



Science For A Better Life

High-quality
strawberries,
low residue levels
and good
storability



food chain partnership



The Dutch Strawberry Project

How it all started

Changing a spraying schedule is a risky business for a strawberry grower. For this reason, DLV Plant initiated a project to examine spray schedules, residue levels and the consequences for quality and products (also during storage). The aim was to guide growers on the best possible spray schedules that would reduce residue levels but still maintain the fruits' high quality and storability. The project began in 2009 and in all six years valuable results were collected.

When the project started, Bayer CropScience already had a very interesting portfolio of products to control fruit rot (e.g. Teldor). But from 2010 onwards, there were also interesting new developments, such as Luna® Sensation and Serenade®. That was why DLV Plant and Bayer were both interested in working together to develop a schedule for strawberries that would fulfill the food chain's demands.

What we aimed to achieve

The most important objective was to maximize the potential market for Dutch strawberries in Europe by offering growers an effective botrytis and mildew schedule that also results in low residue levels at harvest. The challenge was to reduce the number of active ingredients at harvest to five, and to reduce levels to a maximum of 33% of the MRL. However, lower residue levels could only be accepted if there was no reduction in quality and increase in fruit rot at harvest or during the on-going supply chain.



Who is involved

DLV Plant: An important independent advisory company in strawberries, with clients throughout the Netherlands and across the world. DLV Plant gains its know-how through internal or external trials performed in the Netherlands or abroad. Advice to growers on how to maximize results and information about the latest market-relevant developments, e.g. customer demands, are key aspects of the DLV Plant service portfolio.

The Greenery: A worldwide importer and supplier of a complete range of fresh fruit and vegetables to leading retailers, and a company determined to ensure their secondary requirements are also met.

Bayer: A leading crop science company with the expertise to provide concrete advice on crop protection schedules and products – both their own and competitors' – in order to achieve the best possible results in a fungicide spray schedule for strawberries.



The integrated crop solution

The main diseases which any integrated crop solution has to deal with are fruit rot (mainly *Botrytis cinerea*) and mildew (*Sphaerotheca macularis*). Advisory staff from DLV Plant conducted demonstration trials, in which relevant standard programs were included, and assessed the results. Residue analyses were conducted at regular intervals and fruit rot assessed at harvest and after storage.

One outcome of the spray schedule developed on the basis of this trial work was that positioning Luna® Sensation in alternation with, for example, Switch during blossoming, and

applications that included Serenade® after blossoming resulted in good-quality strawberries, good storability in the chain to the consumer, and residue levels that fulfilled the secondary requirements of all the relevant retailers in Europe. The spray schedule developed included biological crop protection products that worked with chemical ones in such a way that productivity and quality remained high. Of course, the use of biologicals in the crop protection program also lessened the environmental impact of the entire spray schedule.



What we achieved

The know-how gained from the demonstration trials has been passed on to Dutch strawberry growers by DLV Plant. Now the latter is in a position to advise growers on the best possible schedules to fulfill retailers' secondary requirements, while at the same time ensuring the same high quality is maintained and fruit rot does not increase either.

Bayer, for its part, learned a great deal about the residue behavior of fungicides in strawberries, how to optimize spray schedules for the optimum fruit rot and storage results, and how to best position Serenade in a crop protection schedule for this crop.

Last but not least, The Greenery now knows how best to market high-quality Dutch strawberries right through to the supermarket shelf.

Next steps

The Food Chain Partnership project reached its final stages in 2015. The results achieved over six years were confirmed and the fungicide spray schedules fine-tuned.



left:
Sven Clemens
Researcher/Advisor Strawberries
DLV Plant

right:
Wes Janssen
Crop Advisor
Bayer CropScience

food chain partnership



Consumers are becoming increasingly conscious of the need for healthy nutrition. Food Chain Partnerships help to supply consumers with high-quality fresh produce, which forms the basis of a healthy diet. But such partnerships can only succeed if they involve every player in the food chain – from the farmer and processor to the exporter or importer and retailer. Bayer CropScience has the global experience and cutting-edge expertise to create a successful partnership at every level.



Science For A Better Life

For more information contact:

Bayer CropScience SA/NV
Energieweg 1
3641 RT Mijdrecht,
The Netherlands

Phone: +31 2972 8 0329
Mobile: +31 6533 8 8780
Fax: +31 2972 8 0297
Email: jolanda.wijsmuller@bayer.com

Bayer CropScience AG
Food Chain Management
Alfred-Nobel-Str. 50
40789 Monheim
Germany

Phone: +49 2173 38 4828
Fax: +49 2173 38 3383
Email: foodchainpartnership@bayer.com
Internet: www.foodchainpartnership.com



© 2016 by Bayer CropScience
FCP-16-1623

DLV Plant
Agro Business Park 65
6708 PV Wageningen
The Netherlands

Phone: +31 3174 9 1578
Mobile: +32 4776 8 3734
Fax: +31 3174 6 0400
Email: sven.clemens@dlv.be

The Greenery
Spoorwegemplacement 1
2991 VT Barendrecht
The Netherlands

Phone: +33 1806 2 4776
Internet: www.thegreenery.com