | | 20 (190) | 0.182 (0.204) 0.183 (0.205) | NA 5 | 0.365 (0.409) | DyneAmic 0.25% v/v DyneAmic 0.25% v/v |
| RV064- 10HA | <u> </u> | ®YI • @2960 200 \$\$\text{\$\ext{\$\text{\$\exitt{\$\etitt{\$\text{\$\etitt{\$\text{\$\text{\$\text{\$\exititt{\$\text{\$\text{\$\text{\$\tex{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\exititt{\$\text{\$\exititt{\$\text{\$\etitt{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\text{\$\e | FRTSCC | Broadcast folfar | - 3 191) | 20 (190) | 0.183 (0.205) | NA | 0.368 (0.412) | DyneAmic 0.25% v/v |
| * | | | | | 83 | 19 (180) | 0.185 (0.207) | 6 | | DyneAmic 0.25% v/v |
| RV065- 10HA | Regions, 6 | BYI * 02960 200 SL | TRTSG | Broadcast foliar | 73 | 19 (180) | 0.176 (0.197) | NA | 0.360 (0.403) | Dyne- Amic, 0.25% v/v |
| | | ** * | | | 77 | 20 (190) | 0.184 (0.206) | 5 | | Dyne- Amic, 0.25% v/v |



Table 6.3.2.17-4 (cont'd): Study Use Pattern for BYI 02960 200 SL and BYI 02960 480 FS on Wheat

| | | ~ | | | Ap | plicatio | n | | | |
|----------------------|---|-------------------------------|-----------|---------------------|--|---|---------------------------------------|---|----------------------------------|--|
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Wethod | Timing/Growth Stage (BBCH) | Spray Volume GPA (L/hab) | Reach a Share (kg a.s./ha) | Refresament Interval (day) | Total Rate B.A.s./A (Kg a.s./Ba) | |
| Foliar A | pplication | • | • | | |) | | Ş | A SA | 4 |
| RV066- 10DA | Region 7, 2011 | BYI 02960 200 SL | TRTSG | | 83 | Ž 220 | 0.183 (0,205) (0,183 (0.205) | NA D | | DyneAmic 0.25% v/v |
| RV067- 10HA | , AB, Region 7, 2010 | BYI (202960C) 200 SL | | Broadcast foliar | 7 5 587 5 5 | (140) (140) (140) (140) (130) | 0.781 0.204) 0.176 (0.194) | (2) A (2) (3) (4) (4) (4) (4) (4) (4) (4) (4) (4) (4 | 0.358 0.401) | Agsurf, 0.25% v/v Agsurf, 0.25% v/v |
| RV068- 10HA | Region 8, 2011 | Ĉi` • | | Broadcast Foliar | \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ | 20 (190) 20 (190) | ©.186 (0.208) 0.186 (0.208) | NA 6 | 0.371 (0.416) | Dyne Amic 0.25% Dyne Amic 0.25% |
| RV069- 10HA | Region 8, | ©BYI 02969 20@SL | TRTSG | Broadcast Foliar | 83 | 19 (180) | 0.179 (0.201) | NA | 0.364 (0.408) | DyneAmic 0.25% v/v |
| | | | | 2, | | 19 (180) | 0.185 (0.207) | 7 | | DyneAmic 0.25% v/v |
| RV070- 10HA | Region 8, | BY\ 02900 260 SL | TRIÇ | Broadcast foliar | 71 | 20 (190) | 0.183 (0.205) | NA | 0.366 (0.411) | DyneAmic 0.25% v/v |
| ~Z, | | | | | 83 | 20 (190) | 0.184 (0.206) | 8 | | DyneAmic 0.25% v/v |

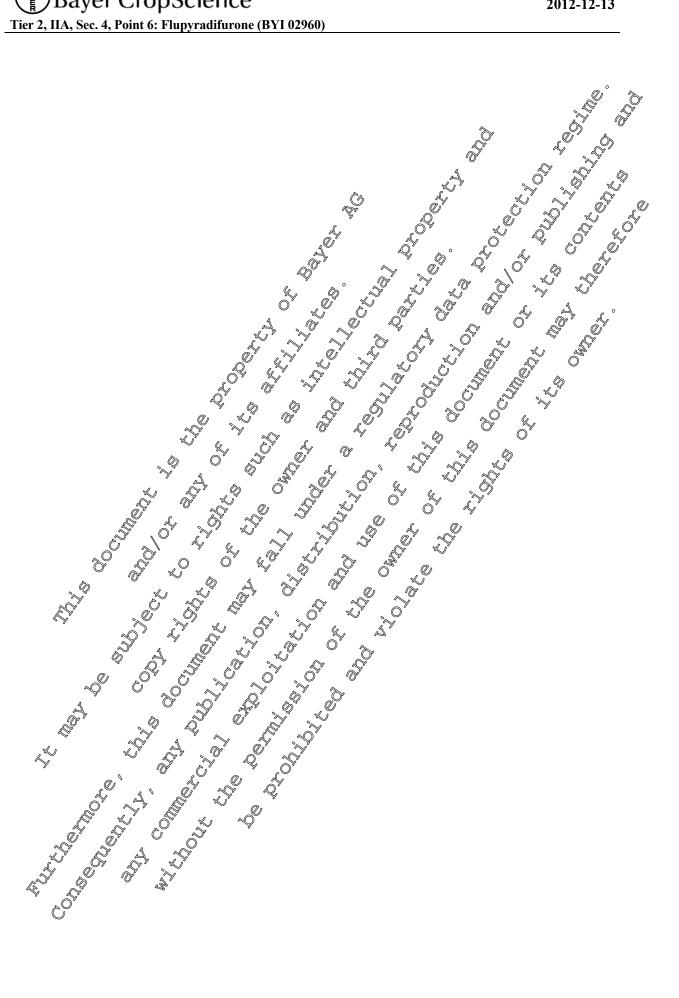




Table 6.3.2.17-4 (cont'd): Study Use Pattern for BYI 02960 200 SL and BYI 02960 480 FS on Wheat

| | | <u> </u> | | | Ap | plicatio | n | | | a n |
|----------------------|---|--|------------------|---------------------|------------------------------|-------------------|-------------------------------|-----------------------------|----------------------|--|
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Method | Timing/Qrowth Stage (BBCH) | Spray Volume GPA | Rate Ilbass/A (kg a.s./ha) | Retreatment Interval Chays) | Optal Rake 4b a.s./A | Tank Wis Adjukants |
| Foliar A | pplication | | | (1) (1) | · · | Ţ, | | 7 (| | |
| RV071- 10HA | Region 8, 2011 | BYI 02960 200 SL | TRTSG | Broadca C folia | 855 | 185 | 0.180 68201) | NAG | 0.362 | DyneAmic DyneAmic 0.25% v/v |
| RV072- 10HA | Region 8, 2011 | 200 SI | | Broadcast foliar | \$7 | (190) | | NOV | 0.359 (0.402) | DyneAmic 0.25% v/v DyneAmic 0.25% v/v |
| RV073- 10DA | | BY1 92960 200 St | TRTSG | Broadcast fother | 85 85 87 885 885 | (180) | 0.180 (0.201) | NA 7 | 0.359 (0.402) | DyneAmic 0.25% v/v DyneAmic 0.25% v/v |
| RV074- 10HA | Region 1 V, 2010 | B ¥I Ø2960 200 S Ø | TRTSQ | Broadcast | 77 | 21 (200) 20 | 0.187 (0.209) 0.183 | NA 7 | 0.369 (0.414) | DyneAmic 0.25% v/v |
| RV075- 10HA | Region 14, | \$YI \$02960 200.\$L | Ø ØRTSG *Q | Broadcast foliar | 51 | 21 (200) | 0.182 (0.204) | NA | 0.371 (0.416) | 0.25% v/v Agsurf, 0.25% v/v |
| | | Ž 7 | | | 59 | 22 (210) | 0.189 (0.212) | 5 | | Agsurf, 0.25% v/v |



Table 6.3.2.17-4 (cont'd): Study Use Pattern for BYI 02960 200 SL and BYI 02960 480 FS on Wheat

| | | (u | | | Ap | plicatio | n | | | Q)° |
|----------------------|---|-------------------------------|-----------|---------------------|----------------------------|-------------------------------|---------------------------------------|--|---------------------------------------|--|
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Method | Timing/Coowth Stage (BBCH) | Spray Volume GPA | Rate 1bA&/A (kg a.s./ha) | Retreatment Interval days) | Cotal Rake (b. 2.8./A (kg 288./ha) | Tank Wix Adjukants |
| | pplication | | | | <i>°</i> | Ø', | | | | , , |
| RV076- 10HA | , MB, Region 14, 2010 | BYI 02960 200 SL | TRTSG | Broadcast foliar | 85° | 17 (166) (166) 17 (160) | 0.185 (0.205) 0.499 (6.200) | NAS S | 0.361 | Ag-Surf Ag-Surf Ag-Surf 70.25%v/v |
| RV077- 10HA | , MB, Region 14, 2010 | BAS 02960 (200 SIC | TRTSG | Broadcast foliar | 75, 75, | 17,9 (16,0) | 0.185 | NAY O | 0.414) | Agsurf, 0.25% v/v |
| | | | | | \$ 3 | | | \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ \$ | | Agsurf, 0.25% v/v |
| RV078- 10HA | 2010 7 | 92960 200 ŞE | A SC | | | (200) | 0.177 (Ø.199) (0.179 (0.201) | NA 5 | 0.356 (0.399) | Agral 90, 0.25% v/v Agral 90, 0.25% v/v |
| RV079- 10HA | , SKO Region 14, 2010 | ₩YI - @2960 200 \$9 | PRTSOC | BroadCast | 9 | 22 (200) | 0.184 (0.206) | NA | 0.372 (0.417) | Agsurf, 0.25% v/v |
| * | | <i>></i> ." | * | | | 22 (210) | 0.188 (0.211) | 5 | | Agsurf, 0.25% v/v |
| RV080- 10HA | ANK, Region(14, 2000) | \$YI \$ 02960 200\$L | TRTSG | Broadcast foliar | 65 | 21 (200) | 0.184 (0.206) | NA | 0.371 (0.415) | Agsurf, 0.25% v/v |
| | | 7 | | | 73 | 22 (200) | 0.187 (0.210) | 7 | | Agsurf, 0.25% v/v |



Table 6.3.2.17-4 (cont'd): Study Use Pattern for BYI 02960 200 SL and BYI 02960 480 FS on Wheat

| | <u> </u> | | | | Ap | plicatio | n | | | 0 |
|----------------------|---|-------------------------------|-----------|--|-------------------------------|------------------|---|-----------------------------|----------------------|--|
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Method | Timing/Qrowth Stage (BBCH) | Spray Volume GPA | Rate Ibas/A (kg a.s./ha) | Retreatment Interval days) | Cotal Rate th a.s./A | Tank Wix Adjukants |
| | pplication | 200 | mp.ma ~ | - | <u> </u> | 9 ' | | | | |
| RV081- 10HA | AB, Region 14, 2010 | BYI 02960 200 SL | TRTSG | Booadca Conformation of the conformation of th | | 11 (95) (95) | 0.180 (0.201) (0.201) (0.202) (0.202) | NAS | 0.366 | Agral 90, 25% vv Agral 90, 0.25% v/v |
| RV082- 10DA | | 02960 200 SL | | fogrår | 83' (50 \$83 | (100) | 0.990 (0.213) (0.218) (0.2110) | NA S S S T 7 | 0.378 (0.423) | Agral 90, 0.25% v/v Agral 90, 0.25% v/v |
| Seed Tr | eatment S | | | | Ž, | 0 | . W | | | |
| RV056- 10HA | Region 5, 2010 | BY19 02960 4800SC | TRIST | Treatment | | 27 | 0.114 (0.128) | NA | 0.114 (0.128) | None |
| RV062- 10HA | Region 7, | By 60 02960 60 SC | TRYST | Seed Treatment | | ' NA | 0.101 (0.113) | NA | 0.101 (0.113) | None |
| RV070- 10HA | Region & 2010 | POT 02960 * 480 SC | TKTST | Seed Treathent | 00 | NA | 0.091 (0.102) | NA | 0.091 (0.102) | None |

a NA = Not applicable

TRTSG = Treated plott receiving two foliar applications of BYI 02960 200 SL for the collection of grain samples from wheat trials at a target PHF of 21 days

TRTST = Seed to atment trials with BYI 02960 480 FS for collection of grain samples

Duplicate composite samples of wheat grain were collected at the pre-harvest interval (PHI) of 21 days in the plots receiving two foliar spray applications (TRTSGplots). In the four decline trials, duplicate composite samples of of grain were collected from the treated plots at 10, 15, 21, 28, and 35 days after the last application. For grain from the plots receiving treated seeds (TRTST), harvest occurred at earliest commercial harvest (ECH).

Single composite samples of grain were collected from the control plots on the same day one target 21 day samples were collected from the treated plots.

The residue(s) of BYI 02960, DFA, and DFEAF were quantitated by HPLC-MS/MS using stable isotopically labelled internal standards. The individual analyte residues were sommed to give a total BYI 02960 residue. Residue measurements below the analyte OQ were summed into the total BYI 02960 residue value as the analyte LOQ value.

Findings

Concurrent recoveries of BYI 02960, DFA and DFEAF were measured with each set of samples to verify method performance. All recoveries were corrected for any interferences in corresponding controls. The overall mean of the recoveries for each matrix was within the acceptable range of 70 to 110%, and the standard deviation values were $\leq 20\%$ (Table 6.3.2.17-5).

| | ~ = ~ | · 60 |
|---------------------|--------------------|-----------------------------|
| Table 6.3.2.17-5: | Summary of Recover | ies of BY 602960 From Wheat |
| 1 4010 0.5.2.1 / 5. | | |

| Crop Matrix | Aparyte O | Spilæ Lævei (pøm) & | Sample * Size (n) | Recoveries (%) | Mean Recovery (%) a | Std Dev (%) |
|----------------|-----------|---------------------------|--------------------|---|---------------------------|-------------------|
| | | 0.010° | (48 ⁰ | 105, 90, 91, 98, 85, 75, 112, 119 | 97 | 14 |
| | BYI 02966 | 6,10 6,10 | 21 | 74, 92, 92, 112, 86, 97, 95, 70, 82, 75, 97, 81, 89, 90, 82, 97, 91, 72, 102, 98, 91 | 88 | 10 |
| | \$ ° 4 | 3.00 | $^{\circ}$ 3 | 9 0 , 100, 86 | 92 | 7 |
| | | 99 50 | ~ 8.~ | 70, 71, 74, 80, 84, 116, 84, 70 | 81 | 15 |
| Grain | DFX | 0.10 | 21 | 92, 73, 96, 93, 76, 85, 80, 72, 82, 77, 86, 79, 96, 73, 75, 77, 76, 71, 80, 99, 83 | 80 | 8 |
| | | \$.00 _~ | | 80, 82, 71 | 78 | 5 |
| 4 | | 0.010 | Ø8 & | 72, 78, 85, 96, 90, 112, 95, 82 | 89 | 12 |
| y A | Breaf (| Ø.10 \$ | 2Q, | 75, 105, 86, 115, 78, 93, 100, 76, 83, 89, 99, 96, 109, 87, 86, 94, 112, 88, 99, 82, 87 | 92 | 12 |
| Ŷ | | Z, C | ♥ 3 | 94, 91, 91 | 92 | 2 |

a Mean Recovery = mathematics (average of all recoveries.

b NA Not applicable as a Standard Deviation is not calculated for less than three values.

The freezer storage stability study indicates that BYI 02960 residues were stable in crops with high starch content during frozen storage for at least 18 months prior to analysis as shown for wheat grain as representative crop. The maximum storage period of frozen samples in this study for BYI 0296 was 390 days. Only one untreated wheat grain samples was held in frozen storage for up to 644 days (21 months) prior to extraction (21 months) prior to extraction.

A summary of the storage conditions are shown in Table 6.3.2.17-6.

Summary of Storage Conditions for Wheat Table 6.3.2.17-6:

| Residue Component(s) | Matrix (RAC) | Maxiavum Ayerage Storage Temperature | Actual Storage Control Duration months (days) | memonsa ateu |
|-------------------------|-----------------|--------------------------------------|---|--------------|
| BYI 02960 | Grain | -17 | 2 13 (390)d (590)d | 0 180 V |
| DFA | Grain & | \$17 | (390) | |
| DFEAF | Grain | \$ < -1\$ E | (390) | (557) |

- The maximum average storage temperature is from the time of sample receipt at BRP until cample extraction. While preparing for sample analysic the samples were maintained in a laboratory freezer.
- The storage duration is the time from field sampling through the last sample extraction
- 2012 Storage Mability of BY 102960, My uoroacetic acid, and difluoroethyl-amino wranone in plant matrices. Bayer Orop Science Report No. RARVP046, amended version including 18-month data (KAA 6.1.701).
- One control grafe/samples was analyzed after 644 days of treezer storage. All samples from treated plots were analysed within 13 months

The total PYI 02960 residue data for wheat grain following seed treatment application with The total BYI 02960 residue data for wheat grain following seed treatment application with BYI 02960 480 FS or wo to lar applications of BYI 02960 200 SL are shown in Table 6.3.2.17-7.



Table 6.3.2.17-7: Total BYI 02960 Residue Data from Wheat after a Seed Treatment Application with BYI 02960 480 FS or Two Foliar Applications of BYI 02960 200 SL

| | WI | tn BY1 029 | 00 400 1 | S OI I W | o Foliai | Applic | anons c | прис | 12900 2 | 00 SL | 0 | |
|----------------------|---|-----------------------|-----------|-----------|--------------------------------------|-----------------------------|---------------------------|--------------------------------|------------------------------------|------------------------------------|--------------------------------|--|
| Trial Identification | Location (City, State, Region, and Year) | Crop Variety | Commodity | Plot Name | Detal Rate Ib a.s./A (kg a.s./ha) | % Dry Matter | Sampling Interval, (days) | BYI 02960 E Residue (mg/kgR | DRA Residue (mg a.S. gquiv./kg) | DPLAFResidae (mg a.S.equiv./kg) | Total BY1 02966 Residie | |
| Grain/F | oliar Application | 1 | | D | O " | | . W | " Q | , O, | Ö | | |
| RV054- 10HA | NC, Region 2, 2010 | Pioneer 26R15 | Grain | TRTSG | | 84 © 4 | | 0. 88 5 0.626 | © 03 © 161 | 0.010 0.010 | 0.70 0.80 Avg: ° 0.73 | |
| RV055- 10HA | LA, Region 4, 2011 | Terral Brand LA821 | | TRTSG | 0:369 (0214) . S | 8 7 3 3 | | 0. Q 7 0.125 | 6CJ15 67.118 | <0.010 0.010 | 0.29 0.25 Avg: 0.27 | |
| RV056- 10HA | , KS, Region 5, 2010 | Found. A Juniper | Grain | TRTSG | 100 | 92.374 V | | 0.688 36.118 | 6357 6.282 0 | <0.010 <0.010 | 0.35 0.41 Avg: 0.38 | |
| RV057- 10HA | Region 5, 2010 | Winter Chawk | Grain G | | 0.364 (0(408) | 87.98 \$^\$ \$ | | 0°33°1 0°342 0°3 | 0.413 | <0.010 <0.010 | 0.78 0.77 Avg: 0.77 | |
| RV058- 10HA | Region 5 | r 🥏 | Grain | | 0.359 | 76,64 | | 0.586 Ø583 | 0.278 0.288 | <0.010 <0.010 | 0.87 0.88 Avg: 0.88 | |
| RV059- 10HA | Qegion 5, | *CB 07 | Grain | TRTS | 0.3 6 5 (0. 0 10) | 88 © 2 | 2° | 0.078 0.101 | 0.943 1.03 | <0.010 <0.010 | 1.0 1.1 Avg: 1.1 | |
| RV060- 10DA | Region 5 | Refetta | Grain O | TRTSG | 0.\$67 (0(3)12) . | 6, 5 11 ³ | 10 | 0.186 0.196 | 1.19 1.13 | <0.010< 0.010 | 1.4 1.3 Avg: 1.4 | |
| | | | | | Y | 90.56 | 15 | 0.119 0.082 | 1.56 1.51 | <0.010 <0.010 | 1.7 1.6 Avg: 1.6 | |
| 4 | | | | | , | 89.09 | 21 | 0.169 0.153 | 1.52 1.35 | <0.010 <0.010 | 1.7 1.5 Avg: 1.6 | |
| | Region 5, 2010 Region 5, 2010 | | | ** | | 89 | 28 | 0.136 <0.010 | 1.31 1.11 | <0.010 <0.010 | 1.5 1.1 Avg: 1.3 | |
| | | | | | | 86.72 | 35 | 0.157 0.172 | 1.60 1.72 | <0.010 <0.010 | 1.8 1.9 Avg: 1.8 | |

Continued on next page...

Tier 2, IIA, Sec. 4, Point 6: Flupyradifurone (BYI 02960)

Table 6.3.2.17-7 (cont'd): Total BYI 02960 Residue Data from Wheat after a Seed Treatment Application with BYI 02960 480 FS or Two Foliar Applications of BYI 02960 200 SL

| | | D1102 | 960 200 | SL | | | | | | | |
|----------------------|---|-----------------|------------------|----------------|--------------------------------------|---------------|--------------------|---------------------------------|--|-------------------------|------------------------------------|
| Trial Identification | Location (City, State, Region, and Year) | Crop Variety | Commodity | Plot Name | Toton Rate Ib a.s./A (Ag a.s./ha) | % Dry Matter | Sampling Interval, | BYI 02960 CL Residue (mg/kg) | DFA Regidue Ong a.s. equiv./kg) | DFEARBesidue | Total By 102960 Residue A |
| | oliar Application | | ı | . 4. | · · · | | | * | \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | | |
| RV061- 10HA | TX, Region 6, 2011 | Fannin | Grain | TROSG | 0.4101 | 89.65 | \$21 \$21 | | ₩.079 <0.050 ₩ | <0.010 <0.010 | 0.35 0.26° A@g: |
| RV062- 10HA | NE, Region 7, 2010 | Traverse | Graffin G | TRÎSG | 0,368 0.413) 0 | 8¥.27 | S21 F S7 | 0.038 0.030 0.030 | 71.37 1.47 2 | ~0.010 (<0.010 ~~ | 1.4 1.5 Avg: 1.5 |
| RV063- 10HA | , ND, Region 7, 2010 | Faller | Grain | TR O SG | (0.409) | &6.36 | Ž ²¹ | Ø.058 0.060 | 9.8114 0.863 | <0.010 <0.010 | 0.88 0.93 Avg: 0.91 |
| RV064- 10HA | , ND, Region 7, 2010 | VOkleen J J | Grain | TRASG | 5368 50.412) | \$6.74 © | 21 | 0.171 ° 0.158 | ©0.446 0.517 | <0.010 <0.010 | 0.63 0.68 Avg: 0.66 |
| RV065- 10HA | Region 7, | OFaller V | Gram & O & | TRVSG | *0,360 \$(0.403) | | ¥ | Ø.074 7 0.074 | 0.596 0.604 | <0.010 <0.010 | 0.68 0.69 Avg: 0.68 |
| RV066- 10DA | NE, Region 7, 2011 | Overland HRX | Grain | TROSG | 0.366 0.410) | 6 6.83 | © 10 | <0.010 <0.010 | <0.050 <0.050 | <0.010 <0.010 | <0.070 <0.070 Avg: <0.070 |
| | | | | | 5 8 | % 3.51 | 15 | <0.010 <0.010 | <0.050 <0.050 | <0.010 <0.010 | <0.070 <0.070 Avg: <0.070 |
| | | | | | Y Y | 88.2 | 21 | 0.118 0.174 | 0.330 0.332 | <0.010 <0.010 | 0.46 0.52 Avg: 0.49 |
| ** | | | | | | 87.73 | 28 | 0.138 0.152 | 0.485 0.522 | <0.010 <0.010 | 0.63 0.68 Avg: 0.66 |
| , 4 4 | NE, Region 7, 2011 | | ~\$ | | | 87.33 | 35 | 0.099 0.089 | 0.375 0.397 | <0.010 <0.010 | 0.48 0.50 Avg: 0.49 |

Table 6.3.2.17-7 (cont'd): Total BYI 02960 Residue Data from Wheat after a Seed Treatment Application with BYI 02960 480 FS or Two Foliar Applications of BYI 02960 200 SL

| | | BYI 02 | 960 200 | SL | | | | | | | Q . |
|---------------------------------------|---|--------------|--------------|---------------------------------------|--------------------------------------|---------------------------------------|--|-----------------------------------|------------------------------------|--|--------------------------------|
| Trial Identification | Location (City, State, Region, and Year) | Crop Variety | Commodity | Plot Name | Total Rate Ib a.s./A (kg a.s./ha) | % Dry Matter | Sampling Interval, | BÝI 02960 ČÞ Besidue (mg/kg) V | DFA Besidue Ong a.s. equiv./kg) | DFEAREsidue (2) (mg.a.s. equiv./kg) (2) | Total By 102960 Residue (1) |
| Grain/F | oliar Application | 1 | | · · · · · · · · · · · · · · · · · · · | <i>*</i> | - TO - | | , O | 3 | | 4 P |
| RV067- 10HA | , AB, Region 7, 2010 | Supurb | Grain | TRASG | \$358 \$0.401) | Z J7.55 | Ž21 | 0.018 0.019 | \$0.050 <0.050 & | <0.010 <0.010 | 0.078 0.079° A@g: |
| RV068- 10HA | TX, Region 8, 2011 | Hatcher | Graffer C | TR18G | 0371 00.416) | \$5.25 | | 0.050 0.051 | 0.050 <0.05 0 | \$0.010 <0.010 | 0.11 0.11 Avg: 0.11 |
| RV069- 10HA | , OK, Region 8, 2010 | Jagger | Gratin | | ©364 (0.408) | & ∏.02 √ | \$21 \$\int_{\inttile\int_{\int_{\int_{\int_{\inttileftint{\int_{\inttileftintetileftint{\inttileftintetileftileftileftileftileftileftileftil | 0.232 | @.314 _{\(\phi\)} 0.345 | <0.010 0.010 | 0.56 0.64 Avg: 0.60 |
| RV070- 10HA | Region 8, 2 | TAM 111 | Grain | TRÍSG | 9366 96.411) 1 | 95 .71 \$ \$ \$ \$ | 1 1 1 1 1 1 1 1 1 1 | 0.026 0.026 5 | ©0.050 >0.050 | <0.010 <0.010 | 0.10 0.086 Avg: 0.093 |
| RV071- 10HA | Regio©8, | Oronado | Grand © & | TRISG | \$0.406) * | \$3.64 0 | 21 7 7 | 9.048 0.033 | <0.050 <0.050 | <0.010 <0.010 | 0.11 0.093 Avg: 0.100 |
| RV072- 10HA | Region 8, | TAM 203 | Grafin | TROSG | 0.959 Q0.402} % | 89.35 7 | 2 1 | 0.163 0.205 | 0.051 0.053 | <0.010 <0.010 | 0.22 0.27 Avg: 0.25 |
| RV073- 10DA | Regions, 2011 | Doans | Graily | TR¶8G | 0959 (0.402) (0.402) | 93.47 | 10 | 0.105 0.102 | <0.050 <0.050 | <0.010 <0.010 | 0.16 0.16 Avg: 0.16 |
| . 4 | | | | | Y Y | 94.16 | 15 | 0.106 0.075 | <0.050 <0.050 | <0.010 <0.010 | 0.17 0.13 Avg: 0.15 |
| | | | Q Z Z | | | 94.21 | 21 | 0.069 0.083 | <0.050 <0.050 | <0.010 <0.010 | 0.13 0.14 Avg: 0.14 |
| , , , , , , , , , , , , , , , , , , , | | | Ş | | | 93.45 | 28 | 0.066 0.078 | <0.050 <0.050 | <0.010 <0.010 | 0.13 0.14 Avg: 0.13 |
| | Region 8, 2011 Region 8, 2011 | | | | | 95.06 | 35 | 0.344 0.074 | 1.03 <0.050 | <0.010 <0.010 | 1.4 0.13 Avg: 0.76 |

Table 6.3.2.17-7 (cont'd): Total BYI 02960 Residue Data from Wheat after a Seed Treatment Application with BYI 02960 480 FS or Two Foliar Applications of

| | | BYI 02 | 960 200 | SL | | | | | | | Q° " |
|----------------------|--|--------------|-----------|-----------|--|---------------------------|---------------------------------|----------------------------------|------------------------------------|---|--|
| Trial Identification | Location (City, State, Region, and Year) | Crop Variety | Commodity | Plot Name | Total Rate Ib a.s./A (kg a.s./ha) | % Dry Matter | Sampling Interval, Saays) De | BÝI 02960 🖐 Besidue (mg/kg) 🚓 | DFA Besidue Ong a.s. equiv./kg) | DFEARRESidue (2) Img.a.s. eqqiy./kg) / | Total BM 02960 Résidue 4, ting a.s. equiy (kg) 49 |
| Grain/F | oliar Application | 1 | | l a | ************************************** | | | , ® | 8 | | 4 |
| RV074- 10HA | Region 11, 2010 | Penawawa | Grain | TRASG | \$369 \$(0.414) \$ | 88.88 , , , , | | 0.012 0.021 | Ø.541 0.547 ** | <0.010 <0.010 0 | 0.56 0.58° A@g: Q:57 |
| RV075- 10HA | , SK, Region 14, 2010 | Infinity | Grafter | TRTSG | 9371 30.416) 30.416) | \$2.03 | | 20.749 20.708 | 2.03 1.88 2 | 0.029 0.026 | 2.8 ^d 2.6 Avg: 2.7 ^e |
| RV076- 10HA | , MB, Region 14, 2010 | Infinity | Gratin | TRASG | 93 61 9 .405) | Ş | 21 7 7 7 | 0.255 | ©.075 ₄ 0.894 | 0.079 <0.010 | 0.24 1.2 Avg: 0.70 |
| RV077- 10HA | , MB, Region 14, 2010 | Ğlenn | Grain | TRASG | 9369 9.414) 5.414) | 76.9 \$ \$ \$ | Z ₁ | 0.020 0.020 4 | ©.264 0.264 | <0.010 <0.010 | 0.30 0.29 Avg: 0.30 |
| RV078- 10HA | Region 14, | Glenn | Gränd | TKTSG | ~0,856 ,((0.399) * | 63 .89 | | 9.032 0.030 | 0.179 0.175 | <0.010 <0.010 | 0.22 0.21 Avg: 0.22 |
| RV079- 10HA | Region 14, 2010 | | Graff | TR®G | 0.972 (0.417) | A | 2 1 | 0.361 0.375 | 2.07 2.27 | 0.026 0.029 | 2.5 2.7 Avg: 2.6 |
| RV080- 10HA | Region 4, 2010 | Infinity | Grain | TR 108G | 0971 (0.415) (0.405) | | 21 | 0.251 0.196 | 1.00 0.958 | 0.019 0.015 | 1.3 1.2 Avg: 1.2 |
| RV081- 10HA | AB, Region 14, 2010 | Superby (| Grafin | TRASG | ©366 40.410) | 59.17 | 21 | 0.102 0.099 | 0.695 0.649 | <0.010 0.011 | 0.81 0.76 Avg: 0.78 |
| | Region 44, 2010 AB, Region 14, 2010 AB, Region 14, 2010 AB, Region 14, 2010 AB, 2010 | | | | | | | Сог | ntinued | on next | page |

Table 6.3.2.17-7 (cont'd): Total BYI 02960 Residue Data from Wheat after a Seed Treatment Application with BYI 02960 480 FS or Two Foliar Applications of BYI 02960 200 SL

| | | B1102 | 960-200 | SL | | | | | | | |
|----------------------|---|----------------|------------|-----------|--------------------------------------|--------------------------|--|--|--|---|--|
| Trial Identification | Location (City, State, Region, and Year) | Crop Variety | Commodity | Plot Name | Total Rate Ib a.s./A (kg a.s./ha) | % Dry Matter | Sampling Interval, Saays) 200 | BÝI 02960 CE Besidue (mg/kg) | DFA Besidue Ong a.s. equiv./kg) | DFEARRESidue | Total By 102960 Residue |
| Grain/F | oliar Application | 1 | | <i>.</i> | ۰ | | | , ® | 2 | ~ * * * | |
| RV082- 10DA | AB, Region 14, 2010 | Superb | Grain | | | \$9.3 \$9.3 \$6.76 | 515 100 121 128 128 128 128 128 128 128 | 0.425° 0.0.285° 0.097° 0.061° | ©.792° 0.675° 0.759° 0.720° 0.686° | 0.017° 0.014° 0.010° <0.010° <0.010° <0.010° <0.010° <0.010° | 0.95 0.86 ° 0.91 1.2 0.83 Avg: 1.0 0.77 0.87 Avg: 0.82 0.78 0.79 Avg: 0.78 0.79 Avg: 0.76 Avg: |
| | eed Preatment | | Gain | 8 | 10 | Q1 | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ | | | | |
| RV056- 10HA | Region 5, 2010 | Found: Juniper | | TRTST | (0.128) | <u>.</u> | | <0.010 <0.010 | 0.538 0.641 | <0.010 <0.010 | 0.56 0.66^f Avg: 0.61^g |
| RV062- 10HA | Region 7, | 0, 2, | (Scain | TRATST | (0.1139 | 71.14 | 0 | <0.010 <0.010 | 0.276 0.266 | <0.010 <0.010 | 0.30 0.29 Avg: 0.29 |
| RV070- 10HA | Region 8, 2010 | TAMOI1 | Grain V | TEXTST'S | 0.091 (0.102) | 95.15 | 0 | <0.010 <0.010 | 0.069 0.069 | <0.010 <0.010 | 0.089 0.089 Avg: 0.089 |

- Sampling interval is the interval between ast appocation and the sampling date.
- Total BYI 00060 residue is the sum of BYI 02960, DFA, and DFEAF residues in parent equivalents. Residue measurements below the accityte Low were summed into the total BYI 02960 residue value as the analyte LOQ value. These totals reposent the apper limit of what the residue levels might be.
- c Sample analyzed twice average value reported here.
 d Maximum soldue found in grain from the TRTSG plot.
 e HAFT residue found in grain from the TRTSG plot.
- Maximum residue found in grain from the TRTST plot.
- HAFT residue found in grain from the TRTST plot.
- TRTSG = Treated plot receiving two foliar applications of BYI 02960 200 SL
- TRTST = Seed treatment trials with BYI 02960 480 FS



Conclusion

Twenty-nine field trials were conducted to measure the magnitude of total BYI 02960 residues in/on o wheat grain following two foliar spray applications of BYI 02960 200 SL. In parallel, three of these field trials also included plots to measure the magnitude of BYI 02960 residues in grains following the planting of seed treated with BYI 02960 480 FS.

Table 6.3.2.17-8: Summary of Residue Data for Total BYI 02960 from Wheat

Summary of Residue Data for Total BYI 02966 from Wheat Table 6.3.2.17-8:

| Commodity | Plot Name ¹ | Total Application Rate lb a.s/A (kg a.s./ha) | PHI Cotal BAI 0500 Kesidne Tevels (bbm) Maxat M |
|----------------|------------------------|---|--|
| Wheat Grain | TRTSG | 0.356 to 0.378 (0.399 to 0.423) | 2 0.64 0.74 0.67 |
| Wheat Grain | TRTST | 0.091 to 0.114 (0.102 to \$\mathcal{P}\$128) | ECH 6 6 0.089 0.66 NAS 0.60 0.33 0.24 |

- 1 TRTSG = Treated plot receiving two faljar applications of BYI 02960 200 SL for the collection of grain samples at a target PHI of 21 days TRTST = Seed treatment trials with BYI 02960 480 s for Wilection of grain samples
- 2 HAFT = Highest Average Field Frial
- calculated on the base of residue values at the HI
- Sampling day showing highest residue
- Not applicable, since no decline trials were conducted after

ECH = Earliest commercial harves

Samples collected from plots following two foliar opplications had generally higher total BYI 02960 residues than samples collected from see of treatment plots.

The maximum total By 02960 residue detected in grains amounted to 2.8 mg/kg at the PHI of 21 day. Samples collected from decone trials indicated that the total BYI 02960 residues did not always peak at the PHL-in three of four decline trials, maximum residues appeared after the PHI; in one trials at 28 days after the last treatment and in two trials at the last sampling event (35 days after the last treatment). However the residue concentrations were in the same range as those at the PHI indicating that a residue plateau was reached at the end of the study. Moreover, the residue levels detected after the PHI were all below the overall righest residue concentration detected at the PHI.

The residue data provided for wheat are suitable for regulatory purposes.



IIA 6.3.2.18 Coffee

Residue data from CENTRAL AND SOUTH AMERICA

BYI 02960 is to be registered in North, Central, and South America for use as a soil drench application followed by three foliar spray applications on coffee. All countries support the same worst-case use pattern as summarized in Table 6.3.2.18-1, except for Brazil. Additional coffee trials conducted in Brazil are reported separately in this section, subsequent to the data presented for the trials in Mexico. and Guatemala. The Brazilian use pattern is slightly different, but shows the same application rates.

A total of eleven trials were conducted in coffee. The studies are described below.

Table 6.2.2.18.1. Torget Use Potterns for the Application of PVI (2006) on Coffee.

Target Use Patterns for the Application of BYI \$2960 and Table 6.3.2.18-1

| | | Target 1 Formulated Product (fp) | | Rate / App | lication | Ø ^ | | A | | | |
|-------------------|-------------|----------------------------------|---------|-----------------|----------|--------------------|--------------------|---------------|-----------|------------------|-------------------|
| | | Form | ulated | Active Su | ıbştanc | e (aks.) | Target App. | Target | | Appl Solution | ication Volume |
| Test Substance | App. No. | fl oz /A | mL/ha | Name of | a.s./ | kg a.s./ha | Interval (Days) | Pari Pays) | munity of | mk/j plant | L/ha |
| | Drenc | h Applica | ation ~ | Ų 💥 | W | | (V) | Š, O | | % | |
| | 1 | 41.1 | 3,000 | «BYI ⊕2960.≈ | 0.535 | \$ 0.600∉ | » NA ¹ | | None | 45-55 | 75-500 |
| BYI | Foliar | Applicat | iồns 🙎 | i W | | a.Y | | | | GPA | L/ha |
| 02960 SL 200 | 2 | 13.4 | 1,000 | By71 202960 | 0.178 | ©.200 ₂ | 90 0 | | 0.25% | 32-53 | 300-500 |
| | 3 | \$3.7 \$3.7 | Q,000, | BYI 02960 | 0.178 | 0.200 | J94 (| J 14 J | 0.25% | 32-53 | 300-500 |
| | 40 | 135 | 1,000 | ® ¥I ⟨ | 0.1780 | 0.200 | 140 | ® | 0.25% | 32-53 | 300-500 |

| <i>></i> | |
|--------------------|--|
| 1 NA = Novapplicab | |
| Report: | KIIA 6:3.2.18/01; 26/2 |
| Title: | BYJ 02960 290 SL Magnitude of the Residue in/on Coffee; U.S., Canada and |
| <u> </u> | E.O. Import Tolerances O O |
| Report No & | RARVE 974, dated Juno 27, 2002 |
| Document No. | M-433257-01-1 |
| Guidelines: | US EPA Residue Chemistry Test Guidelines OPPTS 860.1500, Crop Field Trials |
| 4 | Zanada PMRA DACO 7.4.1, Supervised Residue Trial Study |
| | PMRX DAC 7.4.2 Residue Decline |
| | OECD: Guideline For the Festing of Chemicals, 509, Crop Field Trial, |
| \$ | A Monted Sept. 7, 2009. |
| GLP | Yes & 4, & |
| | y |

Severatield that's located in Colombia, Guatemala and Mexico, are included in this study. Four trials performed in Guatemala and Mexico are reported in this interim report with three trials yet to be conducted in Colombia.

BYI 02960 200 SL is a soluble concentrate formulation containing 200 g BYI 02960/L. Four additional coffee trials conducted in Brazil are reported separately (cf. KIIA 6.3.2.18/02).

| Table 6.3.2.18-2: | Trial Numbers and | 10 1 1 | T | C DITT | 0.00 | C CC |
|-------------------|-------------------|--------|---|--------|------|------|
| | | | | | | |
| | | | | | | |
| | | | | | | |

| The number and lo | cation of field trials cor | nform to the guid | dance given by the EP | PA (Table 6.3.2.18-2). |
|-------------------|----------------------------|-------------------|-----------------------|------------------------|
| Table 6.3.2.18-2: | | | ntions for BYI 0296 | .v .d., |
| | Growing Region | í | Submitted | Requested |
| | Colombia | | | |
| | Guatemala | , C | 4 | Q2 0 V |
| | Mexico | | | |
| | Total | L O° | S D S | |

- a All of the four trials are decline trials and were performed to meet Horizonte requirements.
- Based upon the NAFTA Guidance Document of Pata Reguirements for Tolerances on Imported Commodities in the United States and Canada, December, 2005. The number and location of field trials was determined as a result of analyzing trade flow data as detailed in the Fuidance Document

Material and Methods

Soil drench applications ranged from 0.535 to 0.543 lb BYI 02960/Application (0,600 to 0.609 kg BYI 02960/ha/application). Individual foliar application rates ranged from 0.17 to 0.181 lb BYI 02960/A/application (0.195 to 0.203 kg BYI 02960/ha/application) Seasonal total application rates ranged from 1.668 to 1.074 b BY 102960/A (1.120 to 1.204 kg BY 1.02960/ha). The drench applications were made at 114 to 118 days before hanvest approve stages ranging from BBCH 72 to 78 (BBCH 72, 20% of fruit have reached that size, to BBCH 78, 80% of fruits have reached final size). Foliar applications were made at BBCH 77 to 88 BBCH 77; 70% of fruit have reached final size, BBCH 88; nearly all fruit are fully ripe). The interval between the drench and foliar applications was 86 to 91 days and interval between the foliar applications was 12 to 14 days.

The volume of the soil drench applications ranged from 130 to 24.6 GPA (126 to 230 L/ha) and the foliar application spray voluties ranged from 39.2 to 44.3 GPA (367 to 414 L/ha). All foliar applications were made using ground based equipment. Methylated seed oil (MSO) or Dyne-Appe were used a adjugent in all of the foliar applications at a rate of 0.25% (v/v).

Trial Site conditions, including soil characteristics are summarized in Table 6.3.2.18-3. Study use patterns are summarized in Table 6.3.2.18-45



Trial Site Conditions for BYI 02960 on Coffee Table 6.3.2.18-3:

| Trial | Trial Location (City, | Soil C | Characte | eristics ^a | | Meteorological Data | | |
|----------------|---------------------------|-------------------|-------------------|-----------------------|---|-------------------------|--------------------------|--|
| Identification | Country/State, Year) | Туре | ОМ | pН | CEC (meq/ 100g) | Total Rainfall in. (mm) | Temp. Range F (°C) | |
| RV232-11DA | , Guatemala, Guatemala | Sandy Clay | 3.7 | 5.2 | 17 | 6.8 (C) (1,728) | 50-95 (\$9-35) | |
| RV233-11DA | , Guatemala, Guatemala | Sand Clay Loam | 4.04 | 5.7 Q | O C | Q6.8 (1,730) | 57/91 (14/33) | |
| RV234-11DA | De Mexico, | Say 2 | 7.74 7.74 Q | 54 | | ×1.3 ×1.3 × (331) | 59-84 (15-29) | |
| RV246-11DA | . DoMexico | Logary Sand | | | \$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | 2.2 O (551) | 57-88 (14-31) | |

- a Abbreviations used: %OM = percent organic matter & EC = Cation exchange capacity. Data are for the interval of the proof of first application through the month of last sampling. Meteorological data were obtained from nearby government weather stations.

Study Use Partern for BYI 0 960 209 SL on Coffee

| | ite, Ond Year R. | | , W | | \sim | 2/ N | | al | | Ş |
|----------------------|------------------|-------------------------------|------------|----------------|------------------|-------------------------------------|------------------------------|-----------------------------|---------------------------------------|--------------------|
| Trial Identification | (City, Sta | °≈,75 | Take Water | | Growth's | Actual Spray Volume GPA (L/ha) a | \ | Retreatment Interval (days) | Rate 1b a.s./A s./ha) ^a | Tank Mix Adjuvants |
| Trial 1 | | | ر کانی | , © | Thang. (BBCH) | Actual Spra GPA (L/ha) | Rate lb a.s. (kg a.s./ha) | Retrea (days) | Total Rate (kg a.s./ha) | |
| RV232- | | 93YI 9 29 60 SI 200 | TR TD | Soil @ | BBCH | 24 | 0.535 | NAb | 1.071 | NA ^b |
| 11DA | Guatemal | SI 200 | | drench | 78 | (227) | (0.600) | | (1.201) | |
| 4 | 2011 | | | Soil of drened | ВВСН | 42 | 0.178 | 91 | | MSO 0.25% |
| | | | 9) × | @roadcast | 79 | (394) | (0.199) | | | V/V |
| | | | v Q | | ВВСН | 44 | 0.179 | 13 | | MSO 0.25% |
| | | | | | 80 | (412) | (0.201) | | | v/v |
| ~ ~ | | | | | ввсн | 39 | 0.179 | 12 | | MSO 0.25% |
| | | W ^v | | | 88 | (367) | (0.201) | | | v/v |



Table 6.3.2.18-4 (cont'd): Study Use Pattern for BYI 02960 200 SL on Coffee

| | (.) | | | | App | lication | 1 | | | 0 0 |
|----------------------|---|----------------------------------|-----------|-------------------------|--------------------------------------|---|--|----------------------|------------------|--------------------------------------|
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Method | Timing Growth Stage (BBCH) | Actual Spray Volume | Rate Ib ass./A (kg a.s./ha) | Retreatment Interval | otal Rafe Ib a | TankaMix Adjugants Re |
| RV233- 11DA | Guatemala 2011 | BYI 02960 SL 200 | TRTD | Soil dreach | BBCH BBCH BBCH BBCH BBCH | 435 (406) | 0.535 0.600) 0.78 0.199) 0.188 (0.178) 0.178 (0.178) (0.178) | A A b | 1,068 Q1.197) | MSO 0.25% V/V MSO 0.25% V/V |
| RV234- 11DA | Mexico 2011 | BY192960 SL 200 | TRTD O | Soil drench Foths | ₽₿ĈΉ | (370) (370) (126) (126) (42) (394) | Ø9.540 | NAb | ©.070 (1.200) | NAb Dyne-Amic 0.25% |
| | 2011 | () () | | | BBCH 79 BBCH | 45 (295) | 0.178 (0.199) | 14 14 | | Dyne-Amic 0.25% Dyne-Amic 0.25% |
| RV246- 11DA | * | BYØ02960° SL 200 | TRTD | SOÎ drench & | 1848°CH. , 72 ⊴ | ©21 (195) | 0.543 (0.609) 0.176 | NA ^b | 1.074 (1.204) | NA ^b |
| | | | | broadcast | BBCH 81 | | 0.176 (0.197) 0.174 (0.195) | 12 | | Dyne-Amic 0.25% Dyne-Amic 0.25% |
| * | | | | | BBCH 85 | 44 (414) | 0.181 (0.203) | 13 | | Dyne-Amic 0.25% |

a NA = Not applicable \(\square\)

TRTD = Treated plot receiving one soil drench application followed by three foliar applications of BYI 02960 200 SL

Duplicate composite samples of coffee cherries were collected from the treated plots at 0, 7, 14, 21 and 28 days after the last application. The target pre-harvest interval was 0 days.

Single composite samples of coffee cherries were collected on the same day that the target 0-day PHI samples were collected from the treated plots.

Immediately after harvest the coffee cherries were processed using the wet processing method typical for the region in which the trials were conducted. Using readily available hand operated equipment, the outer husk of the coffee cherries was removed and the remaining coffee beans were washed and allowed to ferment overnight in water to allow the mucilage (thin protective membrane surrounding the coffee beans) to loosen and be removed the next day by washing. For trial RV234-11DA coffee cherries were not completely ripe and additional time was required to remove all of the husks, therefore not all husks were removed on the day of harvest. The coffee beans were spread out and allowed to air-dry in a protected area to avoid contamination. The coffee beans were turned regularly to promote drying. After the coffee beans, were allowed to dry to compercial dryness (8-13 days) the parchment (third layer of protective coating) was removed using hand operated equipment to yield the commodity, dried coffee bean, green. The dried coffee beans were placed into property labelled residue sample bags for shipment to the laboratory.

The residue(s) of BYI 02960, DFA, and DFEAF were quantitated by HPEC-MS/MS using stable isotopically labelled internal standards. The individual analytic residues were summed to give a total BYI 02960 residue. Residue measurements below the analytic LOQ were summed into the total BYI 02960 residue value as the analytic LOQ value.

Findings

Concurrent recoveries of BYI 02960, DDA, and DFEAF were measured with each set of samples to verify method performance. All recoveries were corrected for any interferences in corresponding controls. The overall mean of the occupies at each fortification level was within the acceptable range of 70 to 110%, and the standard deviation (SD) values were below 30% (Luble 6.3.2.18-5).

Table 6.3.2.185: Summary of Recoveries of EVI 02950 from Coffee

| Crop Matrix | Analyte | Spile Lovel (ppm) | Sample Size | Recoveries (%) | Mean Recovery | Std Dev (%) |
|----------------|--------------------|-------------------------|----------------|--------------------------------|---------------|----------------|
| | | 0.0% | ~ 7 J | 85,®1, 84, 109, 90, 93, | 92 | 10 |
| | B ® I 0296€ | 0.5 | | 92, 90 | 91 | NAb |
| | , | 1.08 | 2 3 × 5 4 | 86, 84, 86 | 85 | 1 |
| Coffee. | Z, | 40.050 | | 95 95 95 | 92 | 5 |
| bean, green | DFA (| 0.560 | | 83, 82 | 82 | NA^b |
| green | | \$.000 × | 3 ³ | 81, 82, 84 | 82 | 1 |
| | DFEAG. | 0.01 | 7 | 103, 89, 74, 97, 76, 77, 91 | 87 | 11 |
| | ØFEAG | 0.5 | 2 | 89, 87 | 88 | NA^b |
| |) a | 1.000 | 3 | 89, 90, 89 | 89 | 1 |

- a Mean Recovery = mathematical average of all recoveries.
- b No standard deviation where $n \le 2$.

The freezer storage stability study indicates that BYI 02960 residues were stable in coffee bean during frozen storage for at least 18 months prior to analysis. The maximum storage period of frozen samples in this study for BYI 02960 was 115 days. A summary of the storage conditions are shown in Table 6.3.2.18-6.

Table 6.3.2.18-6: Summary of Storage Conditions for Coffee

| Residue Component(s) | Matrix (RAC) | Maximum Averaĝe Storaĝe Temperature (PC) ^a | Actual Storage Ouration months (days) | Anterval of Demonstrat@ Storage Stability months (days) |
|-------------------------|--------------------|---|---|---|
| BYI 02960 | Coffee bean, green | | (115) | 18 (560) |

- a The maximum average storage temperature is from the time of sample receipt at BRP thitil sample extraction and is the maximum of all average freezer temperatures at BRP and yxant. While preparing for sample analysis, the samples were maintained in a laboratory freezer.
- b The storage duration is the time from field sampling through the last sample expaction.
- and and State 2010. Storage stability of BY 02960 diffluor accepting acid, and diffluoroethyl-amino-furanone in plant matrices. Bayer CropScience Report No. 1878 VP000, amended version including 18-month data (KIIA 6.1.1/01).

The total BYI 02960 residue data for coffee beans following a single soil drench and three subsequent foliar application(s) of BY 02960 200 St. are shown in Table 6.3.248-7.

Table 6.3.2.18-7: Total BYI 02960 Residue Data from Coffee Beans after a Single Soil Drench and Three Foliar Application(s) of BYI 02960 SL

| Trial Identification | Location (City, State, Region, and Year) | Rot Name & C. | Cropogri | Som33 modity | Eptal Rate Lb a.s./A (kg ai/ha) | % Dry Matter " O. | | BYI 02960 Residue (mg/kg) | DFA Residue (mg a.s. equiv./kg) | DFEAFResidue (mg a.s. equiv./kg) | Total BYI 02960 Residue (mg a.s. equiv./kg) ^b |
|----------------------|--|---------------|----------|--------------------|------------------------------------|-------------------|----|------------------------------|------------------------------------|-------------------------------------|---|
| RV232- & | | PRTD C | | Coffee bean, | 1.071 (1.201) | ND | 0 | 0.0853 0.0787 | 0.132 0.230 | <0.010 <0.010 | 0.228 0.318 |
| | Guatemala | WRIDA | | Coffee Sean, green | | | | | | | Avg. 0.273 |
| | 2011 | | | 7 | | ND | 7 | 0.0976 0.109 | 0.140 0.0940 | 0.0128 0.0146 | 0.251 0.218 |
| | | | | | | | | | | | Avg. 0.234 |
| | Region Guatemala, 2011 | | | | | ND | 14 | 0.114 0.131 | 0.0528 0.0627 | 0.0148 0.0152 | 0.181 0.209 |
| | | | | | | | | | , | | Avg. 0.195 |



Table 6.3.2.18-7 (cont'd): Total BYI 02960 Residue Data from Coffee Beans after a Single Soil Drench and Three Foliar Application(s) of BYI 02960 SL

| | | una | Timee Fon | иг түрт | oution(5) | 01 D 1 | 1 02 > 0 | UDL | | | 0 | _ |
|----------------------------|---|-----------|--------------|-------------|-------------------------------------|--|---|--------------------------------------|------------------------------------|--|---|---|
| Trial Identification | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Com33modity | Cotal Rate Lb a A/A (kg a.s./ha) | % Dry Matter ^a | Sampling Intervall | BYI 02960 Residue (mg/kg) | ŶFA Residue (mg®, equiv./kg) | DEEA FRESIQUE (mg ass. equiv./kg) | Total BY 1 029 60 Residuk F 5 (mg a. S. equiv./kg) b | |
| RV232- 11DA (cont'd) | Region Guatemala , 2011 | TRTD | Catuaí | green | ### (1.201) | ND ND ND ND ND ND ND ND ND ND ND ND ND N | 28.3 | 0.143 | 0.100 0.0008 0.121 0.6894 | 0.623 | ≪Avg. 0.228 | - |
| RV233- 11DA | Region Guatemala, 2011 | | | | | Õ | \$\frac{1}{2}\frac{1}{2 | 0x0451 0x0451 0x0399 | 0.018 0.018 0.0974 | <0.010 <0.010 <0.010 <0.010 <0.010 | 0.158 0.185 Avg. 0.171 0.163 0.147 Avg. 0.155 0.189 0.136 Avg. 0.163 | |
| | | | | | | NE ND | 28 | 0.0628 0.0674 0.0524 0.0502 | 0.135 0.127 0.119 0.104 | <0.010 <0.010 <0.010 <0.010 | 0.208 0.205 Avg. 0.206 0.181 0.164 Avg. 0.171 | |
| | | | | | | | | Co | ontinued | on next | page | |



Table 6.3.2.18-7 (cont'd): Total BYI 02960 Residue Data from Coffee Beans after a Single Soil Drench and Three Foliar Application(s) of BYI 02960 SL

| Trial Identification | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Com33modity | Cotal Rate Lb a / A (kg a.s./ha) | % Dry Matter ^a | Sampling Intervall | BYI 029@\ Residue (mg/kg) | MFA Residue (mg@keguiv./kg) | DEEAFRESIQUE (mg ass. equiv./kg) | VARION TOTAL BY 1 029 60 Residue is 0.5 (400 a.s. equiv./kg) by |
|----------------------|---|-----------|---------------|-------------|-------------------------------------|---------------------------|--------------------|---|--------------------------------|--------------------------------------|---|
| RV234- 11DA | Region Mexico, 2011 | TRTD | Costa Rica | greets | | | | 0.188 0.163 0.359 0.459 0.402 | 'o' \(\frac{7}{2}\) | | 0.720 6.833 0.925 Avg. 0.879 0.341 0.538 |
| | | | | | | ND. | & 21 D | 0.144 \$0.13\$ | 0.330 0.514 | <0.010 0.0185 0.0151 0.0187 | Avg. 0.400 0.662 0.575 Avg. 0.619 0.468 0.644 Avg. 0.556 |
| | | | | | | | | Co | ontinued | on next | page |



Table 6.3.2.18-7 (cont'd): Total BYI 02960 Residue Data from Coffee Beans after a Single Soil Drench and Three Foliar Application(s) of BYI 02960 SL

| | | | | | | | | | | | 0 |
|----------------------|---|-----------|--------------|---------------|-------------------------------------|---------------------------|-----------------------------|------------------------------|---------------------------------|--------------------------------------|--|
| Trial Identification | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Com33modity | Cotal Rate Lb a A/A (kg a.s./ha) | % Dry Matter ^a | Sampling Intervall (days) b | BYI 02960 Residue (mg/kg) | OFA Residue (mg & equiv./kg) | DEEA FResidue (mg ass. equiv./kg) | Total BY 1 029 (b) Residues 25 20 (c) 10 (c) |
| RV246- | | TRTD | Caturra | Coffee | | ND | | B 4 | 0.120 0.N4 | 0.0142 | 0.257 |
| 11DA | | | | bean, Q green |) A | | | 0.117 | 0.114 | 0.01/35 | |
| | Region | | | | | | | | \$ 1 | | Avg. 0.251 |
| | Mexico, 2011 | | \$ | | | ND | 7.4 | 0.246 | 0.126 0.133 | 0.6284 | |
| | | | | | | ND | | 0.242 | 03733 | √ 0,0304∠ | 9.400 0.405 Avg. |
| | | | | 10° × | | | | | 0 13 0 100 % | | 0.403 |
| | | | ~~ »- | | | | | 0.499 0.362 | 0913 | 0.0547 | 0.607 |
| | | \$ | | ~ · · · · | | | , P | 0:362 © | Ø.100% ○ | √ 0.0432 | 0.506 Avg. |
| | | , Q | | | | | | - 7 | Š | | 0.556 |
| | | | | | | ÑD | © 20 | 0.462 | \$0.115 0.123 | 0.0644 | 0.642 |
| | Q) | ~ ~ | | v Š | | | | | 0.123 | 0.0600 | 0.624 Avg |
| | | | | | | | \$\frac{1}{26} | | | | Avg. 0.633 |
| | | | | | j d | ND | 2 6 | 0.588 | 0.306 | 0.0898 | 0.984 ^d |
| | ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ ~ | | ک ک | | F | | 26 20 20 | 0.516 | 0.284 | 0.0948 | 0.895 Avg. |
| | | | | | | , | | | | | 0.939e |
| | ¥ | - Y | | W. " | , | | y | | | | |

- a Dry Matter not determined (ND).
- b Sampling interval is the interval between last application and the sampling date.
- c Total BYI 02960 residue is the sum of BY 02960 DFA and DFF residue in parent equivalents. Residue measurements below the analyte LOO were summed into the total BYI 02960 residue value as the analyte LOO value. These totals represent the upper limit of what the residue levels might be.
- d Maximum residue found on coffee bean, goen occurred at a PHI of 26 days.
- e Highest average field total (HAFT) residue found in coffee bean, green occurred at a PHI of 26 days.

QConclusion

Four field decline trials were conducted to measure the magnitude of total BYI 02960 residue in/on coffee bear, green, following a single soil drench and three subsequent foliar spray applications of BYI 02960 200 SL. The total BYI 02960 residue data for coffee beans are summarized in Table 6.3.2 18-8.

| Table 6.3.2.18-8: | Summary of Residue Data for Total BYI 02960 from Co | offee |
|--------------------|---|-------|
| 1 4010 0.5.2.10 0. | summary of residue but for rotal Bir object from co | ,1100 |

| | , A | | | | Total | BYI 029 | 60 Resid | ue Levels | s (ppm) ¹ | e c |
|--------------|-----------|---|------------|---|-------------|--------------------|--------------------|------------------|----------------------|----------|
| Commodity | Plot Name | Total Application Rate lb a.s./ (kg a.s./ha) | PHI (days) | u | Min | Max | HAFT ² | A Kapan Meman | Mean | Standard |
| | | | 0 | 4 | 0.158 | 0.870 | 0.720 | , 0.342 | 0.354 | 0244 |
| Coffee bean, | | | 7 | 4 | 0.147 | [®] 0.925 | 0.879 | 0.326 | 9.418 £ | 0.302 |
| green | TRTD | 1.068 to 1.074 (1.197 to 1.204) | 13-14 | 4 | 0.136 | 0.607 | © .556 | 0.275 | 0.358 | 0487 |
| | | | 20-21 | 4 | 2 05 | 0.662 | 0.633 | 0360 | 6 411 | 0.213 |
| | | | 26-28 | 4 | 0.164 | 0,984 | Ø.939 ₄ | 00.37 | 0.482 | 0.225 |

The data of the four decline trials showed tather similar total BYI 02960 residues independent from the sampling time. The overall maximum residue was detected in a sample colleged 26 days after the last application which amounted to 058 mg/kg. However, the residue maximum was reached in each trials at a different day, no conclusive residue pattern was observed

Residue data from BRA

BYI 02960 is to be registered in Brazo for soil and foliar treatment use in/on coffee. The most critical use pattern for Brazil is summarized in Table 6.32.18-9. This use pattern is nearly identical with the worst-case use pattern in office tested in Mexico, Columbia and Gybremals (cf. KIIA 6.3.2.18/01).

Most critical Use Patterns for the Application of JEVI 02960 on Coffee in Brazil Table 6.3.2.18²⁹

| ES . | Y Y | Formulated Broduct (fp) | Active St |) ıbsta n c | ¥ (1) | Target | | | | ication n Volume |
|-------------------|--------|----------------------------|---|-----------------------|--------------|---|-------------------------|---|--------------|---------------------|
| Test Substance | App. | fl og A mL | Name of | | € Kg | Opp. Jaterval (Days) ^a | Target PHI (Days) | Adjuvant /Additive (%) ^b | mL/ plant | L/ha |
| | Drencl | n Application | | (Continue) | (U) | | | | | |
| | 1 | 41.1 3,000 | B\V\\\ \text{\$\partial}\chi BV\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | 535 | 6 600 | NAc | 118 | None | 50 | NA ^c |
| B Y I | Foliar | Applications | | | 1 | | | | GPA | L/ha |
| 02960 SL | 2 @ | [4 \ |) UXX9/00 | Ø¥78 | 0.200 | 90 | 30 | 0.25% | 43 | 400 |
| | | 13/.7 | ₩ 02900 | 0.178 | 0.200 | 15 | 15 | 0.25% | 43 | 400 |
| | 4,3 | 13.7 1,00 | 'W DVI | 0.178 | 0.200 | 15 | 1 | 0.25% | 43 | 400 |

Single will drenc@application (Application No. 1) made at 90 days before the first foliar application (Application No. 2).

Adjivant: Methylated Soybean Oil.

NA = Not Applicable

| Report: | KIIA 6.3.2.18/02; 2012 |
|-------------|---|
| Title: | Determination of residues of BYI 02960 and its metabolites, in coffee after drench application at the base of the plants, followed by foliar application of BYI 02960 (200 %) in field trials in Brazil |
| Report No & | I11-008, dated March 12, 2012 |
| Document No | M-427469-03-2 |
| Guidelines: | Resolution of Collegiate Board of Directors RDC No. 216 of December 2006,15 th RDC No. 4 of January 2012,18 th National Health Surveillance Agency – ANVISA, from the Ministry of Fealth |
| GLP | Yes & O & O & |

Four trials were conducted to measure the magnitude of BYI 02960 residues in on coffee bean, following a single soil drench application followed by three broadcast foliar spray applications of BYI 02960 200 SL.

BYI 02960 200 SL is a soluble concentrate formulation containing 200 g BYI 02960/L. The location of field trials are presented in Table (\$2.2.18-70). Additional coffee trials conducted in Mexico, Colombia, and Guatemala are reported separately (Bayer Crop Science Report No. RARVP0/4 (KIIA 6.3.2.18/01).

Table 6.3.2.18-10: Trial Numbers and Geographical Locations for BXX 02960 in/on Coffee

| Identification of Field trial | Yest Unit of the Field trial Name and address of the location |
|----------------------------------|--|
| I11-008-01 | Grazil Gr |
| I11- 008 -02 | , Brazil |
| I11-008-04 | , Braživ |
| I11-008 -0 5 | , Brezil |

Material and Methods

Drench application was carried out using a pulverization spear nozzle in Trials II1-008-01, II1-008-02, and II1-008-05. In Trial III-008-04, the test substance was applied directly at the base of the plants, using a graduated beater.

Soft drengt applications ranged from 0.596 to 0.606 kg BYI 02960/ha/application. Individual foliar application rates ranged from 0.170 to 0.214 kg BYI 02960/ha/application. Seasonal total application rates ranged from 1.188 to 1.22 kg BYI 02960/ha. The interval between the drench and first foliar application was 90 days and the interval between the foliar applications was 13 to 15 days.



| Methylated soybean oil wa | s used as adjuvent | in all of the folia | r applications at 0. | 25% (v/v). |
|---|---------------------|---------------------|---|-----------------------------|
| Trial Site conditions, inclu- | ding soil character | istics are summar | ized in Table 6.3.2 | |
| patterns are summarized in | Table 6.3.2.18-12 | | | 7 Study Use |
| Table 6.3.2.18-11: Trial 5 | Site Conditions for | BYI 02960 on Co | offee | |
| Identification of the Field Trial | I11-008-01 | I11-008-02 | I11-008-04 | H1-00805 |
| Principal Investigator | Junior | | | Junior |
| Plots Size (m²) Untreated/Treated | 140 / 140 | 226. 236. | 30/30 | 90 790 |
| Number of Plots | 2 | 27 27 7 | A 59 | 2 8 |
| Spacing between the lines (m) | 3.50 | 7 24 3 | | |
| Type of Soil | Quyey 6 | Clayey | Payey | Average |
| pH-value of soil (in CaCl ₂) | 5. Py 5. | | | 5.8 |
| pH-value of soil (in H ₂ O) | | W 4.4 W W 5 | J-J | \$\frac{Q}{Z} - \frac{1}{Z} |
| Content of organic (%) | 30 | 1.8 | | 2.2 |
| Soil Topography | Dos livity | Declivity Q | Declivity Of the second control of | Declivity < 5% |
| Test System | CoffeeQgrains) | Coffee (grains) | Coffee (grains) | Coffee (grains) |
| Variety 🛇 | Catuai | Gatuaí-Vermelho | Catuaí | Mundo Novo |
| Date of the planting | 8 years | . 59/200k | 2001 | 9 years |
| Date of | May W | May 2 | August | May |
| commercial harvest | October O | Augus C | to September | to October |
| Variety Date of the planting Date of commercial harvest | | | | |

Table 6.3.2.18-12: Study Use Pattern for BYI 02960 200 SL on Coffee

| Identification of the Field trial | Type of Application | Dates of application (mm/dd/yy) | Crop stage (BBCH) | Effective volume of spray (L) | Effective applied dose (L/ha) | Effective applied dose |
|---|----------------------------|---------------------------------|----------------------|--|-------------------------------|-----------------------------|
| | Drench | 03/29/2011 | 81 | 2.80 | 3.00 | L 600 |
| 111 000 01 | Foliar Pulverization | 06/27/2011 | 85 | 5.62 | 1.01 | \$\frac{7}{202} \tilde{\pi} |
| I11-008-01 | Foliar Pulverization | 07/12/2011 | 88 | 5.80 | 1.0 | 268 Q |
| | Foliar Pulverization | 07/27/2011 | \$9 2 | 5,22 | ₹93 Q | 186 % |
| | Drench | 03/25/2011 | 75 | 3.67 | 2.98° | 5 9 6 |
| 111 000 02 | Foliar Pulverization | 06/23/2011(4) | 88 8 | \$\tag{40.0} | 06 | 212 |
| I11-008-02 | Foliar Pulverization | 07/08/2011 | 88 0 | 9.48 | 1.00 | 260° |
| | Foliar Pulverization | 07/22/2011 | | SY1 V | 9 .96 & | 192 |
| | Drench | 00008/201M | 73 | ©0.926° | £ 2.99 | 598 |
| 111 000 04 | Foliar Pulverization | 907/07b2011 | | 1.23 | 03 | 206 |
| I11-008-04 | Foliar Pulverization | 07/22/2001 | Z 88 Z | 1.020 | 0.85 | 170 |
| | Foliar© Pulverization 🔬 | 08/05/2011 | 89 | N 128 5 | ¥.07 | 214 |
| | Drench | QG/24/2011 | 85,7 | 0 1.90% | 3.03 | 606 |
| | Foliar Balverization | 09/22/2011 | | Z 3.80 W | 1.06 | 212 |
| I11-008-05 | Folkar Y Pulverization | 10/07/2007 | J 88 | 3.60 | 1.00 | 200 |
| | OFoliar Pulverigation | 10/20/2011 | | 85 | 1.01 | 202 |

Duplicate composites amples of coffee beans were coffeeted from the treated plot at 0, 7, 14, 21, and

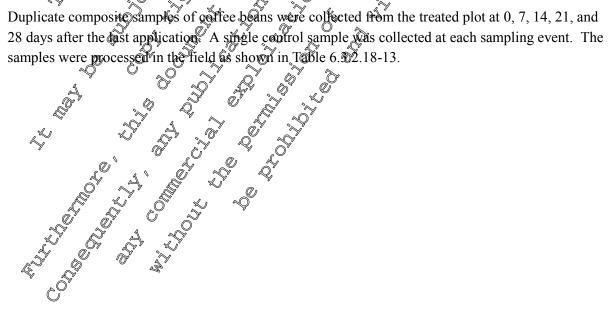




Table 6.3.2.18-13: Field processing

| dentification of Field trial | Sample Identification | Start Date (mm/dd/yyyy) | Final Date (mm/dd/yyyy) | Processing Type |
|---------------------------------|--|----------------------------|---|--|
| | I11-008-01-001C I11-008-01-002C I11-008-01-003C | 07/27/2011 | \$ 5 P | |
| | I11-008-01-004C I11-008-01-005C I11-008-01-006C | 08/03/2011 | 08/09/2011 | Orying after pulping |
| I11-008-01 | I11-008-01-007C I11-008-01-008C I11-008-01-009C | 08/10/2011 | 08/9/2011 | Orying ofter pulphg |
| | I11-008-01-010C I11-008-01-011C I11-008-01-012C | (08/17/2 0) 1 | | |
| | I11-008-01-013C I11-008-01-014C I11-008-01-015C | 08/24/2017 | 98/30/2001 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 2 | |
| | 111-008-02-001 111-008-02-002 111-008-02-003C 111-008-02-004C | 07/22/2011 5 | 0729/2010 | |
| | 111-008-02-004C 111-008-02-006C 111-008-02-007C | 07/29/2011 | 08/05/2011 | Drying after |
| I11-008-02 | 111-008-02-009C 111-008-02-009C 111-008-02-009C | | 08/15/2011 | pulping and removal of parchment |
| | 11 6008-02-011C 1N-008-02-012C | 98/12/2911 | 08/19/2011 | |
| | I \$4.008-\$2.015C | (%)/19/2651 (%) | 08/25/2011 | |
| TY S | 1111-008-04-002C 111-008-04-003C 111-008-04-0046 | 08/05/2011 | 08/09/2011 | |
| Ą | 111-008-04-008C 111-008-04-006C 111-008-04-006C | 08/105/2011 | 08/16/2011 | Draing and |
| 111 -00 8-04 | I116008-04-010C | U ŠY | 08/23/2011 | Drying and manual pulping |
| | 110-008-03-011C 111-008-04-012C 1111-008-04-043C | 08/26/2011 - 09/2011 | 08/31/2011 | |
| | 115608-04-014C 101-008-04-015C | 09/02/2011 | 09/06/2011 Continu | ued on next page |
| | | | 23.000 | puge |

Table 6.3.2.18-13 (cont'd): Field processing

| Identification of Field trial | Sample Identification | Start Date (mm/dd/yyyy) | Final Date (mm/dd/yyyy) | Processing Type |
|----------------------------------|--------------------------|----------------------------|----------------------------|-----------------|
| | I11-008-05-001C | | ♦ | |
| | I11-008-05-002C | 10/20/2011 | | |
| | I11-008-05-003C | | 11/03/2011 | |
| | I11-008-05-004C | | 11/03/2011 | |
| | I11-008-05-005C | 10/27/2011 🙈 | | |
| | I11-008-05-006C | | Q' | |
| | I11-008-05-007C | L | .04 | |
| I11-008-05 | I11-008-05-008C | 11/03 /2 011 | | Aprying arter |
| | I11-008-05-009C | | | pulsing |
| | I11-008-05-010C | | | |
| | I11-008-05-011C | (4,1/10/2 0) 1 S | V 0. 4 | |
| | I11-008-05-012C | | F \$V1/21/2011 \$ | d A o |
| | I11-008-05-013C | A | | |
| | I11-008-05-014C | ~ 1/747/2011 ? | | |
| | I11-008-05-015C | | | |

The residue(s) of BYI 02960, DFA and DFEAF were quantitated by DFLC-MS/Ms using stable isotopically labelled internal standards. The individual analyte residues were summed to give a total BYI 02960 residue. For the purpose of this summary document and to provide residue data for calculation of MRLs, residue measurements below the analyte LOQ were summed into the total BYI 02960 residue value as the analyte POQ value.

Concurrent recoveries of BYO 02960 DFA, and DFEAF over eneasured with each set of samples to verify method performance. All recoveries were corrected for any interferences in corresponding controls. The overall moan of the recoveries for each matrix was within the acceptable range of 70 to 110%, and the standard deviation values were \leq 20% (Table 6.3.2.18-14).

Table 6.3.2.18-14? Summary of Recoveries of BY102960 from Coffee

A.

| Crop Matrix | Analyte | Factification Levels (mg/kg) | Sample Size (n.) | Recoveries (%) | Mean % Recovery | CV (%) | LOQ (mg/kg) |
|----------------|-----------|------------------------------------|------------------|---------------------------|--------------------|--------|----------------|
| . 🕊 | BYI 02960 | 20.01 | | 80; 84; 76; 87; 85 | 82 | 5.4 | 0.01 |
| 4 | D11 0290₩ | 0.1 | Q 4 6 | 84; 87; 85; 84 | 85 | 1.8 | 0.01 |
| Coffee, | © DFA | | (7) | 76; 72; 77; 77; 73; 71 | 74 | 3.6 | 0.01 |
| Beans | | 0.5 | ~♥ 5 | 84; 70; 82; 83; 82 | 80 | 7,2 | |
| | DÆAF | Q.P1 | 5 | 86; 90; 82; 81; 85 | 85 | 4.2 | 0.05 |
| | | 0.1 | 4 | 89; 90; 80; 83 | 86 | 5.6 | 0.03 |

The freezer storage stability study indicates that BYI 02960 residues were stable in coffee bean commodities during frozen storage for at least 18 months prior to analysis. The maximum storage period of frozen samples in this study for BYI 02960 was 145 days. A summary of the storage conditions are shown in Table 6.3.2.18-15.

Summary of Storage Conditions for Coffee Table 6.3.2.18-15:

| Identification of Field trial Oute of the end of field last Storage Period of States of Field trial Date of the end of field last Storage Period of States of Field trial Oute of the end of field last Storage Period of States of Field trial Oute of the end of field last Storage Period of States of Field trial Oute of the end of field last Storage Period of States of Field trial Oute of the end of field last Storage Storage Period of States of Field trial Oute of the end of field last Storage Storage Period of States of Field trial Oute of the end of field last Storage Storage Period of States of Field trial Oute of the end of field last Storage Storage Period of States of Field trial Oute of Field trial Storage Storage Period of States of Field trial Oute of Field trial Storage Storage Period of States of Field trial Oute of Field trial Storage Storage Period of States of Field trial Oute of Field trial Storage Storage Period of States of Field trial Storage Period of States of Field trial Storage Period of States of Field trial Storage Storage Period of States of Field trial Storage Storage Period of States of Field trial Storage Storage Period of States of Field trial Storage Storage Period of States of Field trial Storage Stora | action Fility |
|--|---|
| Identification of Field trial Oute of the end of field last Storage Temperature of Storage (ays)a (mm/dd/yy) (com/dd/yy) (°C) (°C) (days)f (d | iod & ed by action & Fility & |
| Identification of Field trial Date of the end of field last Storage Period of Start (days)a (mm/dd/yy) (nm/dd/yy) (°C) (days)f (days) | iod & ed by action & Fility & |
| Identification of Field trial Date of the end of field last Storage Period of Start (days)a (mm/dd/yy) (nm/dd/yy) (°C) (days)f (days) | iod & ed by action & Fility & |
| Identification of Field trial Date of the end of field last Storage Temperature of Storage (mm/dd/yy) Object of the end of field last Storage Storage Temperature of Storage (mm/dd/yy) Object of the end of field last Storage Storage Temperature of Storage (mm/dd/yy) Object of the end of field last Storage Storage Storage Temperature of Storage (mm/dd/yy) Object of the end of field last Storage Storage Storage Storage (mm/dd/yy) Object of the end of field last Storage S | iod & ed by action & Fility & |
| Identification of Field trial Date of the end of field processing of Field trial Date of the end of field last processing extraction (days)a Date of the end of field last processing extraction (mm/dd/yy) Date of the end of field last processing extraction (days)a Storage value for ideas Storage processing (days)for ideas 0 08/09/11 0 | ed Sy action Fility |
| Identification of Field trialScheduled DAT processing of Field trialIdentification (days)aOmm/dd/yy) (mm/dd/yy)Storage extraction (mm/dd/yy)Storage extraction (mm/dd/yy)Storage (priod of States)008/09/1108/09/1112/21/11134708/09/1112/21/1134 | action Fility |
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| 28 08/36/11 12/21/11 | \$ |
| 0 0729/11/2 22/21/17 2 6 145/7 | |
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| 28 408/25/20 12/24/11 4 4 18 | |
| 0 08/08/11 0 12/19/11 0 27 07 4/32 | |
| 92/19/10 12/27/Y1 133 | |
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| I11-008-04 $0.08/23$ 0.0 | .0 |
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| 0 0 11/03/11 2 12/09/11 46 | |
| 11.003/11 12/19/10 46 | |
| 111-008-05 | 0 |
| 27 21 V 27 11/22 P1 27 12 19/11 27 | |
| 28 11,22/11 27 27 | |

DAT – Days ofter last Treatment.

The total FYI 02060 residue data for coffee beans following a single soil drench and three foliar applications applications of BYI (2000 SL are shown in Table 6.3.2.18-16.

Samples were stored with do ice during transportation of UPA and from UPA to the Laboratory and at <-20 °C during storage PA and the Laborator

Period between processing and sample extraction of corresponding sampling (DAT). For samples extracted more than once, the date of the last extraction of preated sample was taken into consideration for the calculation of storage period.

^{2012.} Storage stability of BYI 02960, difluoroacetic acid, and difluoroethyl-anino-furanone in Mant matrices. Bayer CropScience Report No. RARVP046, amended version including 18-month data (KIIA-6) 1.1/01

Table 6.3.2.18-16: Total BYI 02960 Residue Data from Coffee Beans after a Single Soil Drench and Three Foliar Applications of BYI 02960 SL

| | | | | | | | Residue | s (mg a.s. | equiv./kg | |
|-------|----------------------------|-------------------|-------------------------------------|------------------------|-------------------|--------------------|---|----------------------------|---------------|--------------------------|
| Field | Identification | | Rate (L/ha) (directed jet- | Rate (g a.s./ha) | DAT | BYI | | | of B | Averag of Tota cal |
| trial | of Sample | Type | drench) | (foliar) | (days)a | 02960 | D FEAF | DEA | 02960ь | © 02960 |
| | I11-008-01- | С | | | 8 | <0.01 | (| Ø.05 , | 9<0.07 | / _{} |
| | 001C-01L | | | | S. | _() | <i>*</i> | | J* 10.00 | ζO' |
| | I11-008-01- | С | | <u> </u> | 7 | <0.01 | € 0.01 € | <0.05 | <6.07 | (©) _ |
| | 004C-01L I11-008-01- | | | 200 | 7 | _ | <i>(/)</i> | -\O | i i | * |
| | 007C-01L | C | | ~× | o14 | Ø<0.01\^ | <0.901 | 30.05 | <0.07 | - |
| | I11-008-01- | - C | | 0 ,/ | | -60A1 | 2 0.01 | F -0 d/2 | 20 .07 | 0 |
| | 010C-01L | С | | A | 210 | Q 901 | Ø0.01 | <0.05 | | · > |
| | I11-008-01- | С | & | | ~28 £ | ><0.04\(\sigma\) | > <0 0 ° | ≈ 0.05 _€ | <0.0 | _ |
| | 013C-01L | | <u></u> | | Q' 20, Y | (O). | | | O | |
| | I11-008-01- | T | | 200 | ,0° | 6 003 | 0.015 | <0.85 | Ø.09 | |
| | 002C-01L I11-008-01- | | - ~ · · · · | , | Ů | * | | | \sim | 0.1 |
| | 003C-01L | T | | 200 0 | | 0.04 | < 9 01 | 0.05 | 0.1 | |
| I11- | I11-008-01- | T | | - 0 | 7 | Ø.03 _{s,} | (| . % | 0.00 | |
| 008- | 005C-01L | T& | & ³ | \$\frac{200}{200} | 7 | 4 0 .03 | \$\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | <0.05 | 0.09 | 0.00 |
| 01 | I11-008-01- | »jT | 3 0 | 2 00 | e - | \ <0.04 | £ 0 .01 ~ | 0.05 | < 0.07 | 0.08 |
| | 006C-01L | <u>~</u> | <u> </u> | 200 | | (0.01 | 29.01 à | \$ \0.03 \$ | \0.07 | |
| | I11-008-01- | TÖ | 43 | 200 | √1.A√ | ©.01 | <0.01 | < 0.05 | < 0.07 | |
| | 008C-01L | | | | ~~ | | <u> </u> | | | < 0.07 |
| | 009C-01L | ŢŐŢ | 3 💜 | 200 | 9 14 S | <0.01 | 6 .01 | < 0.05 | < 0.07 | |
| | I11-Q@-01- |) TO | 03 4 | | | 0.01 | V | 0.05 | 0.07 | |
| | 011&-011 | TO | <i>□</i> 3 × | 200 | | O.01 | <0.01 | < 0.05 | < 0.07 | < 0.07 |
| | J19-008-01- | . У Т . | S 3€ | \$\displays{6}{0}0 | 21.0 | <0.07 | < 0.01 | < 0.05 | < 0.07 | \0.07 |
| | Ø12C-01L | | | 200 | 21 | . 0 | 10.01 | 10.03 | ١٥.07 | |
| 4 | 111-008-01 | Ì | ₩3 8 | 200 | | §¥0.01 | < 0.01 | < 0.05 | < 0.07 | |
| | 014C-01kQ " I11-008-01- | 4 | | ~~~ | Ö » | | | | | < 0.07 |
| | 015C-01L | J T √S | 200° | 200 _C | 28 | < 0.01 | < 0.01 | < 0.05 | < 0.07 | |
| | 111-008-01- 015C-01L | | | | ' '''' | | <i>C</i> | /* 1 | | _ |
| | .4 | | Õ L | | | | Con | iinuea on | next page | <i>2</i> |
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Table 6.3.2.18-16 (cont'd): Total BYI 02960 Residue Data from Coffee Beans after a Single Soil Drench and Three Foliar Applications of BYI 02960 SL

| | | | | | | | Residue | s (mg a.s. | equiv./kg | |
|-------|--------------------------------------|----------|---------------------------------------|-----------------------------|-------------------|-------------------|---|--|-------------------------|---------------------------------|
| Field | Identification | | Rate (L/ha) (directed jet- | Rate (g a.s./ha) | DAT | BYI | | , , , , | God Fotal of B | Averag of Tota cal BYI |
| trial | of Sample | Type | drench) | (foliar) | (days)a | 02960 | Ø FEAF | DEA | 02960ь | © 02960 |
| | I11-008-02- | С | | | 8 | <0.01 | 2 <0.01 | 30 .05 | \$<0.0 2 | |
| | 001C-01L | C | | | Į, | | § \0.01 | 3 .03 | J* 10.00 | ψ ^O |
| | I11-008-02- 004C-01L | C | | گے | 7 | <0.01 | € 0.01 € | <0.05 | < © .07 | , © * - |
| | I11-008-02- | | | 20 | <u> </u> | | V// h 12-0 | | | * |
| | 007C-01L | C | | ₹ | o14 € | 0<0.01° | <0.001 | 8 0.05 € | <0.07 | - |
| | I11-008-02- | С | | × | 210 | 50 01 | 2 0.01 | <0.05 | £0 207 , | ° - |
| | 010C-01L I11-008-02- | | \$ \(\) | | * * * | | | | | ¥ |
| | 013C-01L | C | 🖇 | , <u>~</u> | © 28 . L |)<0.0 4 | <0.01 | ₹ 0.05 _€ | <0.0 | - |
| | I11-008-02- | | Q, | , X | | 2 0004 | C. | | | |
| | 002C-01L | T | S ^o | 200 | .00 | № 004 % | 0.01 | <0.85 | 0.1 | 0.1 |
| | I11-008-02- | Т | Q' 3 B | 29 0 | \$ 0 6 | 0.04 | <q01< td=""><td>چ د م م</td><td>0.1</td><td>0.1</td></q01<> | چ د م م | 0.1 | 0.1 |
| I11- | 003C-01L | (| 2 3 Q | 60 | $\mathcal{S} = 0$ | | - (| 0.05 | 0.1 | |
| 008- | I11-008-02- 005C-01L | T | 3 8 | \$ 200 _C | 7 | Ø.04 s | ©<0.01 | $\left(\begin{array}{c} < 0 \text{ Ps} \end{array}\right)$ | 0.1 | |
| 02 | I11-008-02- | © | | 1 @.V | | ~A | | 0.05 | | 0.1 |
| | 006C-01L | »T | 3 🕏 | 200 | 7 3 | 0.03 | £0 .01 | ≈ <0.05 | 0.09 | |
| | I11-008-02- | T | * | | jā. | 9 .03 | <0.04 | <0.05 | 0.09 | |
| | 008C-01L | | | 2000 | ZIH | ₩.03 ₍ | ~ < 0.Qu, | <0.03 | 0.09 | 0.1 |
| | 111-008-02 009C-01L | TO | 3 | 200 | 9 14 \$ | 0.0 | 6 .01 | < 0.05 | 0.1 | 0.1 |
| | I11-008-02- | TO | 03 4 | 2005 | (A) | | <0.01 | < 0.05 | 0.08 | |
| | 011C-01L& J19-008-02- | | ث ک | | 1 | 0.02 | / | | | 0.08 |
| | 012C-01L | T S | 30 | 200 | 21 | 0.09 | < 0.01 | < 0.05 | 0.08 | |
| 4 | A No. | | 4.4 | 7 200A | . 20 | % 0.7 | 0.01 | 0.00 | 0.17 | |
| | 014C-01kQ | Ž) | | 200 | & 28 A | € 0.07 | 0.01 | 0.09 | 0.17 | 0.19 |
| | 014C-014Q 111-008-02- 015C-01L | AT & | | 200 | 28 | 0.08 | 0.01 | 0.1 | 0.19 | 0.19 |
| | 015C-01L | | | | | | | | | |
| | | ~° | | | | | Con | tinued on | next page | 2 |
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Table 6.3.2.18-16 (cont'd): Total BYI 02960 Residue Data from Coffee Beans after a Single Soil Drench and Three Foliar Applications of BYI 02960 SL

| | | | | | | | Residue | s (mg a.s. | equiv./kg | |
|--------------|---|------------|--|------------------------|---------------------|---------------------|--|----------------------------|----------------------------|---------------------|
| Field | T1 | | Rate (L/ha) (directed | Rate (g a.s./ha) | DAT | BYI | Š | 7 | Gotal Fotal of BX | Average of Tota cal |
| trial | Identification of Sample | Туре | jet- drench) | (foliar) | (dars) ^a | 02960 | Ø FEAF | DEA | 02960b | © 02960 |
| | I11-008-04- | | urenciij | (IUIIaI) | | | W EAT | DEG. | A . (| |
| | 001C-01L | C | | | \$ T | <0.01 | <0.01 | 30 .05 | 5 <0.0 7 | /.O¥ |
| | I11-008-04- | | | a | Ů, | <0.01 | ~0.01 € | 0 00 | < <u>0.07</u> | 0,1 |
| | 004C-01L | С | | 2 | 7 | <0.001 | <0.01 | <0.05 | < 9.0 / | Ş - |
| | I11-008-04- | С | | Q | <u>,</u> ∘14 | 0<0.01 ² | <0.40ml | 20 05 ° | (< 0.07) | |
| | 007C-01L | C | | <u> </u> | | | % 1 | 30 .05 | , 0.0//, | - |
| | I11-008-04- | С | | . O « | 210 | <0001 | 3 0.01 | <0.05 | 20 207 | - ° - |
| | 010C-01L | _ | | A O | | Q. | S | | | 8 |
| | I11-008-04- 013C-01L | C | K | ,^=>/ ^{''} | 28 | ><0.04 - | <0.01 | ≈ 0.05 _€ | <0.0 | - |
| | I11-008-04- | | | | | X | ≪/ n' | | 0 | |
| | 002C-01L | T | | \$\tag{200} | 0,7 | 2 0002 | \$\ 0.01\$ | <0.05 | Ø.08 | |
| | I11-008-04- | | Q 2 20 | / | | 5 ⁷ | | 0.05 | ~ | 0.08 |
| T1 1 | 003C-01L | Т | 2 3 Q | 20 0 | | 0.02 | 40 01 | \bigcirc 0.05 | 0.08 | |
| I11- 008- | I11-008-04- | T | 3 \$ | _ "(| 7 | Ø.01 ₂ | \$<0.0 } | <0.05 | < 0.07 | |
| 04 | 005C-01L | | | S 200 | ~ | \$0.01 % | · · · · · · · · · · · · · · · · · · · | Ĉ | <0.07 | < 0.07 |
| 04 | I11-008-04- | ST. | 3 🗳 | 20 0 | L 7 ∼ | <0.0¥ | 50 .01 ₂ | 0.05 | < 0.07 | ١٥.٥/ |
| | 006C-01L | <i>△</i> = | <u> </u> | | | | |) | 0.07 | |
| | I11-008-04- | TÔ | | , 2000 | ~1 / A | Q0.01 | <0.01 | < 0.05 | < 0.07 | |
| | 008C-01L | | | | | 0 | | | | 0.07 |
| | 009C-01L | TO T | 3 💝 | 200 | 9 14 S | 0.05 | 3 .01 | < 0.05 | 0.07 | |
| | I11-Q@-04- |) | | | * | 0.05 Q | ************************************** | .0.05 | 0.11 | |
| | 011&-01L | TO | \mathbb{O}_3 & | 200 | | Õ ^{30.05} | <0.01 | < 0.05 | 0.11 | 0.11 |
| | J19-008-04- | | | 200 | 21. W | 0.09 | < 0.01 | < 0.05 | 0.11 | 0.11 |
| | Ø12C-01L | Q ' Z | | 200 | 21 | | \0.01 | \0.03 | 0.11 | |
| 4 | ¥I11-008-04- | i iv | €3 | 200 | | 0.03 | < 0.01 | < 0.05 | 0.09 | |
| | 014C-014Q | 7 | | | | | - | | | 0.09 |
| | 111-008-94- | A T √S | | Ž00 🧥 | 28 | 0.03 | < 0.01 | < 0.05 | 0.09 | |
| | 013C-01L | | | | * | | | | | |
| | , Q | | | | ð | | Con | tinued on | next page | 2 |
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| | A .A | | | * | | | | | | |
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| | | |)" | | | | | | | |
| * | J Ž A | | | | | | | | | |
| S | 012C-01L 111-008-04- 014C-0140 111-008-04- 015C-01L | | | | | | | | | |
| | | | | | | | | | | |
| 4 | [≽] Ô _A | | | | | | | | | |
| (| | | | | | | | | | |
| | | | | | | | | | | |

Table 6.3.2.18-16 (cont'd): Total BYI 02960 Residue Data from Coffee Beans after a Single Soil Drench and Three Foliar Applications of BYI 02960 SL

| | | | | | | | Residu | es (mg a.s. | equiv./kg/ | |
|----------------|--------------------------|--|-----------------------------------|---------------------------------------|--|-----------------------|---------------------|------------------------|--------------------|-------------------|
| Field trial | Identification of Sample | Туре | Rate (L/ha) (directed jet-drench) | Rate (g a.i./ha) (foliar) | DAT (days) ^a | BYI 2960 | DITAF | DFA Ö | Cal Sotal of BY 1. | Anverage of Total |
| | I11-008-05- 001C-01L | С | | | | <0.01 | © [₹] 0.01 | <0.05 | 0.07 © | |
| | I11-008-05- 004C-01L | С | | | Ž 7 | <0.00 | <0.01 | 0.05Q | <0.07 | \$\frac{\pi}{2}- |
| | I11-008-05- 007C-01L | С | | | 14 | ~ 0.01 | Q<0.01Q | A \ 8 | Ø<0.07 Ø | - |
| | I11-008-05- 010C-01L | С | | %(| 21 | <0.01 | 20.01 | \$<0.05 | <0.07 | - 0 |
| | I11-008-05- 013C-01L | С | 🐇 | \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ | | 3 0.01 | <0.04 | <0.05 | ©0.07© | - |
| | I11-008-05- 002C-01L | T | 30 | \$\frac{1}{2}00 \times | | 0.02 | | \$\frac{1}{2} < 0.05\$ | 008 | 0.08 |
| | I11-008-05- 003C-01L | T | | 200 | 7 | 0.02 | ~0.00° | 20 .05 | © 0.08 | 0.08 |
| I11- 008-05 | I11-008-05- 005C-01L | T | | 200 d | 7,0 | 0.02 | . O.01 (| 0.0 \$ | 0.08 | 0.08 |
| | I11-008-05- 006C-01L | , L | ⁶ √3 ⁷ √3 | 200 | <i>®</i> 7 | 0.01 | <0.04 | © 0.05 | 0.07 | 0.08 |
| | I11-008-05- 008C-01L | T |) | Ö200 S | 140 | 40 ,01 | (<0.01 C | 0.05 | < 0.07 | < 0.07 |
| | I11-008-05 009C-01 | J. | \$\frac{1}{3} \tag{2} | 200 | ~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~~ | -0.01 | <0.01 | < 0.05 | < 0.07 | ~0.07 |
| | I11-008-05- 011 ©01L | T | | Z200 / | 21 | ©.01 | \$0.01 | < 0.05 | < 0.07 | < 0.07 |
| | I11-008-05 | \\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\\ | | | \$\frac{1}{\tilde{\pi}} 21 \$\tilde{\pi}\$ | <0.01 | <0.01 | < 0.05 | < 0.07 | \0.0 <i>1</i> |
| 4 | 11-008-05- 014C-01L | ŢŚ | | . 2006 [©] | 288 | 0.01 | < 0.01 | < 0.05 | < 0.07 | < 0.07 |
| | 111-008-050 015C-050 | | | 200 | © 28 ° | <0.01 | < 0.01 | < 0.05 | < 0.07 | ·0.07 |

a DAT: Days after last To atment

Conclusion

wals were conflucted to measure the magnitude of total BYI 02960 residues in/on coffee single soil drench and three foliar spray applications of BYI 02960 200 SL.

02960 restaue data for coffee beans are summarized in Table 6.3.2.18-17.

DAT: Days after last Treatment.

For the purpose of this summary document, aftersidues found below the Limit of Quantitation (LOQ) of the method are reported as < 0.01 mg/kg for BYI 02960 and BFEAF, and < 0.95 mg/kg for DFA. Total BYI 02960 residue is the sum of BYI 02960, DFA, and DFEAF residue in parent equivalents. Residue measurements below the analyte LOQ were summer into the total BYI 02960 residue value as the analyte LOQ value. These totals represent the upper limit of what



Table 6.3.2.18-17: Summary of Residue Data for Total BYI 02960 from Coffee Trials in Brazil

| | | _ | | | Tota | 1 BYI 029 | 960 Resid | lue Level | s (ppm) | a.c |
|--------------|-----------|--|------------|---|---------------|-----------|-------------------|-------------|---------|-----------------------------------|
| Commodity | Plot Name | Total Application Rate (kg a.s./ha) | PHI (days) | u | Min | Max | HAFT ² | Median | Mean | Stangard Stangard Deviation |
| | | | 0 | 4 | 0.08 | 0.10 | 0.10 | 0.09 | 0.0 | 001 |
| Coffee bean, | | | 7 | 4 | <0.07 | 0.10 | 020 | 0.08 | J.08_ | 90.01 |
| green | TRTD | 1.19 to 1.22 | 14 | 4 | <0.07 | 0.10 | 0 .10 | 0.07 | 0.08 | 0.02 |
| | | | 21 | 4 | 3 0.07 | 0.11 | 0. © | D 08 | Ø.08 | 0.02 |
| | | | 28 | 4 | <0.07 | £99 | Ø.19 | 0.08 | 0.4 | 0.08 |

TRTD = Treated plot receiving a soil drench application followed by three foliar applications of BYI 02960 200 SL

The data of the four decline trials showed rather similar total BYL02960 residues independent com the sampling time The overall maximum residue was detected in a sample collected as day cafter the last application which amounted to 0.19 mg/kg. The residue maximum was reached in two trials at the day of the last application, in one trials 21 days after the last application and in another trial at 28 days uay of the last application, in one trials 21 days after the last application and in and after the last application. Thus, no conclusive decline behaviour was defected in coa kind of residue plateau seemed to be reached after the third foliar application. after the last application. Thus, no conclusive decline behaviour was defected in coffee beans, however



Overall conclusion - Coffee

Supervised residue trials were conducted in coffee in the Guatemala, Mexico and in Brazil to achieve national registrations and global import tolerances.

Globally one worst-case GAP was supported and tested: one soil drench application followed by three foliar spray applications of BYI 02960 200 SL. Eight field trials were conducted according to the GAP to measure the magnitude of BYI 02960 residues in/on green coffee beans. In addition three field trials will be conducted in Columbia.

A summary of the use pattern tested and the corresponding residuo evels detected in the field camples are shown in Table 6.3.2.18-18.

Table 6.3.2.18-18: Summary of Residue Data for Total BY 02960 from Coffee

| Crop | Formulation | Use pattern Wethod No. Application No. Triato BYI 02960 at PHI (ppm) Day of peak | due |
|-------------|-------------|---|-----|
| Mexico, Gua | temala | | |
| Coffee | SL 200 | x 200 xg a.s. ga | 6 |
| Brazil | (7/1) | | |
| Coffee | SL200 | 3 x 200 kg a.s./ha Soil dreinsh followed 60 4 4 0.08-0.10 0.19 2: | 8 |

Highest residue levels were observed in the coffee trials in Gatemala and Mexico although all trials were conducted according to very silifar use patterns. Overall, total residue levels of BYI 029630 did not always peak at the intended Phil, two trials showed the maximum residue level at the last sampling event. However the residues were in the same range than the residues at the intended PHI of 0 days and it can be concluded that generally the total residue leveled off after the third application.

The residue data provided for coffee are suitable for regulatory purposes.



IIA 6.3.2.19 Hops

BYI 02960 is to be registered in USA and Canada for use as a foliar treatment on hops. The use pattern in North America is summarized in Table 6.3.2.19-1.

Three field trials were conducted in hops. The studies are described below.

Table 6.3.2.19-1: Target Use Patterns for the Application of BYI 02960 on Hops

Target Rate/Application

| | | | Targe | t Rate/Application | | | Q | Ŵ, | Q (| Spray | Volume |
|---------------------|--------|-------|-------------------------------|--------------------|-------------------------|-----------|----------|--------------------|-----------------------|-----------------|----------|
| | | _ | Formulated Product (FP) Ac | | Active Substance (3/3.) | | Target & | ``≯ U Target | Adjuvant | | |
| Test | No. of | | | Name of | lb [| Kg @ | Interval | PIO | Adjuvant /Additive | | |
| Substance | Apps | mL/A | fl oz/A | a.s. 🛴 | a.s./A | a.s./ha | (Days) | (Lays) | % (%)` | GPA | LPHA |
| BYI 02960 SL 200 | 1 | 311.7 | 10.54 | BYI 0 60 | 0 .]374 | 0454 2 | | ~ | | 10+50 | Ø4-468 |
| BYI 02960 SL 200 | 1 | 311.7 | 10.54 | PO 1 02960 | 0.1374 | 0.454 | | 21. | \$25 - 150° | 50-4 <i>5</i> 0 | 468-1410 |

1 NA = Not applicable.

| Report: | KIIÅ 6.3.2.49/01; 2012 2012 |
|-------------|--|
| Title: | BY 102960 SL 200 Magnitude of the Residue in Mongs |
| Report No & | RANY008, dated June 92, 2019 |
| Document No | \$1VI-43E\\93-0\frac{1}{2}\\ \tag{\tag{\tag{\tag{\tag{\tag{\tag{ |
| Guidelines: | US EPA Residue Chemistry Test Guidelines OPPS 8600500, Crop Field Trials |
| 8 | Canada: PMRA DACO 7.4.1, Supervise Residue Trial Study |
| 8 | |
| | OECD: Guidelines for the Testing of Chemicals, 509, Crop Field Trial, |
| | , Admipted Sept. 7, 2009, O' V , O |
| GLP | |

Three field trials were conducted to measure the magnitude of BYI 02960 residues in/on hops following a single broadcast foliar spray application (either as a diluted or a concentrated spray) of BYI 02960 200 SL

BYI 62960 200 SLAS a soluble concentrate formulation containing 200 g BYI 02960/L. The number and location of field trials conform to the guidance given by the EPA (Table Table 6.3.2.19-2).

Trial Tumbers and Geographical Locations for BYI 02960 on Hops

| NAFTA Growing Region | Submitted ^a | Requested |
|----------------------|------------------------|-----------|
| | 2 | |
| 12 | 1 | |
| Total | 3 | 3ª |

There is no specified guidance on distribution of trials for hops, although virtually all of the production is in EPA region 11.



Material and Methods

Individual application rates ranged from 0.137 to 0.139 lb BYI 02960/A (0.154 to 0.156 kg BYI 02960/ha) for the concentrated plot and from 0.136 to 0.138 lb BYI 02960/A (0.152 to 0.155 kg BYI 02960/ha) for the dilute plot. Spray volumes ranged from 33.6 GPA to 45 L GPA for the concentrated plot and from 63.6 GPA to 126 GPA for the dilute plot. All applications were made at BBCH growth stage 85 (advanced ripening).

All applications were made using ground-based equipment. Trial RV047-11HA used a non-princ surfactant (NIS) in applications to both plots at 0.2% (v/v), trial RV048-11HA used a crop oil concentrate (COC) in applications to both plots at 1.0% (v/v), and trial RV048-11HA used methylated seed oil (MSO) in applications to both plots at 0.2% (v/v).

Trial Site conditions, including soil characteristics are summarized in Table 6.3.2 19-3. Study use patterns are summarized in Table 6.3.2.19-4.

Table 6.3.2.19-3: Trial Site Conditions for BYI 02960 on Hops:

| | A | Soil Cha | racteristics 0 | Meteorol | gical Datab |
|-------------------------|---|-------------|----------------|---------------------------|---------------------|
| Trial Identification | Trial Location (City, S Country/State, Year) | | pH (meq@000g | Totak Rainfall (in) | Temp. Range (°F) |
| RV047-11HA | 2011 Z | Loam VI | .2 8 33.7 | \$ 0.10 | 50 - 92 |
| RV048-11HA | , WA Ô | Loamy Sand | 2 54 2 11.70 | 0.05 | 48-82 |
| RV049-11H | , QR | Silt Loam 3 | .10 5.25 46.1 | 0.27 | 50 - 81 |

- a Abbreviations used: %OM = percent organic matter; CEC = cation Change vapacity.
- b Datas for the interval of the month of first application, through the month of last sampling. Meteorological data were obtained from nearby government weather stations.



Table 6.3.2.19-4: Study Use Pattern for BYI 02960 200 SL on Hops

| | | | | | Ap | plication | 1 | | | Qi° >> |
|----------------------|--|----------------------------------|----------------|----------------------|----------------------------|-----------------------------------|---|------------------------------------|--|--|
| Trial Identification | Location (City, State, NAFTA Region, and Year) | End-use Product (Formulation) | Plot Name | Method | Timing/Growth Stage (BBCH) | Spray Volume GPA | Rate lb K3./A (kg a.s./ha) R2Q | े Retreatment Interval (daisी)ू | Voigi Rate Ilpa.s./A (kg askla) | Cank Mik Adjuvanik |
| RV047- 11HA | ID Region 11 2011 | BYI 02960 200 SL | TRTDC TRTDD | Airblast Airblast | 85 85 | 126 (1,15/8) | 0.139 0.156 0.138 (0.155) | NA a | 0.139 (0.156) (0.155) (0.155) | RJYNIS, Q.2% v/v |
| RV048- 11HA | WA Region 11 2011 | BYI 02960 200 SL | TRTDE | Air blast | J*85 | Q 45 (421) | 0.138 (0.55) 0.138 (0.138 (0.153) | NA ^a | 0.038 (6.155) 0.138 (0.954) | MOR-ACT COC, 1% v/v MOR-ACT COC, 1% v/v |
| RV049- 11HA | , OR Region 12 2011 | BYI 02960 200 SL & | TKTDC TRTDD | Airblast Airblast | 85 | \$4 (5,15) (64°) (5,05°) | 0.137 (0.154) 0.136 (0.752) | NA & | 0.137 (0.154) 0.136 (0.152) | MSO, 0.25% v/v MSO, 0.25% v/v |

Single composite samples of fresh hop cones from both the concentrated and dilute spray plots, along with an untreated control sample, were collected at the pre-harvest interval (PHI) of 21 days. The fresh hops were kiln fried on the day of harvest to generate the RAC of dried hop cones.

The residue(s) of BYI 2960 DFA, and DFEAF were quantitated by HPLC-MS/MS using stable isotopically labelled internal standards. The individual analyte residues were summed to give a total BYI 02960 residue. Residue measurements below the analyte LOQ were summed into the total BYI 02960 residue value as the analyte LOQ value.

Findings

Concurrent recoveries of SYI 02960, DDA, and DFEAF were measured with each set of samples to verify method performance. All recoveries were corrected for any interferences in corresponding controls. The werall mean of the recoveries at each fortification level was within the acceptable range of 70 to 116%, and the standard deviation (SD) values were below 20% (Table 6.3.2.19-5).



Table 6.3.2.19-5: Summary of Recoveries of BYI 02960 from Hops

| Crop Matrix | Analyte | Spike Level (ppm) | Sample Size (n) | Recoveries (%) | Mean % Recovery | Stan. % © Dev. |
|----------------|-----------|-------------------|--------------------|---|-----------------------|----------------------|
| | | 0.010 | 7 | 88, 91, 93, 97, 101, 96, 85 | 9 3 | 50 |
| | BYI 02960 | 2.400 | 3 | 99, 97, 97 | 98 | O 1.4 S |
| | | 4.800 | 3 | 💍 89, 89, 87 🎝 | 88 🌂 | J 137 |
| Hop Cone, | 22. | 0.050 | 7 | 86, 88, 90, 89 , 93, 95, 99 | 90, | \$2.9 \$2.9 \$ |
| kiln-dried | DFA | 2.400 | 3 | 87, 85,82 👸 | \$5 | 2.3 [©] |
| | | 4.800 | 80 | 89,91,89 | 90 | <i>9</i> .1 |
| | DEFAE | 0.010 | 7 7 | 107, 94, 94, 97, 3 0 92, 90, 79 | | 8.24 |
| | DFEAF | 2.400 | | 99, 101, 10 3 | 6 ⁵ 101, € | ₹ .8 |
| | | 4.800 | | \$4, 92, 6 0 | 925 | × 1.9 |

a Mean Recovery = mathematical average of all recoveries

The freezer storage stability study indicates that BYL 2960 residues were stable in coffee beans and soybeans - as high oil content representatives - during frozen storage for at least 18 months prior to analysis. The maximum storage period of frozen samples in this study for BYI 02960 was 226 days. A summary of the storage conditions are shown in Table 6 32.19-6.

Table 6.3.2.19-6: Summary of Gorage Conditions for Hops

| Components) | Matrix (RA©) | Maximum Average Storage Temperature | Actual Storage Duration months (days) b,c,d |
|-------------|------------------|---|--|
| BYI 02960 | Hops Dried Cones | | 8 (226) |
| DFEAF 🗳 | Hops Dired Cones | <-19 | 8 (226) |
| DFA 🎺 | Hop Dried Cones | \$\frac{1}{2}\frac{1}{2 | 8 (226) |

a The magnium average storage temperature is from the time of sample receipt at BRP until sample extraction. While preparing for sample analysis, the samples were maintained in a laboratory freezer.

The total BYI02960 residue data for hops following one foliar application of BYI 02960 200 SL are shown in Table 6.32.19-32

b The storage duration is the time from field sampling through the last sample extraction.

c diffuoroethyl-andino-furanone in Mant matrices. Bayer CropScience Report No. RARVP046, amended version including 18-month data (KIIA) 1.1/100.

Table 6.3.2.19-7: Total BYI 02960 Residue Data from Hops after One Foliar Application of BYI 02960 SL

| Deirid Identification | Location (City, State, Region, and Year) | Plot Name | Crop Variety | Commodity | Total Rate | % Dry Matter | Pre-harvest interval | BPO2960 Residue | DFA Residue | O. DFEAREsidue (Dym) | Optal BYk02960 Resting |
|------------------------|---|-----------|--------------|-------------------------|---------------------|--------------|----------------------|------------------|----------------|---|------------------------|
| Dried Co | nes | I | | ı | - (0" · | l | | <u> </u> | ~∜ . | <u>O</u> " | |
| RV047- | | TRTDC | Apollo | Hops, dried cones | 0.1309 (0.136) | | 216 Q | 2.4% | 0.905 | 4 | 33.32 |
| 11HA Region 11 2011 | 2011 | TRTDD | Apollo | Hops dried cones | 0.438 (0.455) | | 70° | | 0.362 | \$\tag{\frac{\pi}{\pi}} \tag{\frac{\pi}{\pi}} \tag{\frac{\pi}{\pi}} \tag{\frac{\pi}{\pi}} \tag{\frac{\pi}{\pi}} \tag{\frac{\pi}{\pi}} \tag{\frac{\pi}{\pi}} \tag{\pi} \ | © 3.14 |
| RV048- | , WA, | TRTDC | Cascade | 30110 | 138 (0.155) | 770 \$70 | Ž1 | | \$.32 \$.32 | © 0.037 | 7.98° |
| 11HA | Region 11, 2011 | TRTED | Caseade | Hops, dried cones | 0.138 (0.154) | | ©* 21 | 4.72 | Z 2.97 | 0.070 | 7.76 ^d |
| RV049- | OR, | TRADC | Magget (| Hops, dried cones | 0.137 | | | ₩ 2.26 | 0.804 | 0.004 | 3.07 |
| 11HA | Region 125 20116 | TRIDD | Nugget | Hops dried cones | 0.136 (0.752) | | 21 | 2.70 | 0.642 | 0.008 | 3.35 |

- a Pre-Hargest Interval (PH) is the merval lower last application and sampling date at harvest
- b Total BYI 02960 residue is the sum of BYI 02960, DFA and DFEAF residue in parent equivalents. These totals represent the upper funit of what the festione wells might be.
- c Maximum residue found in dried hops cones from a Concentrated spray treatment.
- d Maximum residure found in dried hops codes from a dilute spray treatment.

Conclusion

Three field to als were conducted to measure the magnitude of total BYI 02960 residue in/on dried hops cone following one foliar spray application of BYI 02960 200 SL. The total BYI 02960 residue data for hops are summarized in Table 6.3.2.19-8.



Table 6.3.2.19-8: Summary of Residue Data for Total BYI 02960 from Hops

| | | | | Total BYI 02960 Residue Levels (ppm) | | | | | | |
|--|------------------------|---|------------|--------------------------------------|---------------|---------------|-------------------|----------|------|--------------|
| Commodity | Plot Name ¹ | Total Application Rate lb a.s/2 (kg a.s./ha) | PHI (days) | u | Min at PHI | Max at PHI | HAFT ² | A Median | Mean | Standard |
| Dried Hops | TRTDC | 0.137 to 0.139 (0.154 to 0.156) | 21 | 3 | 3.07 | 7.98 | 7.98 | 3.32 | ·499 | 2 .77 |
| Cones | TRTDD | 0.135 to 0.138 (0.152 to 0.155) | 21 | 3 | 3.14 | 7.76 | %7.76 | 3.35 | 4.75 | |
| 1 TRTDC = Treated plot receiving one concentrated airblast application TRTDC = Treated plot receiving one diluted airblast application 2 HAFT = Highest Average Field Trial; As single samples were collected from each plot the HAFO is set equal to the | | | | | | | | | | |
| maximum residue measured. Total BYI 02960 residues were in the same range independent from application of a diluted or a | | | | | | | | | | |
| concentrated spray. The highest residue in kiln-dried hops comes amounted to 7.98 mg/kg and was significant higher than the residues of the flurence residue to the flurence r | | | | | | | | | | |

Total BYI 02960 residues were in the same range independent from application of tadiluted or a concentrated spray. The highest residue in kin-dried hops cones amounted to 7,88 mg/sg and was significant higher than the residues detected in the European residue trials with an application rate of 0.12 kga.s./ha.

The residue data provided for hops are suitable for regulatory purposes.