



Crop Science Field
Technology Showcase

Fields of Opportunity



August 11, 2022

Bayer Investor Relations





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Guidance at constant currencies, not including portfolio divestitures if not mentioned differently.



Event Agenda

Le Meridien Hotel, St. Louis/Clayton and Jerseyville Agronomy Center

August 11th, 2022

6:30 am/ 7:00 am	<i>Breakfast</i> <i>Welcome at Le Meridien</i>	Oliver Maier/Laura Meyer	Hotel - Le Meridien Ballroom
7:05 am	Opening Comments, Executive Leadership Panel Q&A	Rodrigo Santos, Bob Reiter, Jeremy Williams, Frank Terhorst, Kelly Gast	
7:45 am	<i>Break</i>		
8:00 am	<i>Travel to Jerseyville - Discovery Engines Videos</i>		Buses waiting outside hotel
9:15 am (2 hrs 40 min)	Rotating Field Stops – Sustainable Full System Solutions <ul style="list-style-type: none"> Transforming Corn Production, featuring the Smart Corn System Leading in LATAM Soybean Production Solutions Next-Generation Technology for NA Soybean Growers Enhancing Sustainability and Productivity in Cotton and Advancing Wheat through Genetics and Disease Mgmt. 	John Chambers, Tom Eickhoff, Kelly Gillespie, Luis Offa, Marcio Santos, Santiago Schiappacasse Jennifer Ralston, Rachel Rama, Ty Vaughn Scott Bollman, Jessica Christiansen Frank Goehlich, JD Rossouw	Jerseyville Agronomy Center
12:00 pm	LATAM Customer Experience	Cristian Dalben, Jose Perilla	
12:45 pm	Closing Comments	Rodrigo Santos	
1:00 pm	<i>Lunch</i>		
1:30 pm	<i>End of Day</i>		Buses depart for STL Airport/Hotel – Le Meridien



Index

// [Executive Leadership Panel Presentation](#)

// [Showcase Field Demonstrations](#)

- 1 [North America Corn](#)
- 2 [North America Soybeans](#)
- 3 [Cotton](#)
- 4 [Cereals](#)
- 5 [Latin America Soybeans](#)

// [Customer Bios](#)



Crop Science Field
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August 11, 2022

Executive Leadership Panel Presentation





Crop Science Executive Leadership Panel



Rodrigo Santos

President,
Crop Science Division



Robert Reiter, Ph.D.

Head of R&D,
Crop Science Division



Jeremy Williams, Ph.D.

Head of Climate LLC and
Digital Farming Solutions



Frank Terhorst

Head of Strategy,
Crop Science Division



Kelly Gast

CFO,
Crop Science Division



Vision / Health For All, Hunger For None



> Win by being more grower centric

Purpose: Shaping agriculture for the benefit of farmers, consumers and the planet

Pillars:

- // Operational Excellence
- // World Class Innovation
- // Digital Transformation
- // New Standards in Sustainability

Strategic Ambition

Perform:

Grow above market and deliver strong returns

Transform:

Achieve 100% digitally enabled sales by 2030

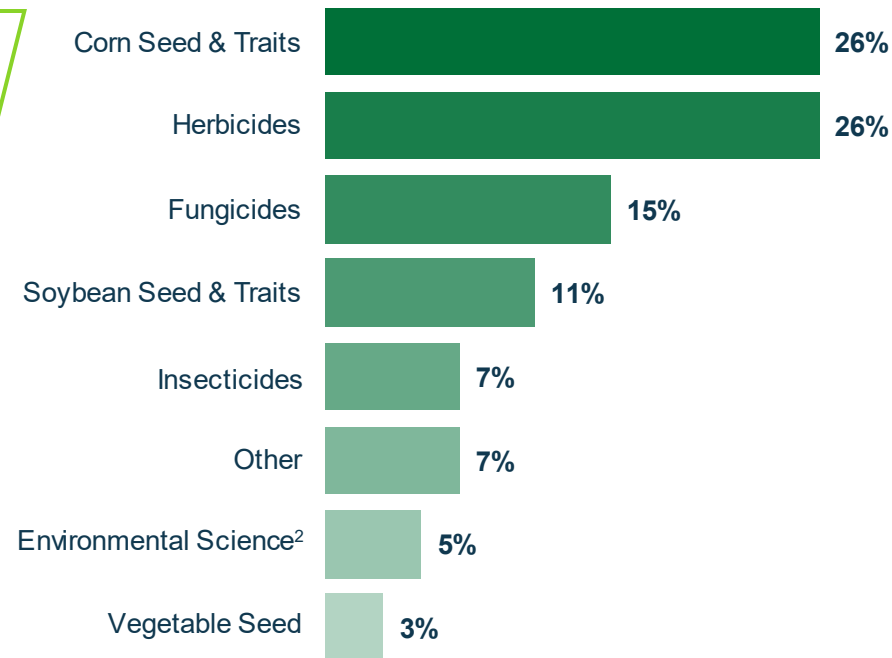


Growers Worldwide Recognize the Value We Deliver

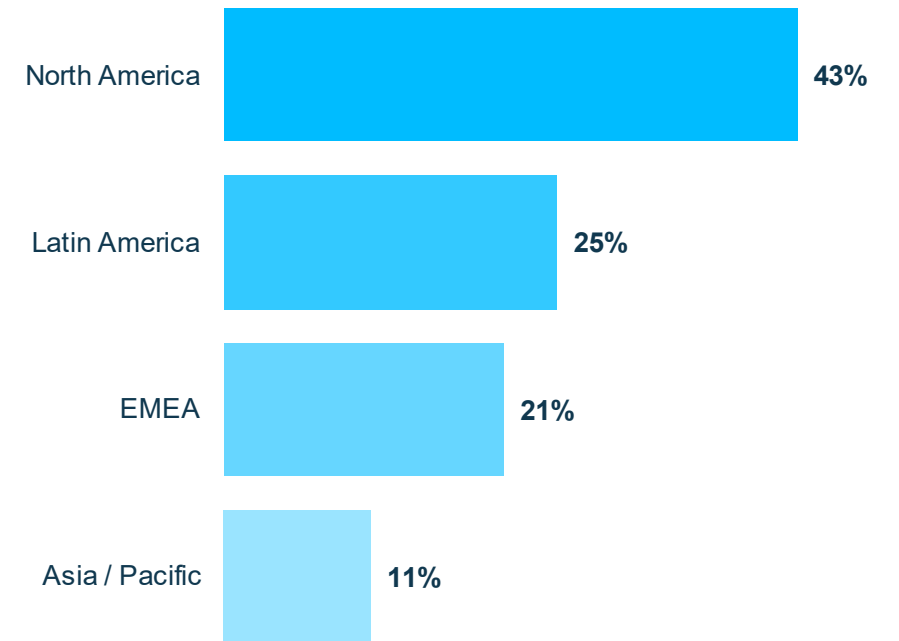
#1 in Seed & Traits Sales with Leading Crop Protection Portfolio in €100bn Global Ag Input Market

Bayer Crop Science 2021 Sales (€20.2bn)

Sales by Product Line



Sales by Region



#1 Market Position

Corn Seed & Traits
Herbicides
Soybean Seed & Traits

#2 Market Position

Fungicides
Vegetable Seed

#3 Market Position

Insecticides

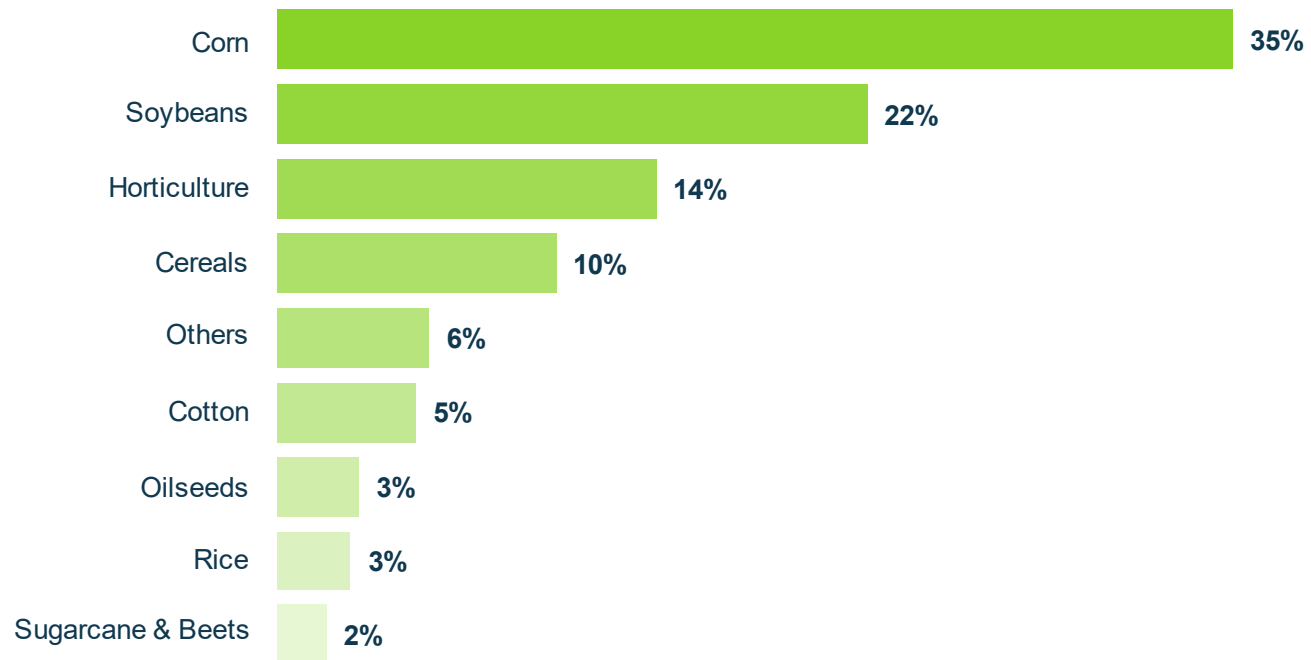
¹ Source: Company estimates. Market positions based on 2021 data; ² announced definitive agreement to sell Environmental Science Professional business in March, 2022



Supporting Growers Globally in High Value, Broad Acre Crops

Bayer Crop Science 2021 Sales¹

Sales by Crop Served



¹ Source: Company estimates. Based on 2021 data, excluding Environmental Science sales. Crop protection sales allocated to crops where they are applied. "Others" includes digital farming solutions, non-commercial crops, and non-identified crops.





Corn, Soybean & Cotton Seed Share Unmatched

Broad Licensing of Germplasm and Biotech Traits Expands Reach to ~330m Acres Annually; Underpins >€2bn Annual Licensing Revenue in Crop Science

United States #1 Market Position



Corn

Market (acres) ~93m
Seed Share >55%



Soybean

~87m ~40%



Cotton

~11m ~65%

Europe #2 Market Position



Corn

Market (acres) ~60m
Seed Share ~20%

Brazil #1 Market Position



Corn

Market (acres) ~50m
Seed Share ~30%

Mexico #1 Market Position



Corn

Market (acres) ~5m
Seed Share >65%²

Argentina #1 Market Position



Corn

Market (acres) ~20m
Seed Share ~60%²

South Africa #1 Market Position



Corn

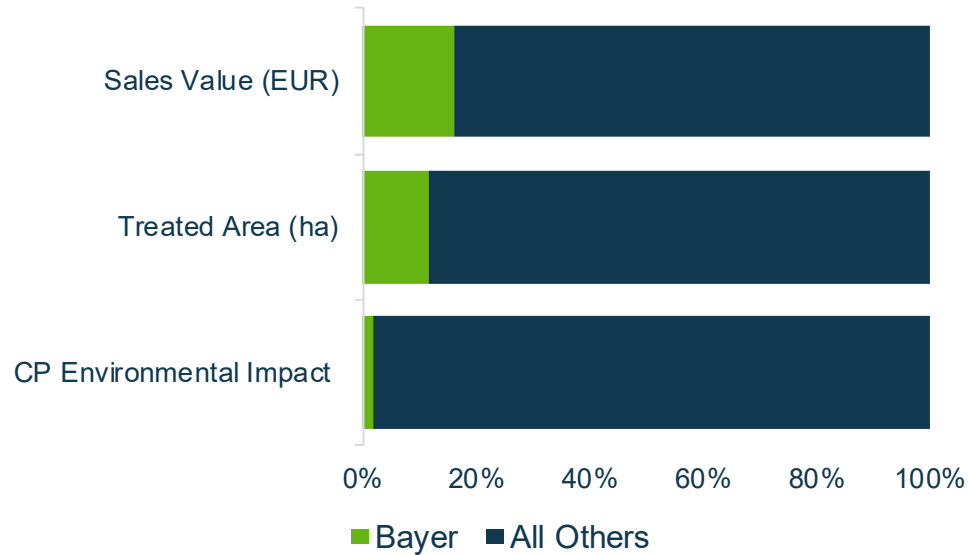
Market (acres) ~6m
Seed Share ~70%

Note: Size of market, market position and seed (germplasm) share measured as of 2021. Market size relates to hybrid corn acres.
¹ Eu27 + UK, Russia and Ukraine; ² In hybrid corn market only



Driving Higher Value with Lowest Estimated Environmental Impact Crop Protection Portfolio Relative to Sales and Treated Value

2020 Crop Protection Industry's Environmental Impact



*Bayer Crop Protection accounts for nearly **12%** of the global treated area, yet less than **2%** of the environmental impact*



Key Crop Protection Products



Preliminary impact assessment has been conducted by Technical University of Denmark (DTU) based on the PestLCI/USEtox® models. PestLCI secondary distributions currently out of scope. Impact assessment limited to current scientific consensus of USEtox®: aquatic organisms and the substances which can be characterized in USEtox®. Terrestrial and pollinator impact assessment is currently not included in USEtox®. CP application data mostly from third parties such as Kynetec/Kleffmann. In some countries based on Bayer estimates.

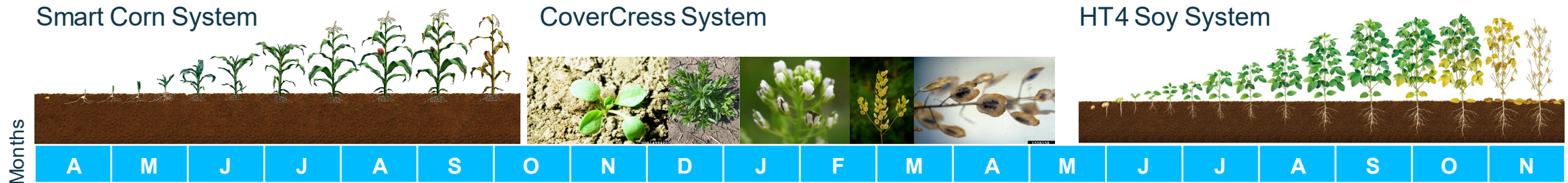


CoverCress : New Cash Cover Crop to Serve as Low-Carbon Renewable Feedstock for Growing Biodiesel Market

Bayer Acquires Majority Share (65%) in Sustainable Low-Carbon Oilseed Producer CoverCress Inc. (CCI)

Example: CoverCress seed fit in Bayer rotational corn/soy crop system

Unique Rotational Contract Offer & Agronomic System
Lowers Carbon with Higher Oil for Renewable Diesel and Creates Carbon Value for Farmer – 3 Crops in 2 Seasons



CoverCress:

- Low input rotational cash crop with ecosystem benefits of a cover crop and attractive economics of an oilseed crop
- Carbon sequestration and ecosystem services potential
- Developed through gene editing and advanced breeding tools; improved the oil profile, protein content and yield of field pennycress
- Niche market in U.S. Midwest initially; within draw area in proximity to crushing and refining facilities
- Expect to launch crush-ready CoverCress product mid-2020's

The Need:

- Majority of aviation and industrial transportation sector emissions reductions to come from sustainable low carbon intensity biofuels, due to lack of electrification options
- Expect demand for 6bn gallons of Renewable Diesel/Sustainable Aviation Fuel by 2030

The Business Model:

- Closed Loop Production Contract: Farmers paid a premium to contract produce CoverCress; Bunge delivers premium valued oil to Chevron to convert to Renewable Diesel/Sustainable Aviation Fuel
- CoverCress receives payment from crusher (e.g. Bunge) for the crop delivered; owners share profits: *Bayer 65%; Chevron and Bunge 35%*



Climate FieldView Digital Tools Reach >200m Subscribed Acres in 23 Countries; Fueled by Grower and Field Trial Performance Data

Climate Fieldview

>200m subscribed acres

#1 brand in digital ag¹

Operates in 23 countries



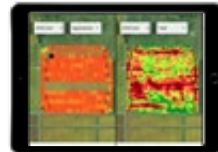
Largest database of grower and field trial seed performance data in industry

>70 partners on platform

In-cab visualization



Performance Visualization



Performance Evaluation



Field Health Images



Prescription Delivery



¹ according to Kynetec December 2021 FieldView Brand Tracker



Digital Farming Solutions Underpin and Enhance Our Ability to Bring Transformational Solutions to Agriculture

Our Vision for Digital Agriculture

Increase **yield** and improve **profitability**

Glean insights from data to help **manage risk** and address **variability**

Manage fields down to the square meter, to farm more efficiently and sustainably

Seamlessly collect, visualize and analyze data to enable **more informed decisions**

Three Core Value Drivers



Franchise Value



Downstream Value

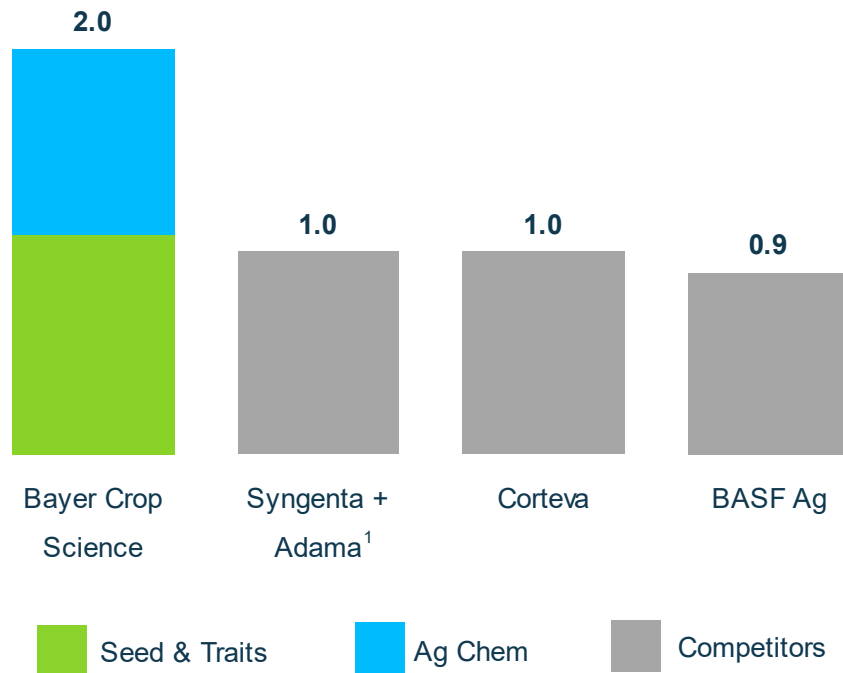


Platform Value



Industry Leading R&D Investment Powers Pipeline Potential

2021 Ag R&D Investment (€bn)



Top Talent:

>7,100
R&D employees²

>100
Key Collaborations

Generating Next Generation Solutions:

>500
Hybrids & Varieties Deployed³

15
New Biotech Traits in Development

>300
New Crop Protection Registrations³

30-60
New Molecules in Field Trials Annually

2021 reported results, exchange rate: FY 2021: ~1.18 USD/EUR

¹ Represents the legacy Syngenta results plus Adama

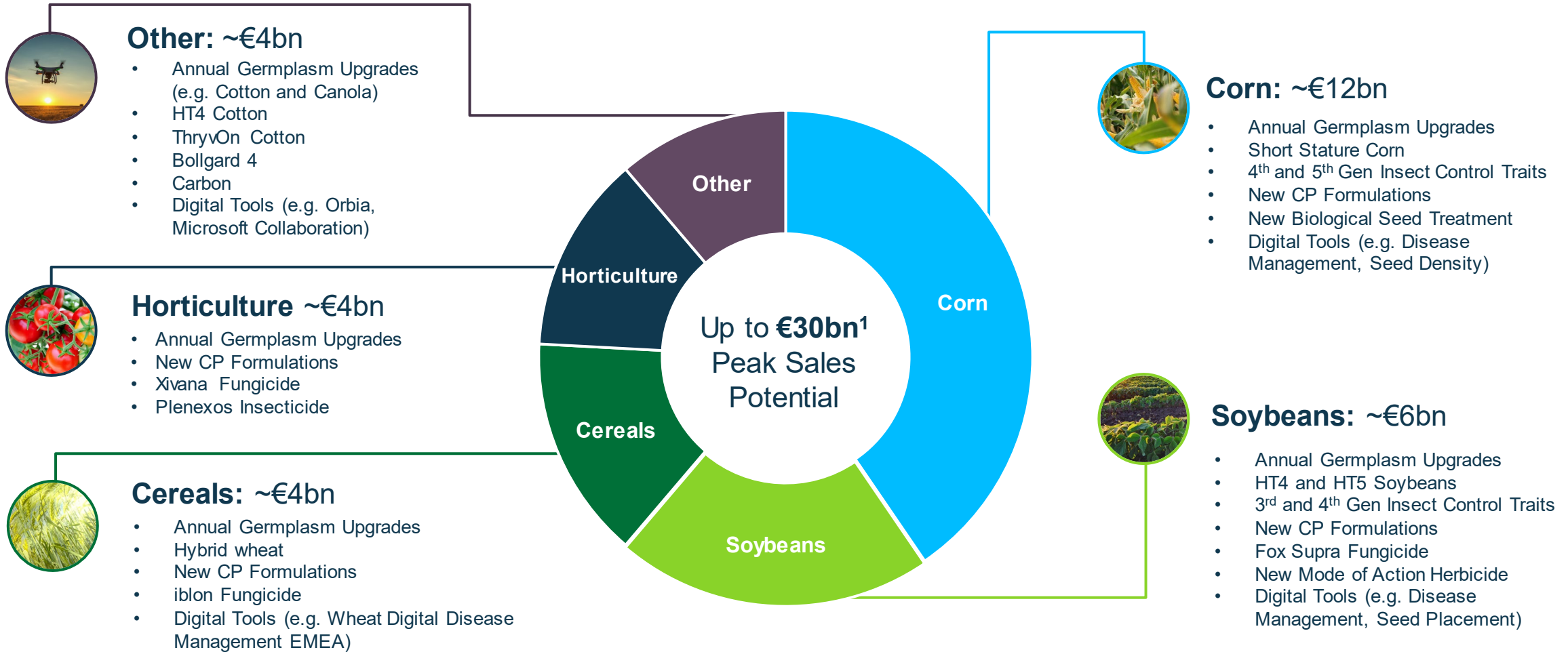
² Includes permanent and temporary employees

³ 2021



Crop Science Pipeline Potential Balanced Across Key Global Crops

Seed, Trait, Crop Protection and Digital Solutions Peak Sales Potential by Crop Served



¹ Represents non-risk adjusted estimated peak sales for the combined breeding, biotech, crop protection and environmental science pipelines, as well as new business models and new value areas. ~50% incremental sales value. Estimated to reach ~40% of peak sales potential by 2031, ~40% by 2032-2035 and ~20% by 2036+, Note: Projects listed per crop are subset of the pipeline; selected top contributors to peak sale potential



Larry Bortz Farm

Dekalb Asgrow Dealer

Post High-Wind Storm on
July 5, 2022



Rudd, Iowa

July 6, 2022

Conventional Height Corn

Conventional
Height Corn



Short-Stature Corn





Innovative, Sustainable Solutions to Address Global Challenges

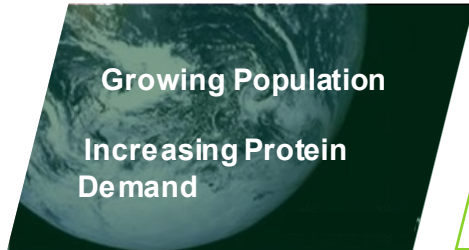
Global Challenges

Our Goals

Our Priorities

Our Solutions

In the Field Today



Growing Population
Increasing Protein Demand

30%
Reduction in Crop Protection impact on the environment

Producing & Protecting Higher-Yielding Seeds

- High-yielding, disease-resistant seeds
- Next-generation biotech traits and crop protection to protect yield



Water Quality
Soil Health

30%
Reduction in Crop Protection impact on the environment

Using Fewer Natural Resources

- Novel small molecules and biological solutions with reduced environmental impact
- Short stature corn provides the opportunity to unlock additional yield potential by optimizing crop inputs



Climate Change
Sustainable Energy Sources

30%
Reduction of field greenhouse gas emitted per kg of crops produced

Advancing a Carbon Smart Future For Ag

- Digital tools for carbon sequestration measurement, precise input application
- Next-generation herbicide-tolerant traits to support no-till/ conservation tillage systems

Solutions must serve growers large and small; Empowering 100m smallholders by 2030



The Next Frontier: Evolution to Digitally Enhanced System Solutions

Illustration: NA Smart Corn System Featuring Short Stature Corn



Win by being more grower centric

Discrete Solutions

Tailored Solutions

Crop System Solutions

SEEDS & TRAITS	CROP PROTECTION	DIGITAL
	 	 Performance Transparency Yield Analysis

SEEDS & TRAITS	OR	CROP PROTECTION	OR	DIGITAL
				Field Level Hybrid Seed Placement & Density
				Field and Zone Level Crop Protection Recommendations
				Field Level Fertility Prescriptions
				Targeted Application Recommendations

SEEDS & TRAITS	+	CROP PROTECTION	+	DIGITAL
				Field Level Hybrid Seed Placement & Density
				Field and Zone Level Crop Protection Recommendations
				Field Level Fertility Prescriptions
				Targeted Application Recommendations
Cover crops		Biological Solutions		



¹ Biotech approach in collaboration with BASF; ² VT4PRO™ with RNAi Technology corn products are expected to be commercially available for the 2024 growing season



Crop Science Executive Leadership Panel Q&A



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President,
Crop Science Division



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Head of R&D,
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Head of Climate LLC and
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Kelly Gast

CFO,
Crop Science Division



Fields of Opportunity

Jerseyville Agronomy Center

August 2022

North America
Soybeans

Cotton

Wheat

LATAM
Soybeans

North America
Corn





Corn

North America



John Chambers

Head of NA Market Development

Thomas Eickhoff, PhD

Head of Science, Digital Farming Solutions

Kelly Gillespie, PhD

Head of Digital Ecosystem Services

Fields of Opportunity

North America Corn



Short-Stature Corn
Conventional Height Corn

LEP4
TRECEPTA
CRW4
VT4PRO
SmartStax PRO
SmartStax
VT Double PRO

Herbicide Demo

Wind Damage Demo

Insect-Trait Pipeline

History of Corn

Bayer Commercial Hybrids

Early-Season Nitrogen Application Demo

Conventional Height Corn

Short-Stature Corn

Conventional Height Corn

Short-Stature Corn

Weed Infested

Wind Damage

Insect Damage

Smart Corn System

Nitrogen Deficient

Suboptimal Hybrid Selection

Disease Damage

Late-Season Fungicide Application Demo

Optimized Hybrid & Population Selection

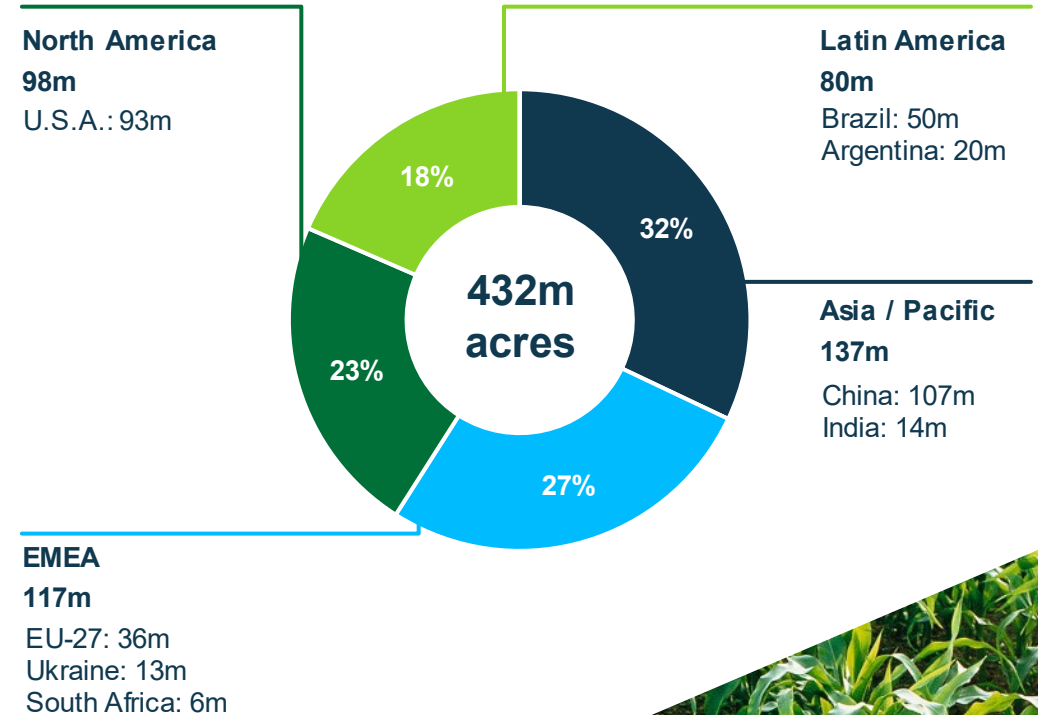


Corn Acreage has a Truly Global Footprint

About Corn

- // Total CP market globally: €8.4bn
- // Total Seed & Traits market globally: €15.5bn
- // Corn has a wide range of uses, mainly in livestock feed, ethanol fuel and food
- // Corn growers face several challenges: e.g. wind damage, sub-optimized hybrid placement/density, nitrogen deficiency, insect damage, weed and disease pressure

Major Corn Growing Geographies (planted hybrid acres, 21/22)¹



¹ Source: internal estimates, planted hybrid acres as of 2021

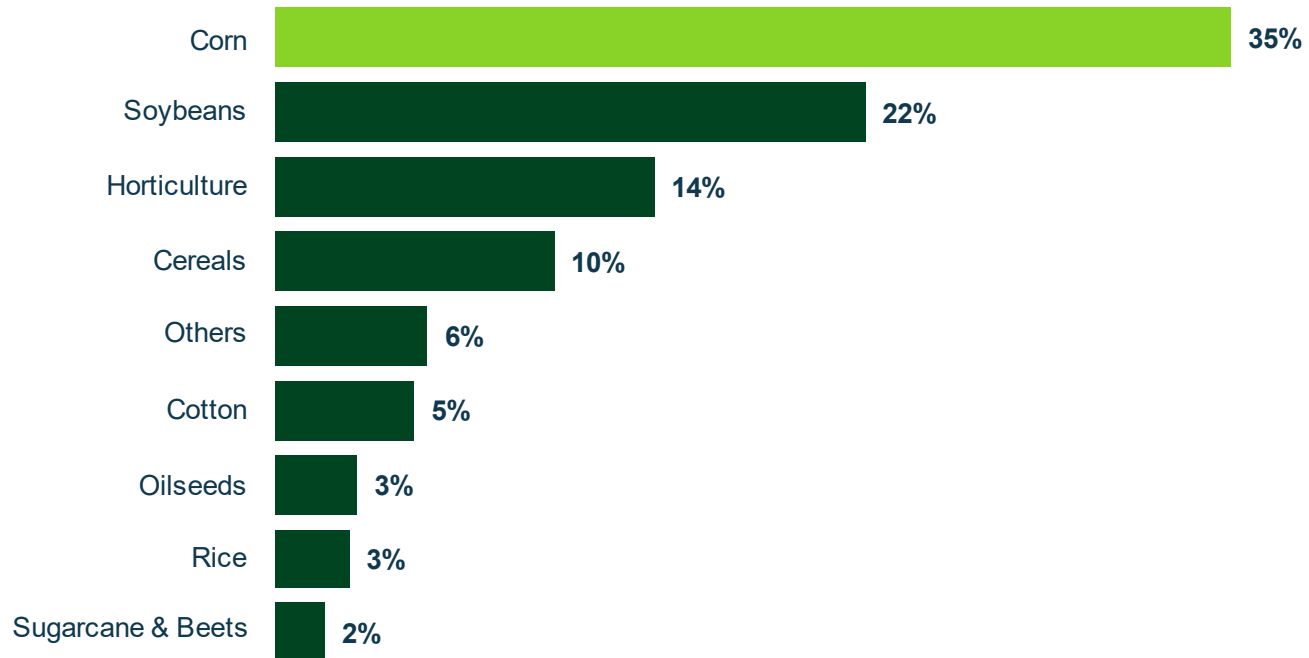




#1 Corn Seed & Traits Position Globally Enhanced by Excellent Herbicide & Fungicide Portfolio

Bayer Crop Science 2021 Sales¹

Sales by Crop Served



> Sales in Corn: ~€7bn

¹ Source: Company estimates. Based on 2021 data, excluding Environmental Science sales. Crop protection sales allocated to crops where they are applied. "Others" includes digital farming solutions, non-commercial crops, and non-identified crops.

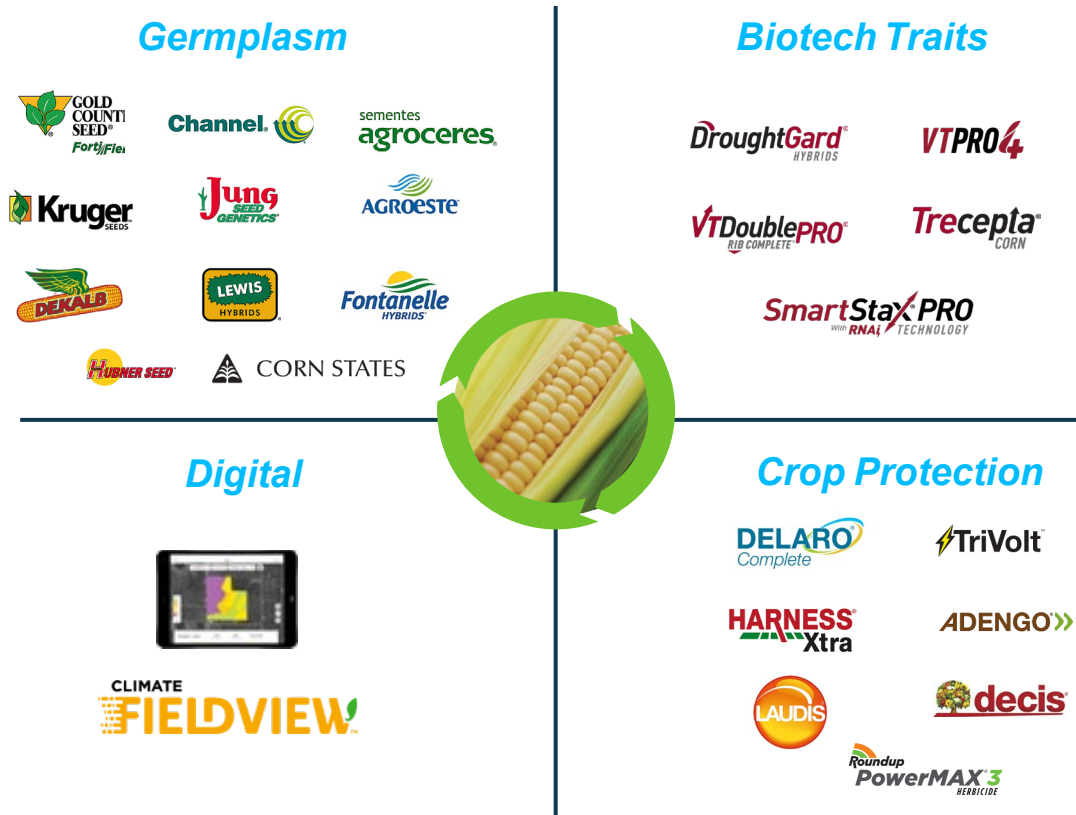


Global Leader in Corn Seed & Traits and Crop Protection

Bayer Global Corn Footprint

- // Corn Seed & Traits Sales in 2021: >€5bn
- // #1 Germplasm share of market in U.S., Brazil, Argentina, Mexico and South Africa
- // #1 U.S. biotech trait share of ~85% in corn
- // Upgrading trait offerings in the Americas with 3rd generation RNAi-based corn rootworm trait offered in SmartStax Pro in the U.S. and in VTPRO4 in Brazil
- // Deployed >250 hybrids globally in 2021 to sustain leading share positions
- // Crop Protection sales in corn primarily from herbicides and fungicides

Bayer Global Corn Portfolio¹



¹ Examples of key products in the Bayer portfolio; not a comprehensive representation



Deployed >250 Corn Hybrids in 2021 to Expand Leading Position

Foundational to Expected Growth in Our >€5bn Global Annual Corn Seed & Traits Sales

Mid-Term Key Growth Drivers in Corn

NEW



Bayer branded hybrids capture **#1 brand share position** in the U.S. in 2021.

United States #1 Market Position

Market Size: ~93m acres
Germplasm Share: >55%

Argentina #1 Market Position

Market Size: ~20m acres
Germplasm Share¹: ~60%

Mexico #1 Market Position

Market Size: ~5m acres
Germplasm Share: >65%¹

Europe #2 Market Position

Market Size²: ~60m acres
Germplasm Share: ~20%

Brazil #1 Market Position

Market Size: ~50m acres
Germplasm Share¹: ~30%

South Africa #1 Market Position

Market Size: ~6m acres
Germplasm Share: ~70%

Note: Size of market, market position and germplasm share measured as of 2021. Market size relates to planted hybrid acres.
¹ In hybrid corn market only; ² Eu27 +UK, Russia and Ukraine
³ SmartStax@PRO corn products will be commercially available for the 2022 growing season.
⁴ VT4PRO with RNAi Technology is not currently available for commercial sale or commercial planting. Commercialization is dependent on multiple factors, including successful conclusion of the regulatory process. The information presented herein is provided for educational purposes only and is not and shall not be construed as an offer to sell.

Launching CRW3 as a part of VTPro4, SmartStax Pro and VT4Pro stacked offerings in the near-term; game-changing short-stature corn expected launch in the mid-term in the U.S. and Brazil.





Rollout of Most Advanced Corn Rootworm Control Trait Continues

CRW3: Industry's-Only RNAi-Based Corn Rootworm Trait

LAUNCHED: Brazil 2021

~500k acres

VT PRO 4



- **Most advanced technology for control of insects in Brazil corn**
- Two modes below-ground insect control, including **CRW3**, plus two modes above-ground insect control and glyphosate tolerance

LAUNCHED: U.S. 2022

~100k acres

SmartStax PRO
With RNAi TECHNOLOGY



Corteva QROME Product (P1366Q)

2021 U.S. Field Results¹

- **SmartStax PRO with RNAi Technology had lower root injury scores 97.4% of the time**
- **SmartStax PRO: 0.28 nodes** of root injury **Qrome Products: 0.97 nodes** of root injury
- For each root node damaged by CRW larvae, a yield loss of ~15% can be expected.² Root injury score of **0.97 nodes** in a 200 bu/acre yield environment could result in **29 bu/acre yield loss**.
 - ~30m acres infested with CRW in the U.S.



¹ Head-to-head comparisons across 40 locations with corn rootworm pressure in the U.S. in 2021

² Tinsley, N.A., Estes, R.E. and Gray, M.E. 2012. Validation of a nested error component model to estimate damage caused by corn rootworm larvae. Journal of Applied Entomology. DOI:10.1111/j.1439-0418.2012.01776.x

³ SmartStax@PRO corn products will be commercially available for the 2022 growing season. ⁴ VT4PRO with RNAi Technology corn products are expected to be commercially available for the 2024 growing season.



Delaro Fungicide Offers Substantial Yield Potential

DELARO Complete **3** MoA

- Prothioconazole
- Trifloxystrobin
- Fluopyram**

- Highest performing foliar fungicide from Bayer
- Third MoA provides consistent control against Gray Leaf Spot, White Mold and Brown Spot
- Corn, soybeans

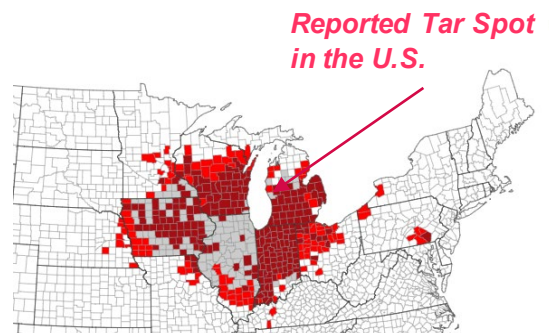
DELARO **2** MoA

- Prothioconazole
- Trifloxystrobin

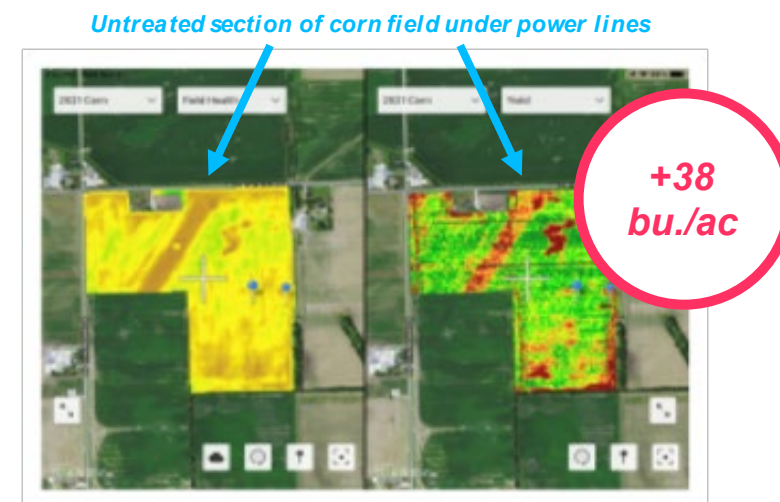
- High brand equity; “good value” brand
- Best-in-class, dual mode-of-action residual
- Corn, soybeans, pulses & sugarbeet

Tar Spot Fungal Disease in Corn

- // New fungal disease to the U.S. that infects corn leaves; capable of **reducing corn grain yields by up to 35%**
- // Can **reduce silage quality** and quantity
- // Crop **standability can be significantly impacted**, making harvest difficult, costly and extremely inefficient



Example:



2021 Grower Field trial with Tar Spot Disease, Braceville, IL
Climate FieldView™ Images

Treated Average: 239 bu./ac
Untreated Average: 201 bu./ac
Hybrid: DKC64-64RIB
First Spray: 7/30/21 Delaro

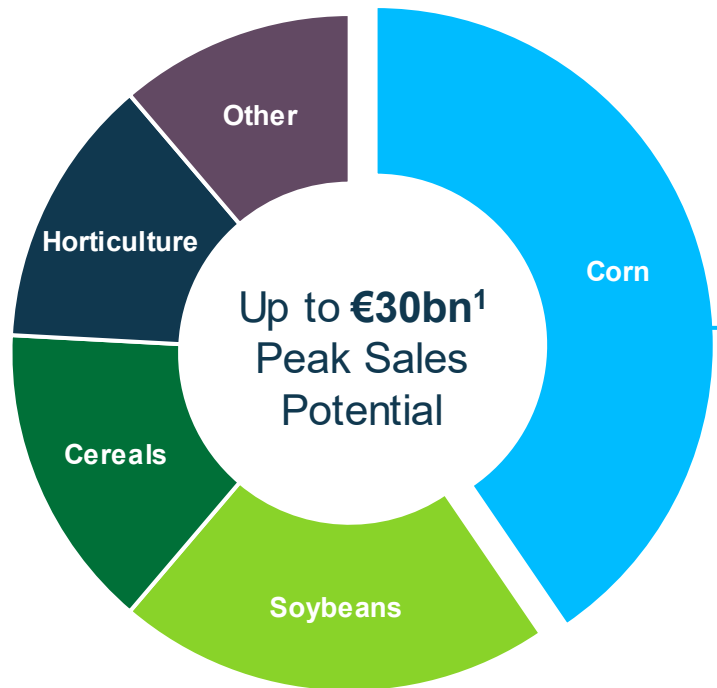


Annual Global Corn Germplasm Upgrade Underpins Corn Pipeline

Pipeline Potential Balanced Across Key Global Crops

Crop Science Pipeline Peak Sales Potential

Seed, Trait, Crop Protection and Digital Solutions by Crop Served



Corn²: ~€12bn Peak Sales Potential

- Annual Global Germplasm Upgrades
- Short Stature Corn (breeding & biotech approaches)
- 4th and 5th Generation Herbicide Tolerance Traits
- 4th and 5th Generation Lepidopteran Control Traits
- 4th Generation Corn Rootworm Trait
- New Crop Protection Formulations
- New Biological Seed Treatment
- Digital Tools (e.g. Seed Density, Disease Management)

¹ Represents non-risk adjusted estimated peak sales for the combined breeding, biotech, crop protection and environmental science pipelines, as well as new business models and new value areas. ~50% incremental sales value. Estimated to reach ~40% of peak sales potential by 2031, ~40% by 2032-2035 and ~20% by 2036+

² Projects listed per crop are subset of the pipeline; selected top contributors to peak sales potential



Short-Stature Corn Offers Transformational Shift in Production

Phase 4 Breeding Approach Expected in U.S. Pilot in 2023; Biotech Approach in Phase 3

Key Features and Benefits of Short-Stature Corn



Reduced Crop Loss

- Production stability with improved standability in high winds and challenging weather conditions
- Annual yield losses due to stalk lodging in the U.S. range from 5% to 25%¹



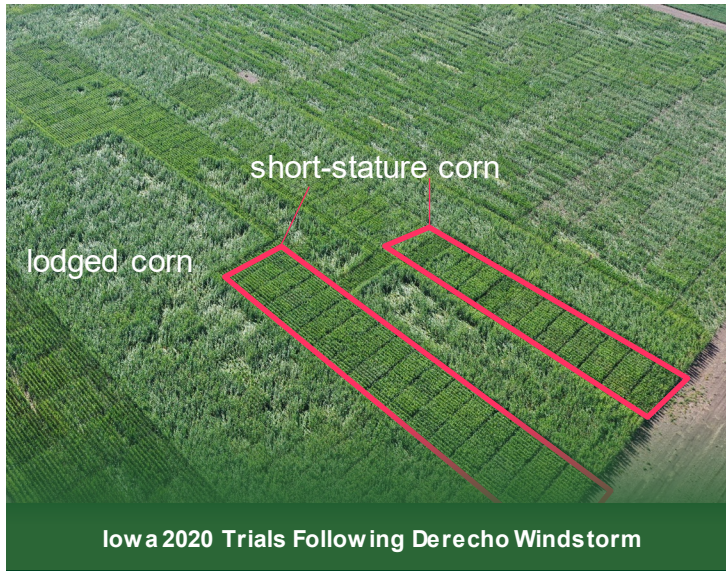
Precision of Crop Application

- Improved in-season crop access due to reduced height
- Supports tailored solutions with precise in-season crop protection



Increased Environmental Sustainability

- Potential to optimize use of key nutrients like nitrogen, as well as reducing land and water requirements
- Shows promise in unlocking yield potential through increased opportunity to optimize crop inputs, planting densities, and field placement.



Anticipated Fit on >220m Acres and Incremental Peak Sales Potential of ~€1bn for NA

¹ Purdue University (<http://www.extension.purdue.edu/ay/ay-262.html>)



Larry Bortz Farm

Dekalb Asgrow Dealer

Post High-Wind Storm on
July 5, 2022



Rudd, Iowa

July 6, 2022

Conventional Height Corn
visible lodging from high wind

Conventional Height Corn
visible lodging from high wind



Short-Stature Corn



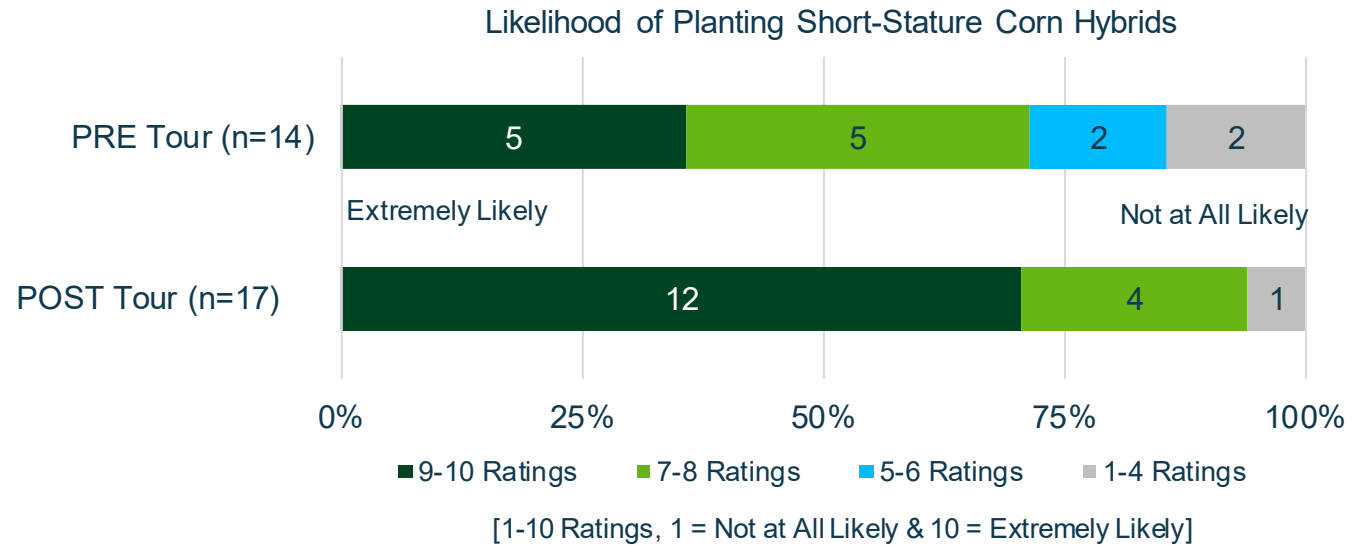


2023 U.S. Ground Breakers Field Trials

- 200-500 on-farm trials with growers
- ~65,000 acres

Growers Cite High-Interest in Short-Stature Corn

Top Producer Farmer Focus Group – Dyersville, IA August 2021



Online Farmer Survey, Feb/March 2020 (n = 900)

- When full choice available, **75% of farmers** indicated they **would likely plant** some acres of short stature corn, and had it been available in 2020, could have planted **as much as one third of their acres** to it.
- **Highest likelihood to plant a new trait vs. previous trait introductions, surpassing the previous high for SmartStax**



Weed Control: Focused on Unlocking Greater Flexibility

Herbicide sales in 2021: **€5.3bn**, Pipeline Peak Sales Potential of **~€3bn¹**

TriVolt™ Pre-emergence selective corn herbicide

- Contains 3 AIs: Thiencazabzone, Flufenacet and Isoxaflutole to help growers mitigate resistance challenges
- TriVolt goes to work to provide overlapping residual control of key broadleaf weeds and grasses.

Launched in 2022



Convintro² Waterhemp and Palmer Amaranth control in North America

- Diflufenican is a new site of action for use in corn and soybeans in North America
- Diflufenican is already used in Europe and will be available for burndown and pre-emergence

To Launch in mid-decade



¹ Internal estimates; ² Not yet registered in U.S. or Canada and is subject to approval



The Next Frontier: Evolution to Digitally Enhanced System Solutions

Illustration: NA Smart Corn System Featuring Short Stature Corn



Win by being more grower centric

Discrete Solutions

Tailored Solutions

Crop System Solutions

SEEDS & TRAITS	CROP PROTECTION	DIGITAL
	 	 Performance Transparency Yield Analysis

SEEDS & TRAITS	OR	CROP PROTECTION	OR	DIGITAL
		 		Field Level Hybrid Seed Placement & Density
		 		Field and Zone Level Crop Protection Recommendations

SEEDS & TRAITS	+	CROP PROTECTION	+	DIGITAL
				Field Level Hybrid Seed Placement & Density
				Field and Zone Level Crop Protection Recommendations
				Field Level Fertility Prescriptions
				Targeted Application Recommendations



¹ Biotech approach in collaboration with BASF; ² VT4PRO™ with RNAi Technology corn products are expected to be commercially available for the 2024 growing season



Soybeans

North America

Jennifer Ralston, PhD
North America Soybean Strategy Lead

Rachel Rama, PhD
Head of Small Molecules R&D

Ty Vaughn, PhD
Head of Plant Biotechnology

Fields of Opportunity

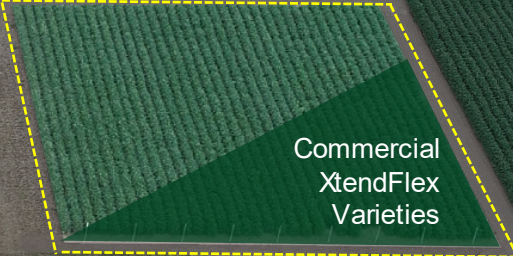
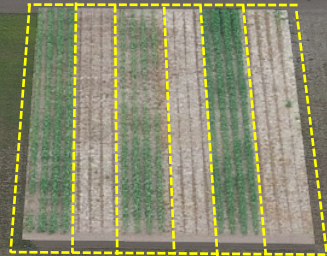
North America Soybeans



Drone Application Demo

HT5
Non-Treated Check
HT4
Non-Treated Check
XtendFlex
Non-Treated Check

Next Generation Herbicide Efficacy Demo



Commercial XtendFlex Varieties

HT4 System Recommendation



Cover Crop - Rye Grass

Cover Crop - CoverCress

Season-Long Weed Control Flexibility with HT4 Demo



Commercial XtendFlex Varieties

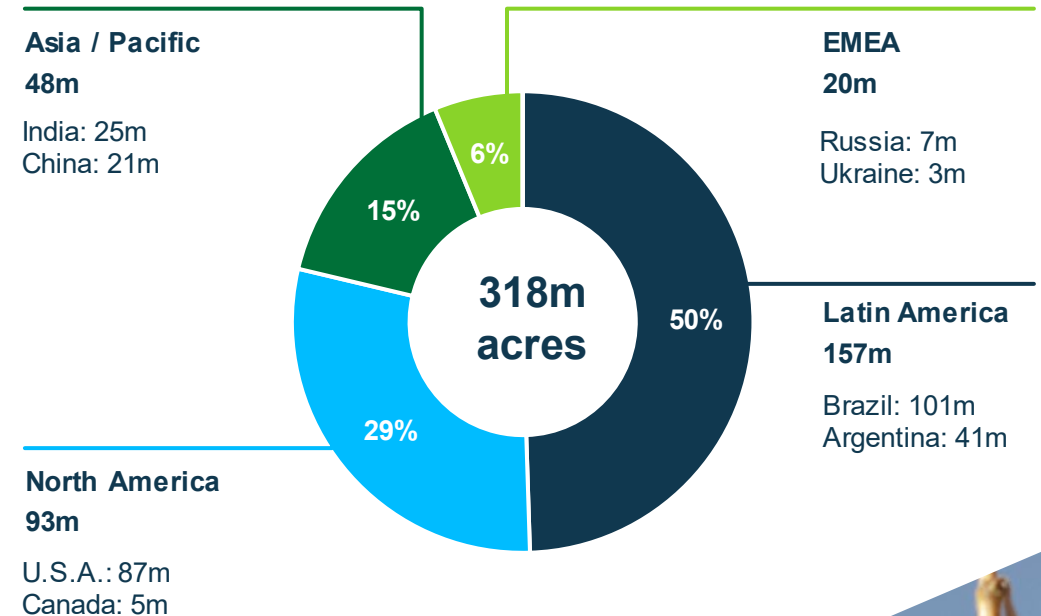


The Americas Lead the World in Soybean Production

About Soybeans

- // Total **CP market** globally: **€12.0bn**
- // Total **Seed & Traits market** globally: **€5.9bn**
- // Soybeans have a wide range of uses; **meal** is primarily used as a **high protein livestock feed**, and soybean **oil in food and industrial uses** like biodiesel
- // Continually evolving **weed resistance** drives need for innovation in **North America**, while management of **insect resistance** is key in tropical **Brazil**
- // Evolving **fungal diseases** can also be devastating to yields in **Brazil**; requiring state-of-the art fungicides to manage

Major Soybean Growing Geographies (planted acres, 21/22)¹



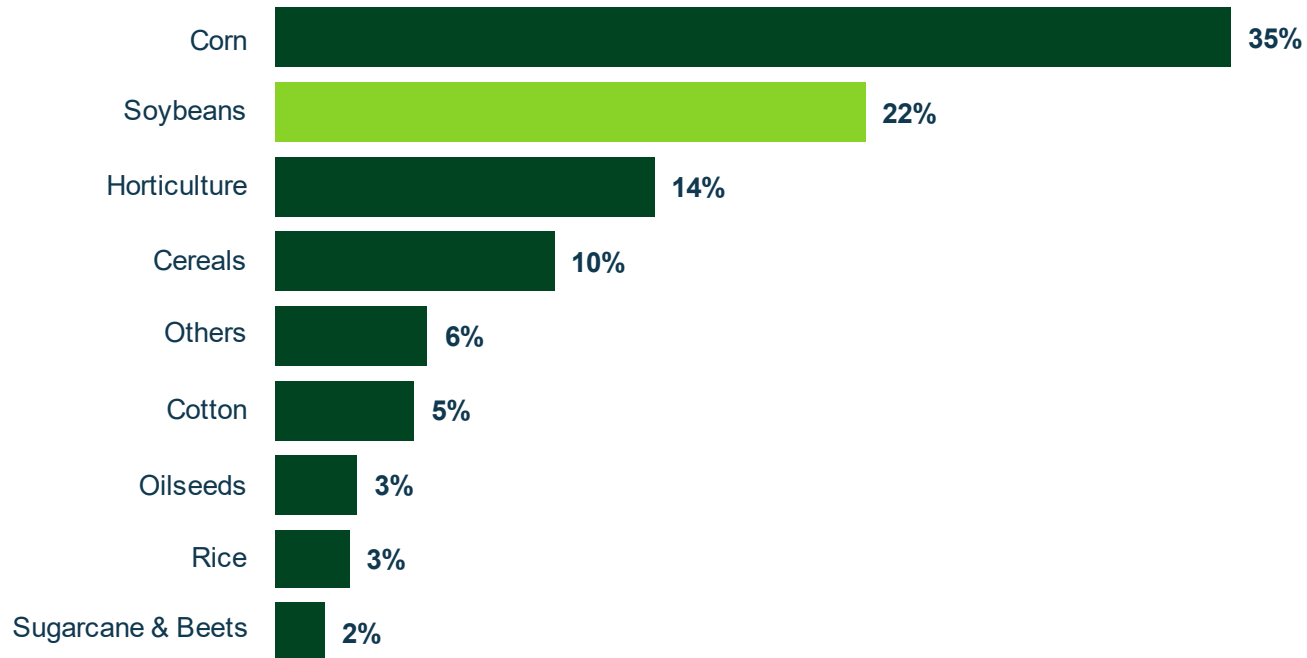
¹ Source: internal estimates, planted acres as of 2021



#1 Global Soybean Trait Platform Complemented by the Leading Soybean Fungicide Franchise in LATAM

Bayer Crop Science 2021 Sales¹

Sales by Crop Served



> Sales in Soybeans: ~€4bn

¹ Source: Company estimates. Based on 2021 data, excluding Environmental Science sales. Crop protection sales allocated to crops where they are applied. "Others" includes digital farming solutions, non-commercial crops, and non-identified crops.



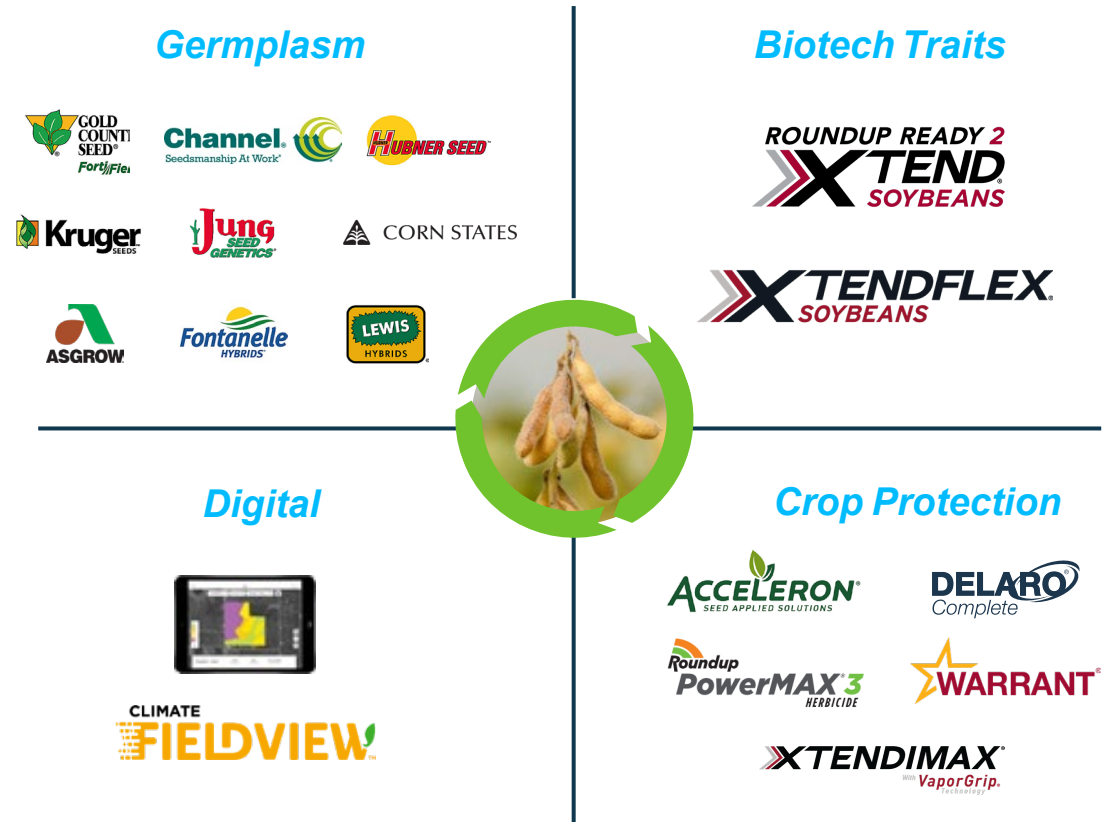


North America's Leader in Soy Seed & Traits and Crop Protection

Bayer NA Soybean Footprint

- // #1 Soybean Seed and Traits Platform in North America
 - // #1 U.S. Germplasm share of 35-40%
 - // #1 U.S. Trait share of >55%
- // Deployed >150 new varieties in 2021; offer >850 varieties in North America
- // When using XtendFlex soybeans as part of the Roundup Ready Xtend Crop System, farmers see a **2.5 bu/acre advantage**² vs. Enlist™ Weed Control System² in farmer managed herbicide systems trials in farmer managed trials
- // The Roundup Ready Xtend Crop System controls >335 weeds³

Bayer NA Soybean Portfolio¹



¹ Examples of key products in the Bayer portfolio; not a comprehensive representation ² 2021 Farmer Managed Soybean System Trials (67 locations in 2021 reporting data located with 12-IA, 11-IL, 9-IN, 3-MI, 9-MN, 8-NE, 5-OH, 2-PA, 2-WI, 1-ND, 1-SD, 4-KS). Significant at P ≤ 0.05 LSD at 1.2 Bu/A as of 01/05/2022. Roundup Ready® Xtend Crop System data = XtendFlex® soybeans with a farmer-selected weed control program that may include dicamba, glyphosate, glufosinate and various residual herbicides. Enlist™ Weed Control System data = Enlist E3® soybeans with a farmer-selected weed control program that may include glyphosate, Enlist One® herbicide, Liberty® 280 SL herbicide and various residual herbicides. ³ Based on the EPA herbicide labels for the herbicide recommended use in each system as of January 2021. XtendFlex soybeans include Xtendimax herbicide with VaporGrip Technology, Roundup PowerMAX and Liberty herbicide.



XtendFlex and XtendiMax Defend #1 Soybean System in NA

~16m XtendFlex Acres in First Season in North America; expect >20m in 2022



#1 NA soybean system¹

Only system with **14-days residual activity**; controls significantly more weeds than the Enlist system³

~**50m** acres in soybean system in 2021; expect to retain **leading position** in 2022



- Provides tolerance to dicamba and glyphosate
- Recommended Herbicide Pairings:



- Proven performance, high-yield potential, strong agronomics
- Broadly licensed across the industry



- Adds glufosinate tolerance to the proven performance of Roundup Ready 2 Xtend Technology to provide additional flexibility to manage tough-to-control weeds
- Recommended Herbicide Pairings:



- Expect **>20m** acres in the U.S. in 2022

Top volume XtendFlex soybeans have a **2.5+bu/acre advantage** vs. Enlist E3 soybeans²

¹ Bayer internal estimates; ² 2021 Farmer Managed Soybean System Trials (67 locations in 2021 reporting data located with 12-IA, 11-IL, 9-IN, 3-MI, 9-MN, 8-NE, 5-OH, 2-PA, 2-WI, 1-ND, 1-SD, 4-KS). Significant at P ≤ 0.05 LSD at 1.2 Bu/A as of 01/05/2022. Roundup Ready® Xtend Crop System data = XtendFlex® soybeans with a farmer-selected weed control program that may include dicamba, glyphosate, glufosinate and various residual herbicides. Enlist™ Weed Control System data = Enlist E3® soybeans with a farmer-selected weed control program that may include glyphosate, Enlist One® herbicide, Liberty® 280 SL herbicide and various residual herbicides; ³ Based on EPA labels for the chemistries.

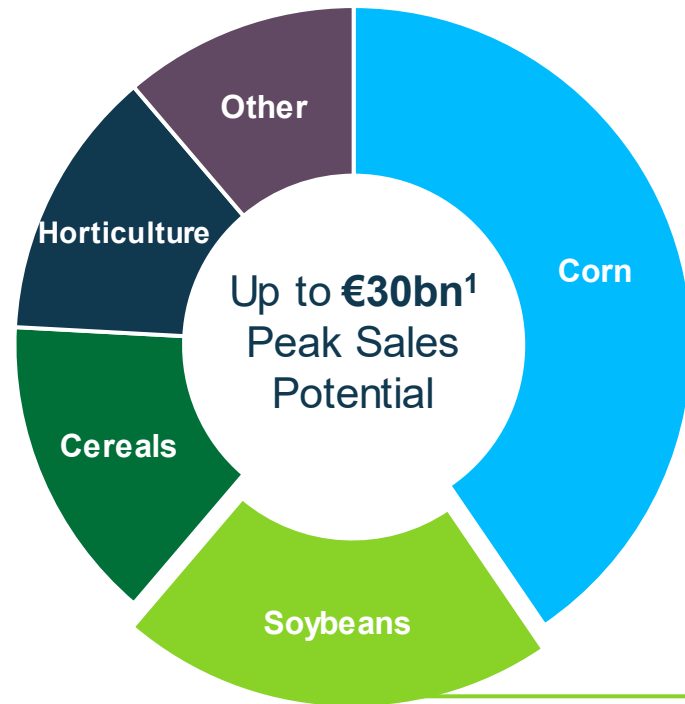


Next Gen. Weed Control Central to Pipeline of Solutions for NA Soy

Pipeline Potential Balanced Across Key Global Crops

Crop Science Pipeline Peak Sales Potential

Seed, Trait, Crop Protection and Digital Solutions by Crop Served



Global Soybeans²: ~€6bn Peak Sales Potential

Products Specific to the NA Market

- Annual Germplasm Upgrades
- 4th and 5th Generation Herbicide Tolerance Traits (HT4 & HT5)
- New Crop Protection Formulations
- New Mode of Action Herbicide (post-emergence broad acre)
- Digital Tools (e.g. Disease Management, Seed Placement, Weed Management)

¹ Represents non-risk adjusted estimated peak sales for the combined breeding, biotech, crop protection and environmental science pipelines, as well as new business models and new value areas. ~50% incremental sales value. Estimated to reach ~40% of peak sales potential by 2031, ~40% by 2032-2035 and ~20% by 2036+

² Projects listed per crop are subset of the pipeline; selected top contributors to peak sale potential



Three Generations of Soybean Herbicide Tolerance Traits

Technologies Provide Solutions to Address Farmers' Needs, Herbicide Resistance Challenges

3 herbicide tolerances



- Glyphosate
- Dicamba
- Glufosinate

LAUNCHED
in 2021 on ~16m
commercial acres



Enlist E3 Soybeans

XtendFlex Soybeans

June 29th, 2021 | Storm Lake, Iowa

5 herbicide tolerances

HT4 Fourth-Gen Phase 3

Expected 2027
launch

- Glyphosate
- Dicamba
- Glufosinate
- HPPD (Mesotrione)
- 2,4-D



Control

HT4 Soybeans

July 14th, 2021 | Jerseyville, Illinois

6 herbicide tolerances

HT5 Fifth-Gen Phase 2

- Glyphosate
- Dicamba
- Glufosinate
- HPPD (Mesotrione)
- 2,4-D
- PPO



Control

HT5 Soybeans

July 14th, 2021 | Jerseyville, Illinois

Always read and follow label instructions. Products not registered in all jurisdictions.



First New Herbicide MoA in Post Emergence Weed Control in 30 years

New Herbicide Molecule

Project is currently in Phase 3



- Potential to build on **#1 position** in global herbicides¹
- Allows use in various market segments, beyond traditional nonselective use
- Herbicide tolerance trait to be paired with this molecule currently in discovery

¹ Internal estimates



Expect HT4 Soybean Weed Management Tailored Solution by 2027

Industry-First Five Mode-of-Action Trait System with Proprietary Herbicides and Digital Prescription

Pre-Plant

Pre-Plant and Planting:

Seed Placement variety and digital weed management recommendation



HT4
Five-Tolerance Trait Stack
(glyphosate, dicamba, glufosinate, 2,4-D, HPPD [mesotrione])

In-Season

In-Season:

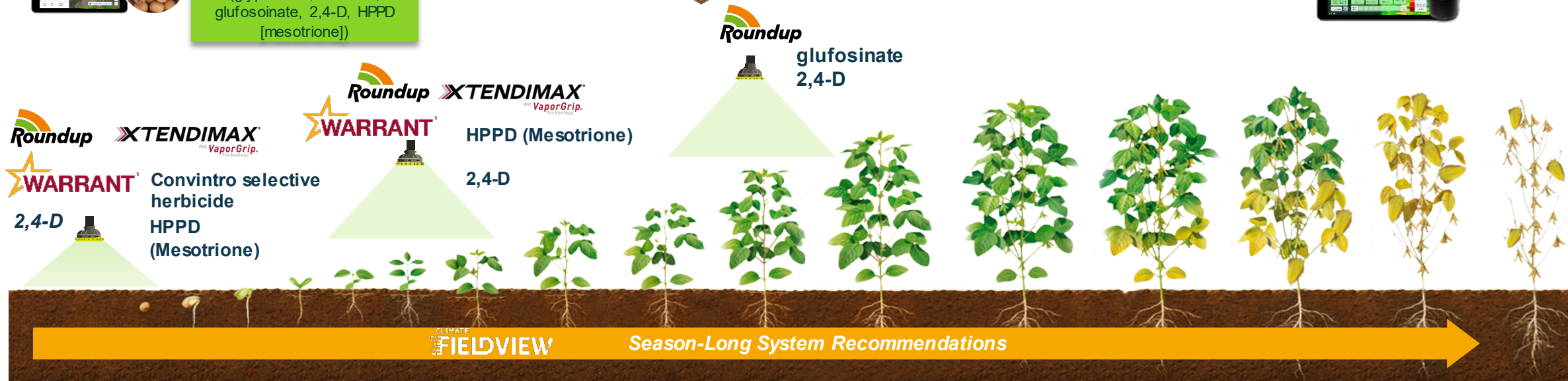
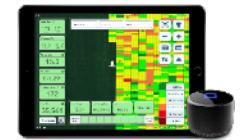
Field imagery and data to determine best prescriptive herbicide recommendation



Post-Harvest

Harvest/Post-Harvest:

Weed-Control performance



Burndown/Pre-emergence application options

Early post-emergence application options

Prescriptive post-emergence application options



The Next Frontier: Evolution to Digitally Enhanced System Solutions

Illustration: HT4 Soybean Weed Management System

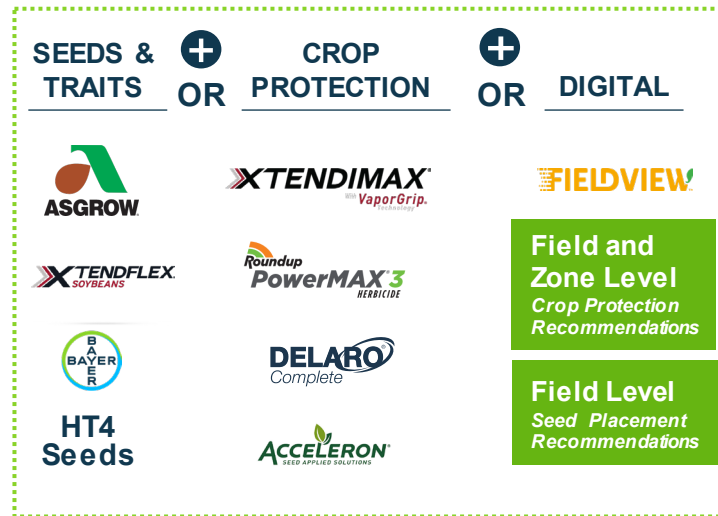


Win by being more grower centric

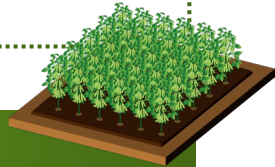
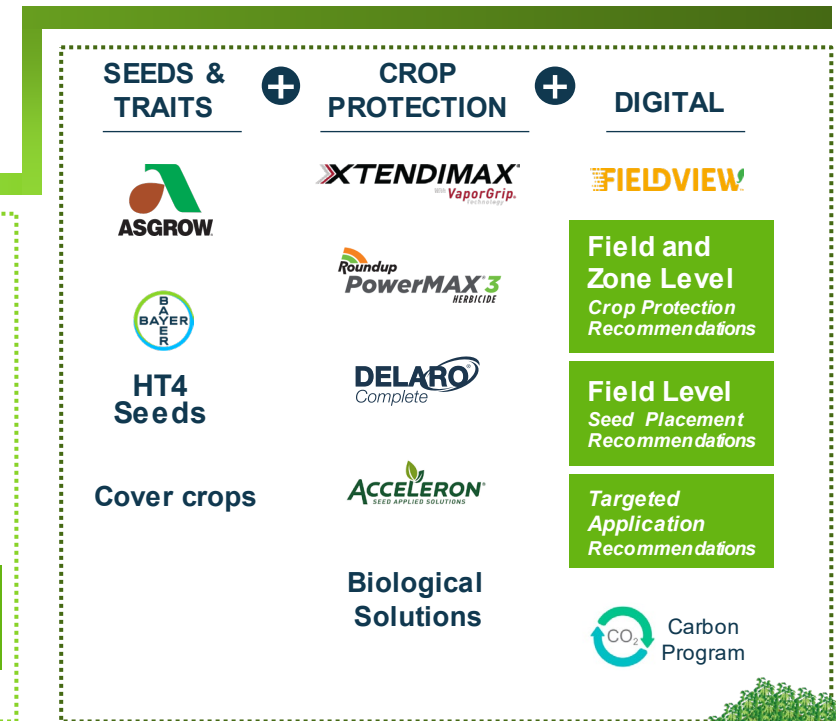
Discrete Solutions



Tailored Solutions



Crop System Solutions



Increased Value from Digital Enhancements to Grow Share of Farm
Inputs to Outcomes

2022

2030



Cotton

Scott Bollman, PhD

*Director of Science Implementation,
Digital Farming Solutions*

Jessica Christiansen

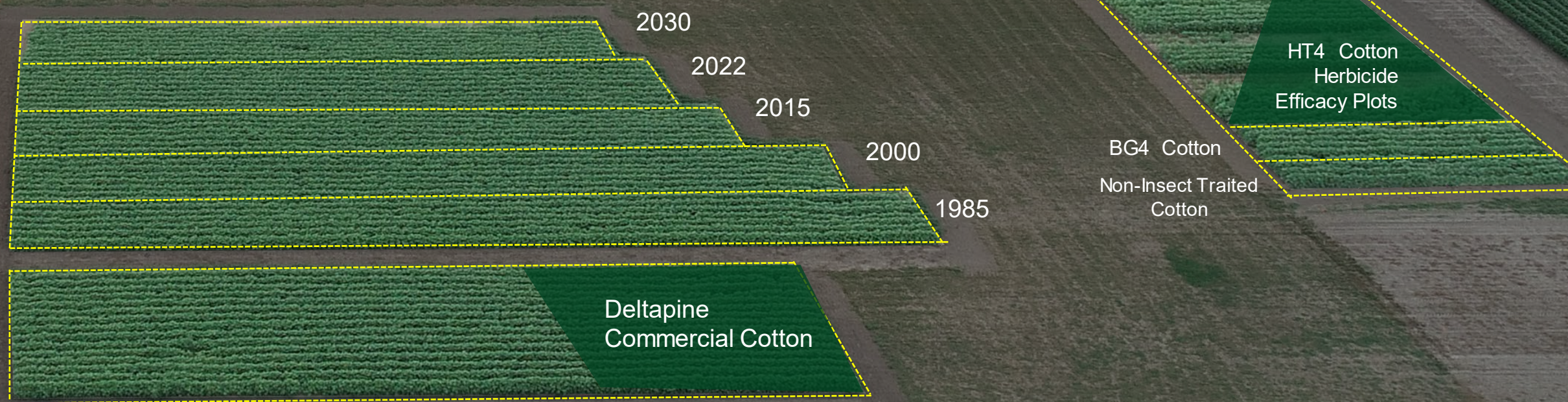
*Crop Science Head of Sustainability
and Crop Stewardship*

Fields of Opportunity

Cotton



// History of Cotton Demonstration
Amount of Land to Produce One 480 lb Bale of Lint



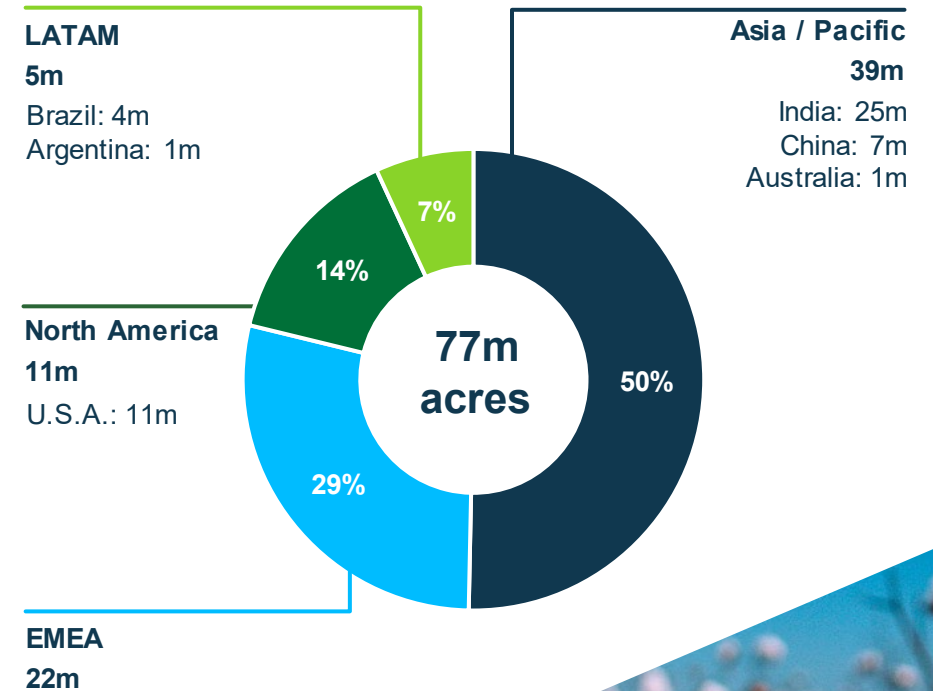


Globally Grown Crop with Wide Range of Industrial Uses

About Cotton

- // Total global cotton CP market: €2.3bn
- // Total global cotton Seed & Traits market: €1.5bn
- // Most widespread non-food crop
- // Wide range of industrial uses, particularly in textile industry
- // Traded in bales of raw cotton fibers
- // Yield expressed in pounds of lint per acre instead of bushels per acre (avg. in U.S. in 2021: 849 pounds)
- // Length and strength of lint key for industrial use

Major Cotton Growing Geographies (planted acres, 21/22)¹



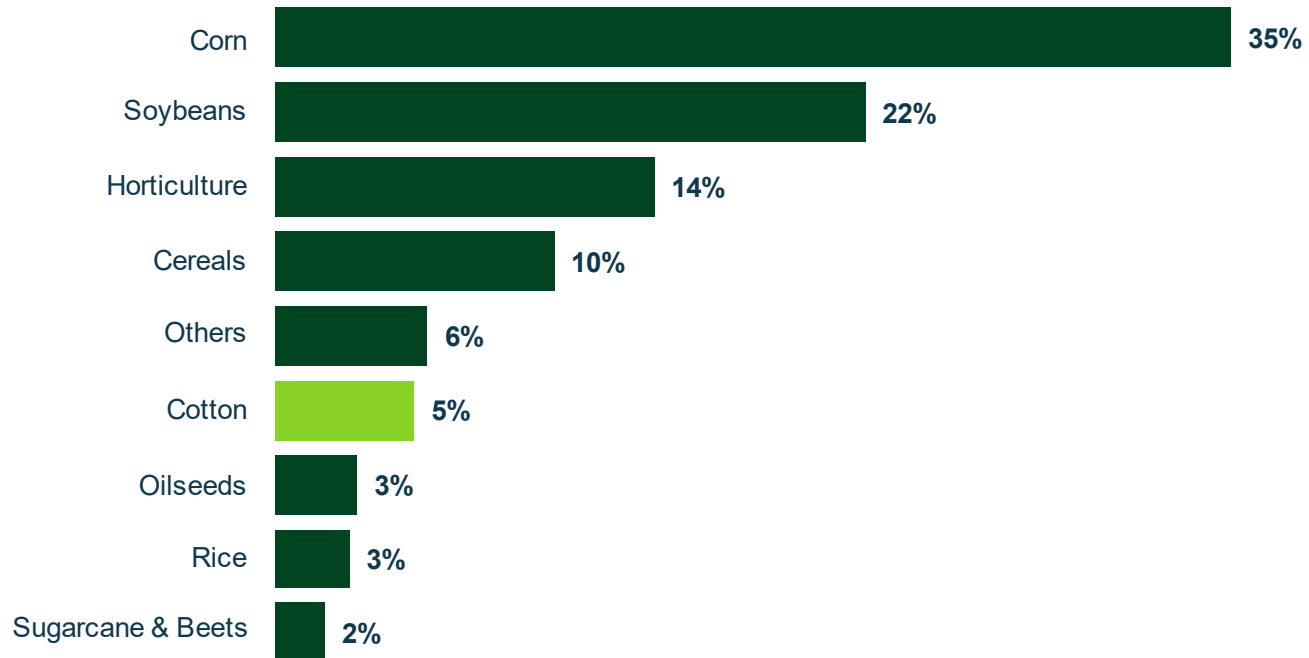
¹ Source: internal estimates, planted acres as of 2021



A Global Leader in Sustainable Cotton Production

Bayer Crop Science 2021 Sales¹

Sales by Crop Served



> Sales in Cotton: ~€1bn

¹ Source: Company estimates. Based on 2021 data, excluding Environmental Science sales. Crop protection sales allocated to crops where they are applied. "Others" includes digital farming solutions, non-commercial crops, and non-identified crops.



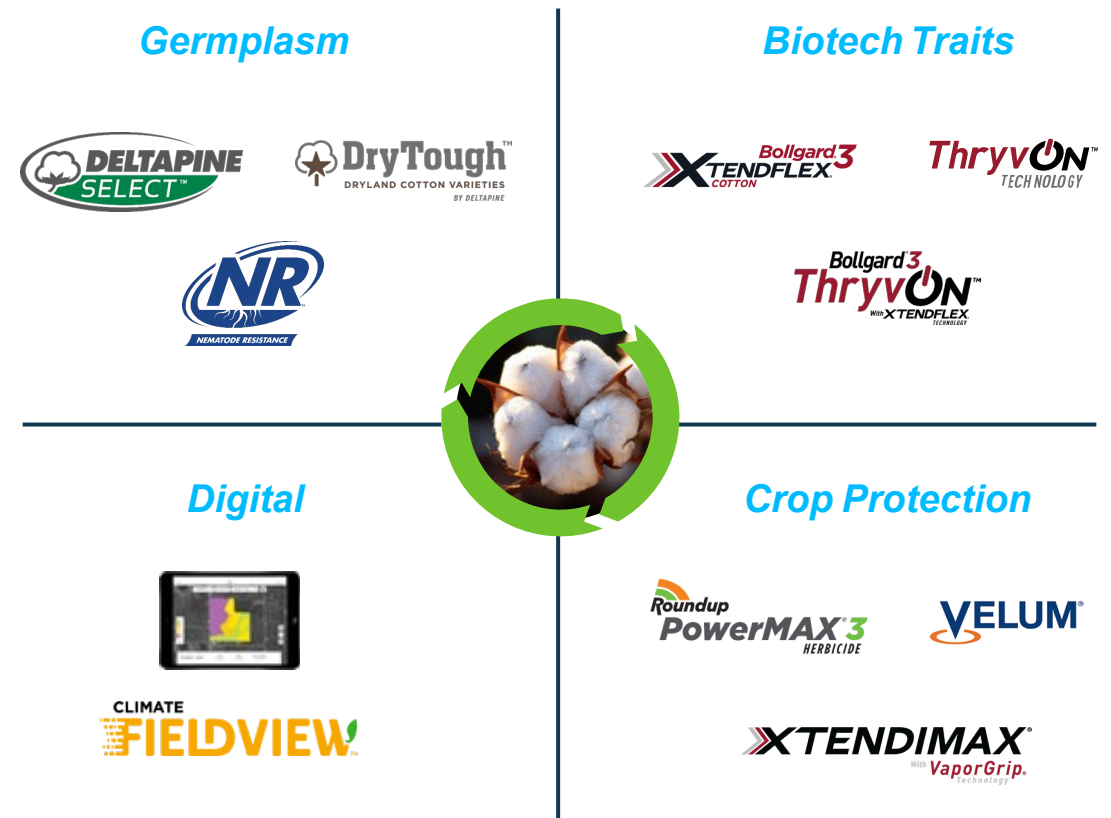
Bayer Offers the #1 Cotton Seed & Traits Platform in U.S., Australia

Growing Presence in Brazil; Unsurpassed Weed Control with Roundup Brand of Agricultural Herbicides

Bayer Global Cotton Footprint

- // Cotton Seed & Traits Sales in 2021: >€500m
- // Global leader in sustainable cotton production
- // #1 U.S. Germplasm share of ~65%
- // #1 U.S. Trait share of ~75%
- // Offer >25 varieties in the U.S.
- // Strong footprint in Australia (trait share of 100%) and Brazil (trait share of ~50%)

Bayer Global Cotton Portfolio¹



¹ Examples of key products in the Bayer portfolio; not a comprehensive representation



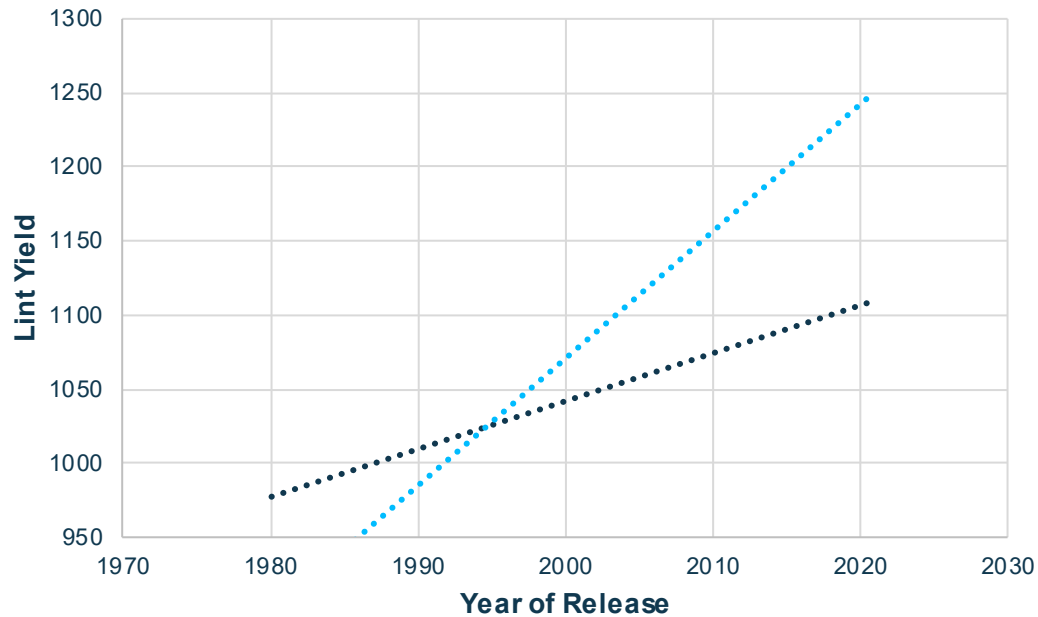
Bayer Innovation Led Transformation in the Cotton Industry

Yield Increases and Fiber Length Gains Driven by Genetic Improvements and New Trait Technologies; Allowed for a 16% Reduction in Land Required for Production in the U.S.

Genetic gain improved from 3.2 to 8.6 lb / year

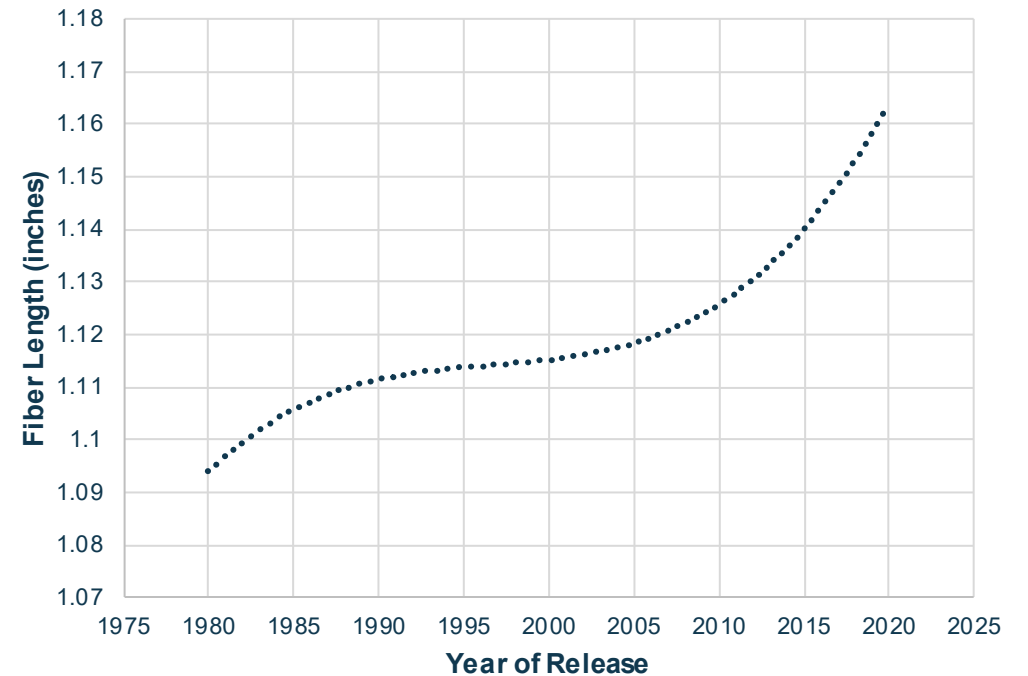
Continuous Fiber Length Improvements

Deltapine Long Term Yield Trend (without Dry-Tough)



..... Linear (Yield Trend Pre-Biotech Era) Linear (Yield Trend Biotech Era)

Deltapine Long-Term Fiber Length Trend



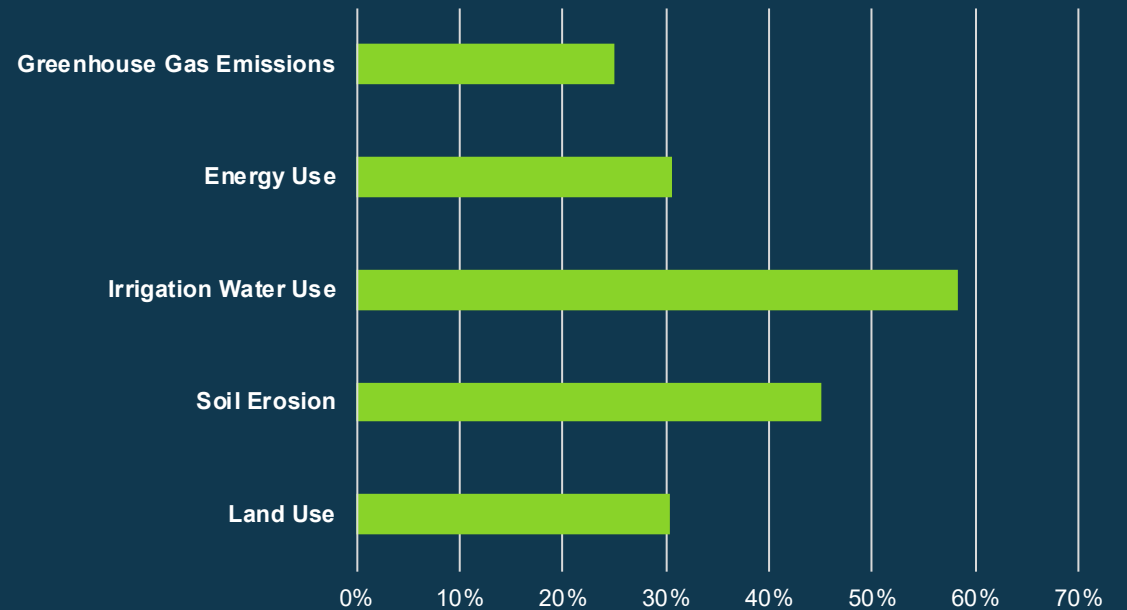


Key Contributor to Sustainable Cotton Production Advancements

- // Industry engagement, partnership with subject matter experts, close grower relationships and state-of-the art digital technologies enable sustainable production and strengthen our position as trusted partner.
- // Cotton industry is laser-focused on driving future sustainability improvements through initiatives like:



Sustainability Improvements in Cotton Industry¹
(2020 vs. 1980, in %)



¹ Source: Field to Market 2021 National Indicators Report

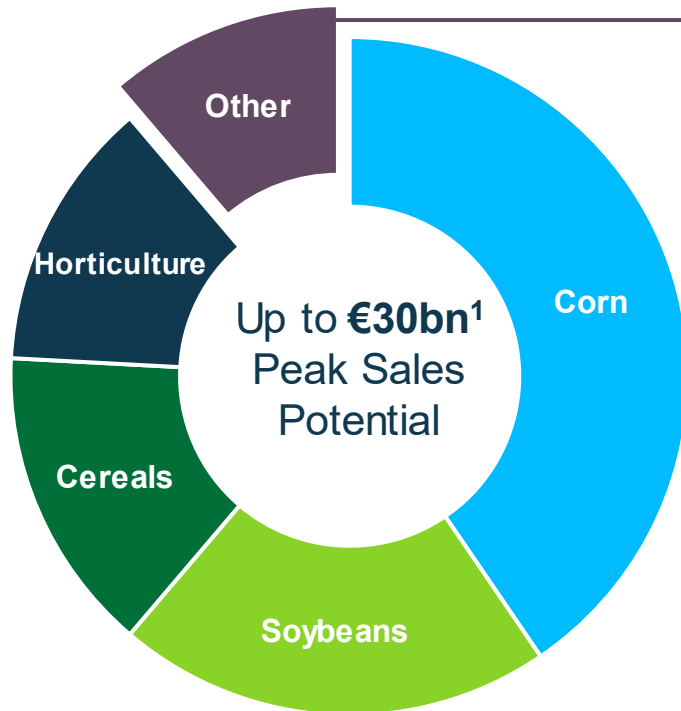


'Other' Pipeline Powered by Cotton, Digital and Carbon

Pipeline Potential Balanced Across Key Global Crops

Crop Science Pipeline Peak Sales Potential

Seed, Trait, Crop Protection and Digital Solutions by Crop Served



Other²: ~€4bn Peak Sales Potential

- Annual Germplasm Upgrades (e.g. Cotton and Canola)
- 4th Generation herbicide tolerance trait (HT4)
- Bollgard 4
- ThryvOn Technology (Lygus & Thrips Control)
- New Crop Protection Formulations
- Carbon
- Digital Tools (e.g. Orbia, Microsoft Collaboration)

¹ Represents non-risk adjusted estimated peak sales for the combined breeding, biotech, crop protection and environmental science pipelines, as well as new business models and new value areas. ~50% incremental sales value.

Estimated to reach ~40% of peak sales potential by 2031, ~40% by 2032-2035 and ~20% by 2036+


² Projects listed per crop are subset of the pipeline; selected top contributors to peak sales potential



Multiple Traits in Late-Stage Development for Cotton Farmers

Leading Innovation for Cotton Growers Driving Growth in >€500m¹ Cotton S&T Business

1st generation



First-ever biotech trait for piercing and sucking insect control

5 herbicide tolerances



- Glyphosate
- Dicamba
- Glufosinate
- HPPD
- PPO

4th generation



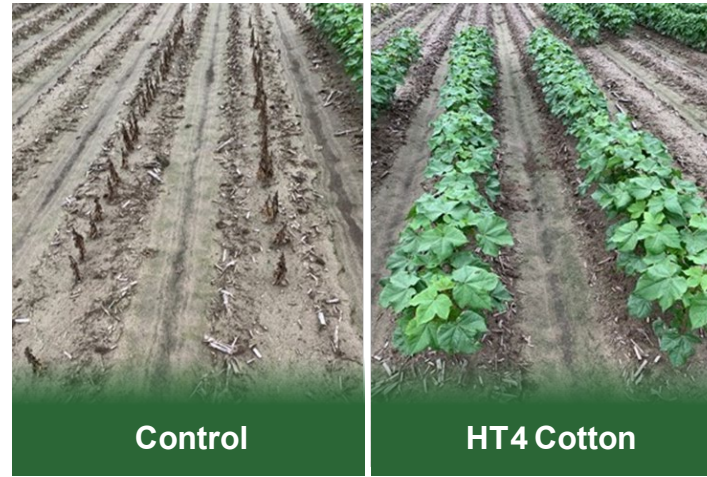
Season-long protection with multiple modes of action for key lepidopteran pests

Stewarded **Commercial Launch** in 2022 in the U.S.



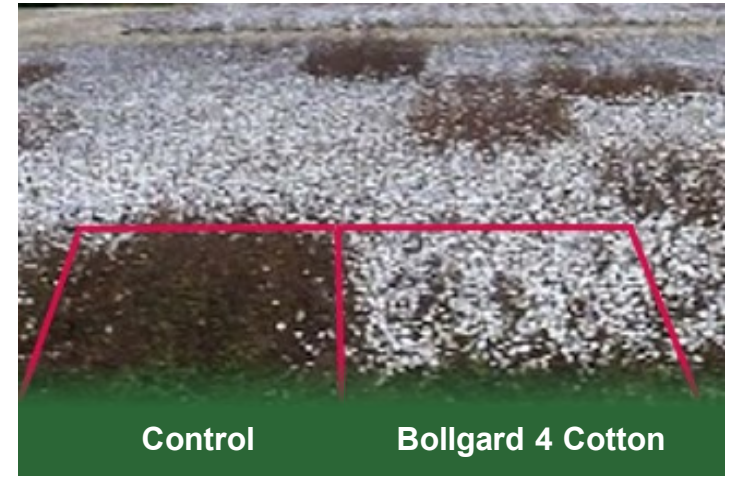
Scott, Mississippi, U.S. | Sep. 27, 2021

ADVANCED to Phase 3



2x 5-way tank mix at V3 stage in U.S. 2020 field trial in Scott, MS

ADVANCED to Phase 3



2019 Rocky Mount NCSU Results

¹ 2021 cotton seed & traits sales for Bayer Crop Science
ThryvON™ Technology has received full approval for planting in the United States but, as of the date this material was published, is pending approval in certain export markets. Specific plans for commercialization depend upon regulatory approvals and other factors.



Cereals



Frank Goehlich, PhD
Global Segment Manager
Cereal Fungicides

JD Rossouw, PhD
Head of Vegetables R&D

Fields of Opportunity

Wheat



Optimized Variety
Selection and
Planting Population

Herbicide Trials

Prosaro Pro
Fungicide Trials

Wheat System
Recommendation





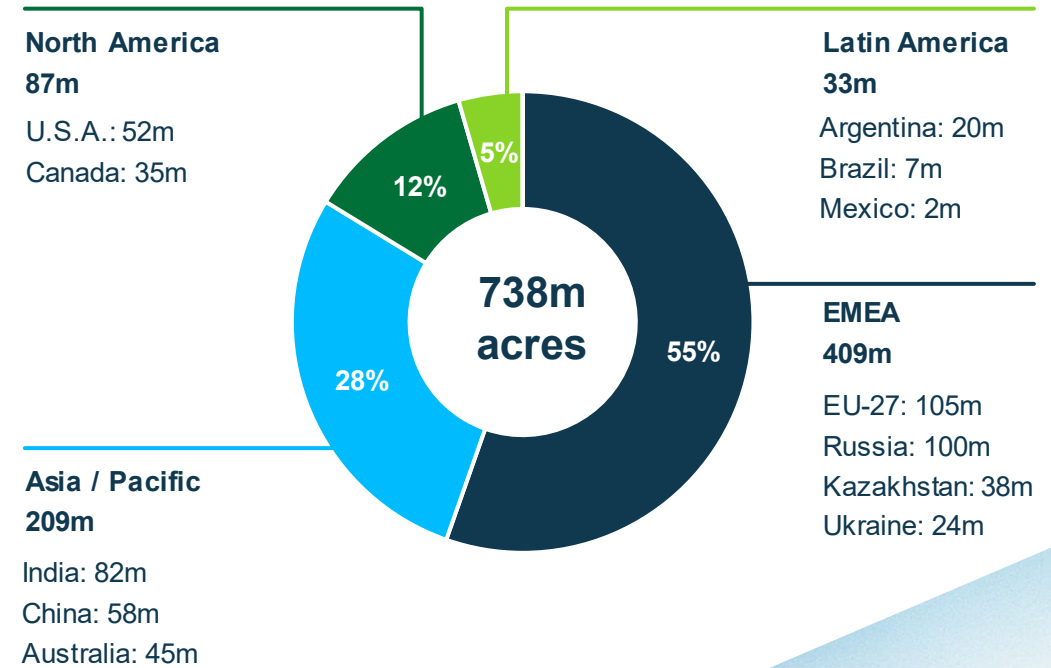
Cereals are Dietary Staples Vital for Food Security

Wheat Is the Largest Traded Crop on the Globe

About Cereals

- // Significant ag input market
 - // Total CP market globally: €8.4bn
 - // Total Seeds market globally: €4.1bn
- // Cereals include crops like Wheat, Barley, Rye, Oats and others
- // Wheat No. 1 crop in acreage (555m acres)
- // Wheat with central role for food security (providing 18% of total available calories)
- // Wheat with different cropping intensities and different average yields by geographic and climatic growing regions, ranging from an avg. of ~30 bu./acre in Australia to ~110 bu./acre in W. Europe²
- // Continued potential and need to drive value of crop (yield, intensity, seeds)

Major Cereals Growing Geographies (planted acres, 2021/2022)¹



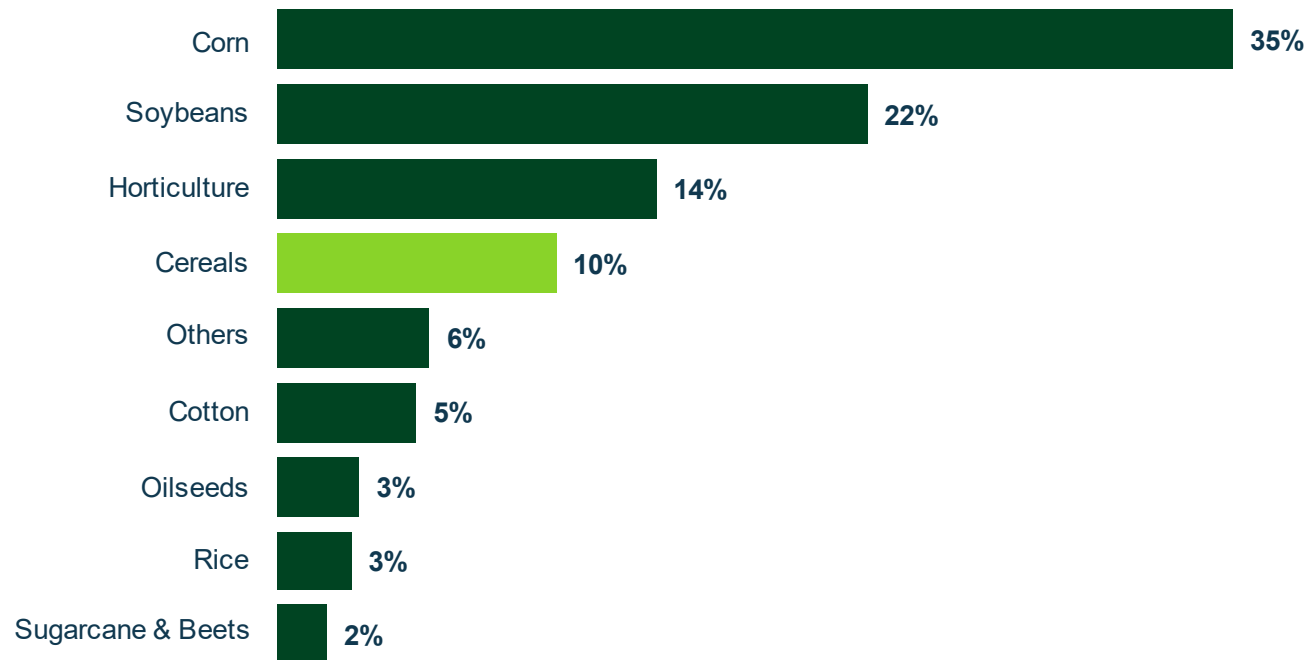
¹ Source: internal estimates, planted acres as of 2021; ² Source: IHS – 5y avg. 2016/17 – 2020/21, W. Europe defined as GER+FR+UK



Cereals Crop Protection Portfolio is an Important Contributor to Bayer Crop Science Sales

Bayer Crop Science 2021 Sales¹

Sales by Crop Served



> Sales in Cereals: ~€2bn

¹ Source: Company estimates. Based on 2021 data, excluding Environmental Science sales. Crop protection sales allocated to crops where they are applied. "Others" includes digital farming solutions, non-commercial crops, and non-identified crops.



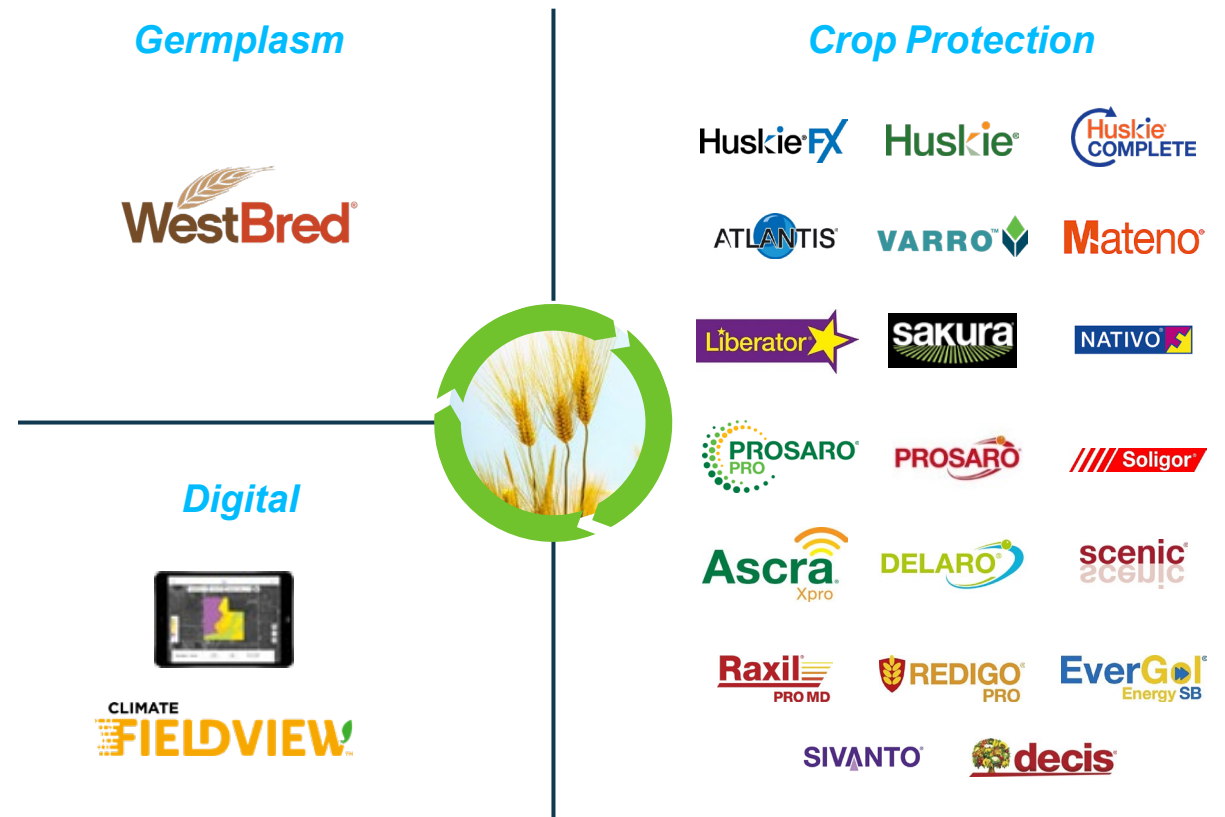
Market Leading Cereals Business in Crop Protection

Global Leader in Cereals Herbicides and Fungicides in All Key Growing Regions

Bayer Global Cereals Footprint

- // ~€2bn in global Bayer CP sales into cereals crops, mainly in herbicides and fungicides
- // ~€4bn PSP in cereals, mainly driven by continued LCM of our portfolio, as well as new active ingredients and innovations like hybrid wheat
- // Leading U.S. Germplasm share of ~20% for newly purchased wheat seed
- // Bayer driving sustainability in Cereals, with modern Crop Protection, higher-yielding and more efficient seed, digital tools for optimized utilization of inputs and lower carbon cropping systems

Bayer Global Cereals Portfolio¹



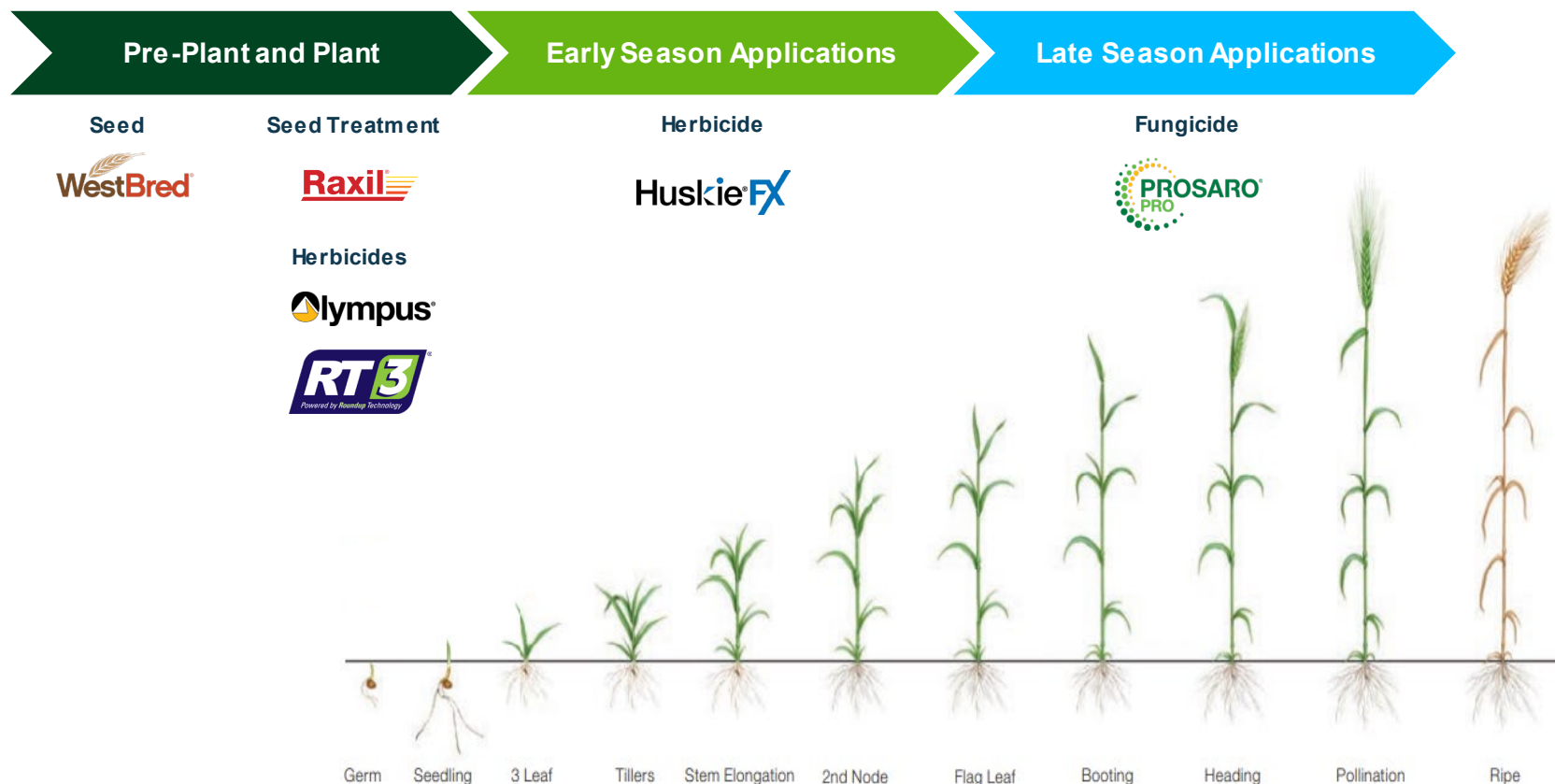
¹ Examples of key products in the Bayer portfolio; not a comprehensive representation; LCM = Life Cycle Management



Addressing Grower Needs with a Broad Wheat Portfolio

Example: Bayer's U.S. Wheat Portfolio

- **Westbred** genetics were planted on 46% of winning farms in National Wheat Yield Contest in 2021
- **FieldView** supports agronomic data and decision making
- **Raxil** seed treatment offers protection against broad spectrum of early-season seed and seedling diseases and pests
- **Huskie FX** Herbicide – innovation that effectively controls a wide spectrum of broadleaf weeds
- **Prosaro Pro** Fungicide – innovative Life Cycle Management, adding a second mode of action to our blockbuster Prosaro to promote plant health and high quality grain through management of key foliar and head diseases, including suppression of Ergot and control of fusarium head blight



Digital Powered by **CLIMATE FIELDVIEW**

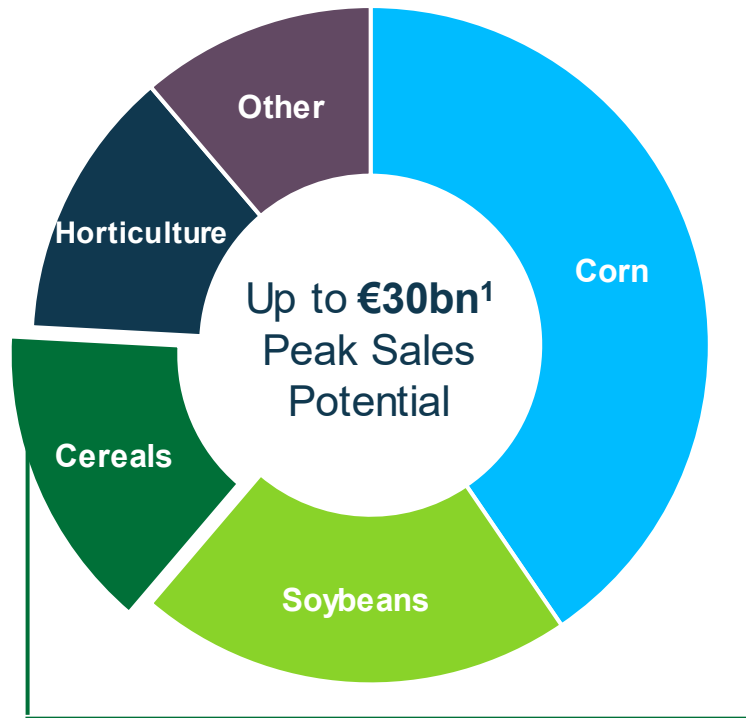


Fungicides and Hybrid Wheat Key Drivers in ~€4bn Cereals Pipeline

Pipeline Potential Balanced Across Key Global Crops

Crop Science Pipeline Peak Sales Potential

Seed, Trait, Crop Protection and Digital Solutions by Crop Served



Cereals²: ~€4bn Peak Sales Potential

- Annual Germplasm Upgrades
- Hybrid wheat
- iblon Fungicide
- New Crop Protection Formulations
- Digital tools (e.g. Wheat Digital Disease Management EMEA)

¹ Represents non-risk adjusted estimated peak sales for the combined breeding, biotech, crop protection and environmental science pipelines, as well as new business models and new value areas. ~50% incremental sales value. Estimated to reach ~40% of peak sales potential by 2031, ~40% by 2032=2035 and ~20% by 2036+

² Projects listed per crop are subset of the pipeline; selected top contributors to peak sale potential



Crop Protection: Driving Significant Future Growth Opportunity

Mateno
Complete

3 MoA

Pyroxasulfone
Diflufenican
Aclonifen **NEW**

- Mateno Complete includes Aclonifen, a new herbicide mode of action for Australia
- Suitable for use in wheat and barley for hard-to-control grass and broadleaf weeds

PSP of >€50m
Launched in Australia in 2022



Untreated Control



Mateno Complete

iblon
TECHNOLOGY

- **iblon** offers the **most reliable control** of relevant leaf diseases in cereals
- iblon will be positioned in the premium segment

PSP of ~€350m
Commercialization has begun in New Zealand, major geographies to follow in the years ahead



Untreated



iblon



Hybrid Wheat: New Production System for the World's Largest Crop

Potential to Shape Transformation of Wheat Production by End of the Decade

Hybrid Wheat

- // Hybrid wheat expected to provide **higher yield** and **yield stability**, with potential fit on a significant portion of the **~555m acres of wheat** grown globally
- // Envision a **more sustainable and resilient system** with better nitrogen use efficiency, disease, drought and heat tolerance
- // Advancements in **genomic tools** and the **cytoplasmic male sterility system** are enabling the development of hybrid wheat at competitive cost
- // 'Blue ocean' market potential to drive value of market for Wheat seed and technologies, which has already happened in crops like corn



Winter Hybrid
Maize, Kansas | 2021



Spring Hybrid
Sabin, Minnesota | 2021

Our Approach to Hybrid Wheat

Different climatic zones in key regions Europe and North America require **distinct approaches**:

Europe

- // In 2021, we launched a **strategic R&D partnership with RAGT**, the European market leader in varietal wheat, leveraging strong complementarity of partners:
 - // RAGT: Best-in-class germplasm and rich portfolio of native traits
 - // Bayer: Wide array of R&D assets, seed production know-how; leader in CP

US

- // Hybrid wheat program based on our leading U.S. WestBred germplasm position



Our Vision:

A digitally enabled sustainable hybrid wheat system offering



Soybeans

Latin America

Luis Offa

Head of Marketing, LATAM

Marcio Santos

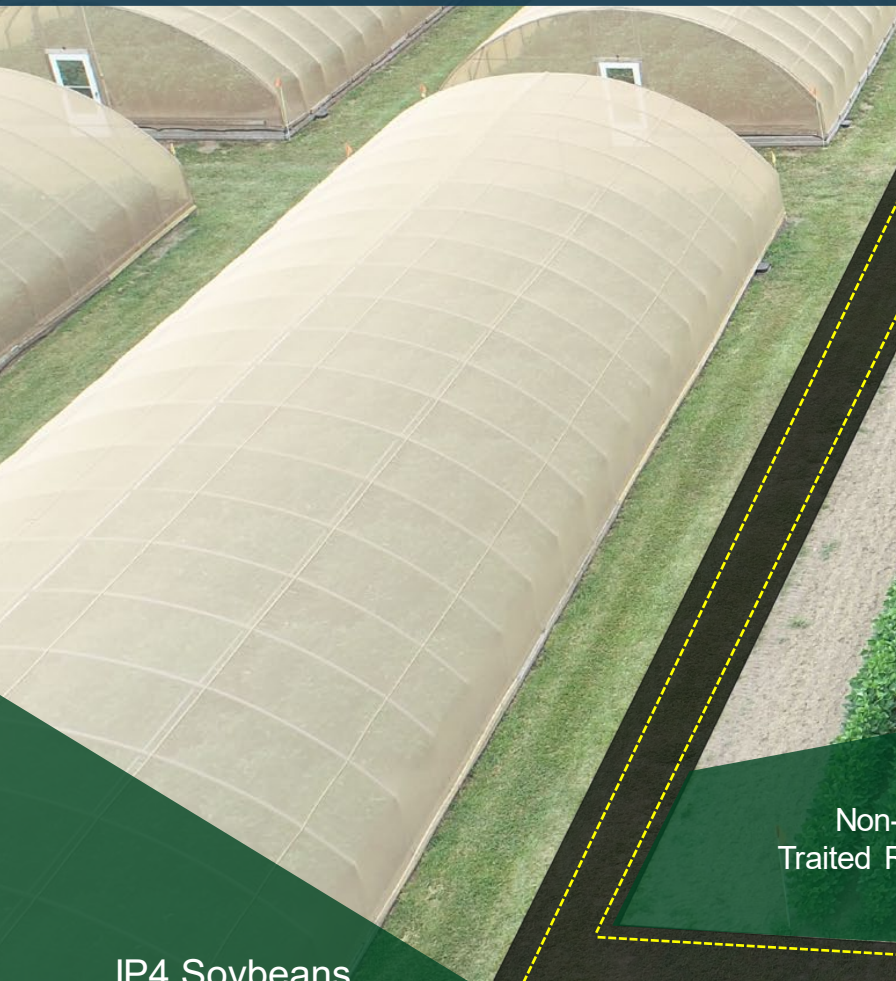
Brazil Sales Lead

Santiago Schiappacasse

South America Soybean Strategy Lead

Fields of Opportunity

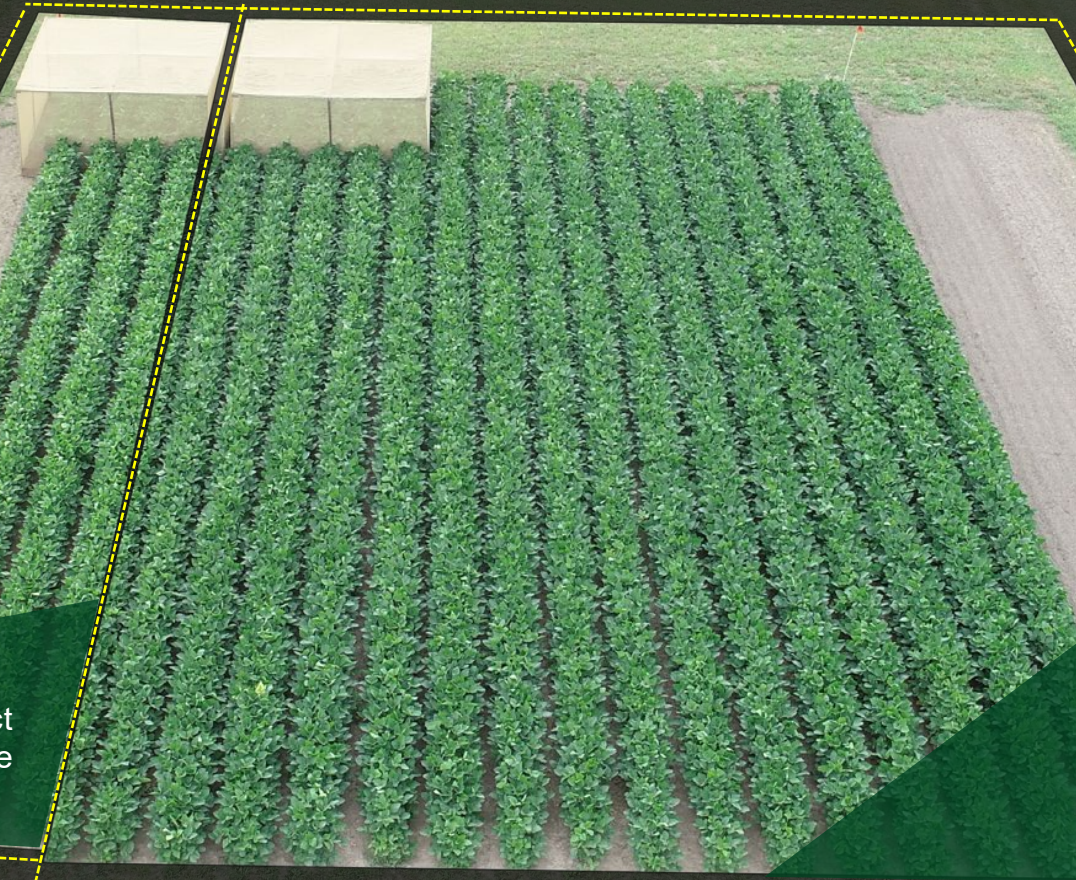
LATAM Soybeans



IP4 Soybeans



Non-Insect
Treated Refuge



Intacta 2 Xtend



IP3 Soybeans

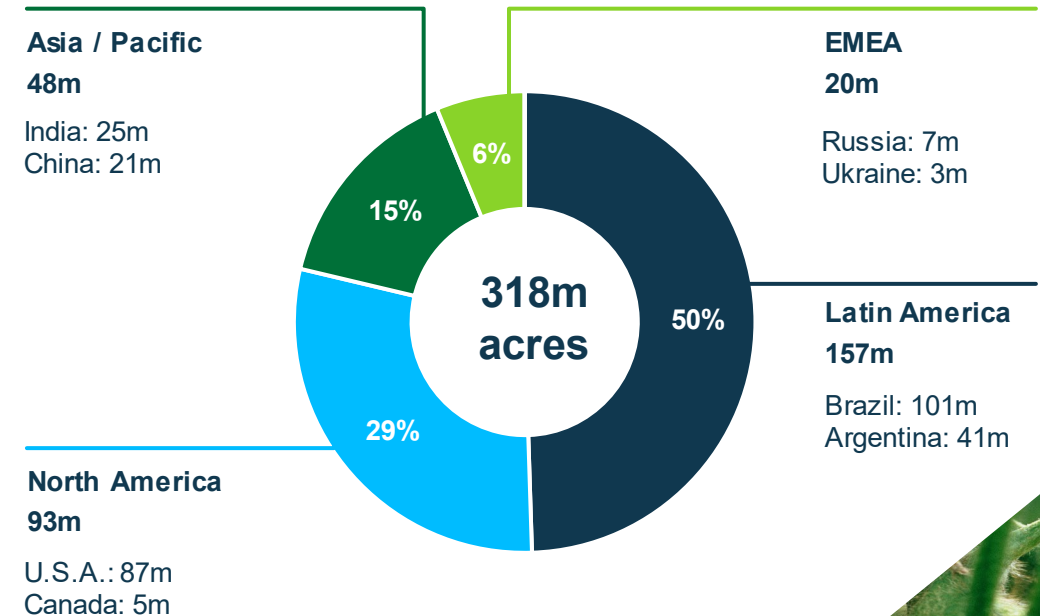


The Americas Lead the World in Soybean Production

About Soybeans

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- // Total **Seed & Traits market** globally: **€5.9bn**
- // Soybeans have a wide range of uses; **meal** is primarily used as a **high protein livestock feed**, and soybean **oil in food and industrial uses** like biodiesel
- // Continually evolving **weed resistance** drives need for innovation in **North America**, while management of **insect resistance** is key in tropical **Brazil**
- // Evolving **fungal diseases** can also be devastating to yields in **Brazil**; requiring state-of-the art fungicides to manage

Major Soybean Growing Geographies (planted acres, 21/22)¹



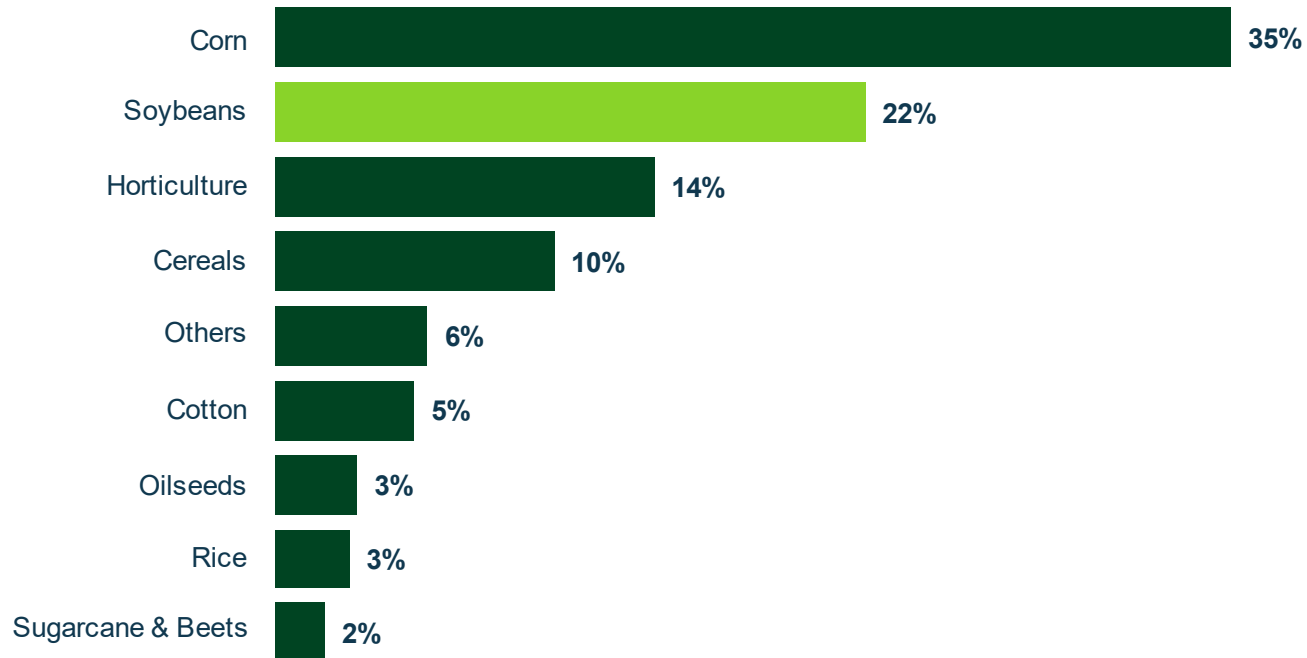
¹ Source: internal estimates, planted acres as of 2021



#1 Global Soybean Trait Platform Complemented by the Leading Soybean Fungicide Franchise in LATAM

Bayer Crop Science 2021 Sales¹

Sales by Crop Served



> Sales in Soybeans: ~€4bn

¹ Source: Company estimates. Based on 2021 data, excluding Environmental Science sales. Crop protection sales allocated to crops where they are applied. "Others" includes digital farming solutions, non-commercial crops, and non-identified crops.

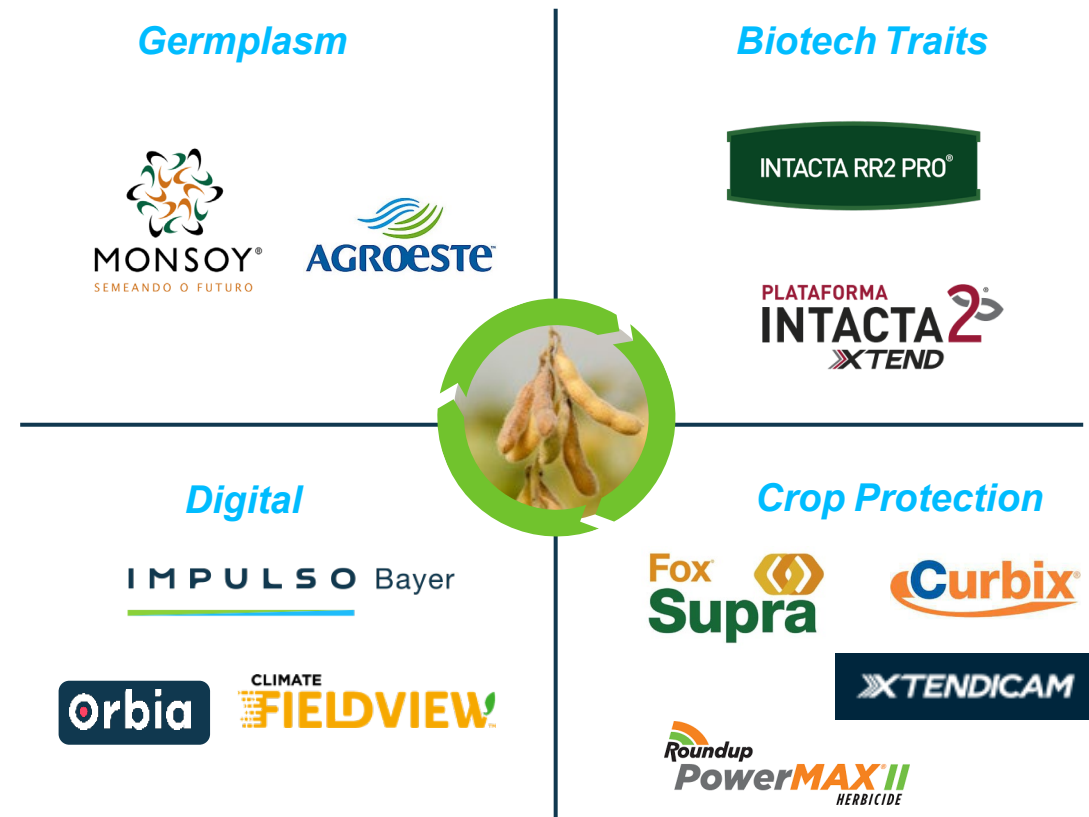


Latin America's Leader in Soy Seed & Traits and Crop Protection

Bayer LATAM Soybean Footprint

- // #1 Brazil soybean trait share of >80%; just launched Intacta 2Xtend soybeans in 2021/22 season and expect >6m acres in upcoming 2022/23 season
- // Intacta 2 Xtend delivered a performance advantage of **2.89 bu/acre**
- // Crop Protection share of market in Brazil of ~20%; #1 in soybean fungicides with Fox family of products
- // Partner in largest digital Ag marketplace in Brazil; Orbia

Bayer LATAM Soybean Portfolio¹



¹ Examples of key products in the Bayer portfolio; not a comprehensive representation

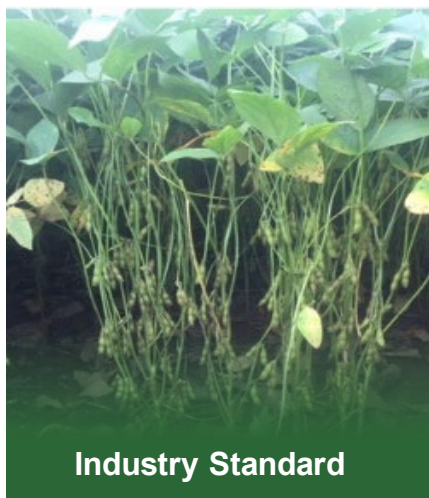


Fungicides: New Innovations Drive our Growth Potential in Brazil

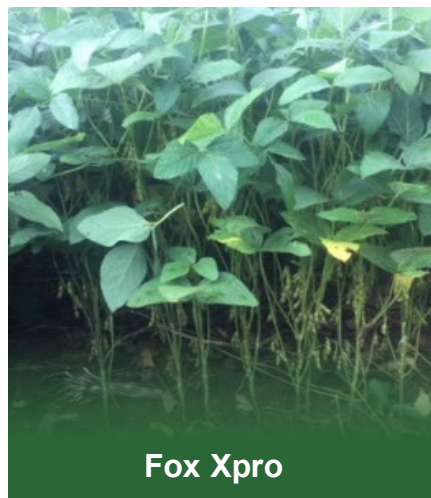
Expect ~€1bn¹ of Peak Sales Potential from Fox Portfolio of Fungicides



- **Fox Xpro** fungicide **offers excellent control** of all relevant soybean diseases including **Asian Soybean Rust**
- **#1** market position; **>25% market share²** in soybean fungicides segment last season (*3rd year after launch*)



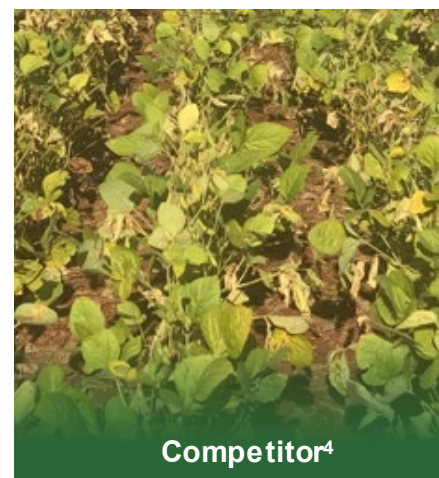
Industry Standard



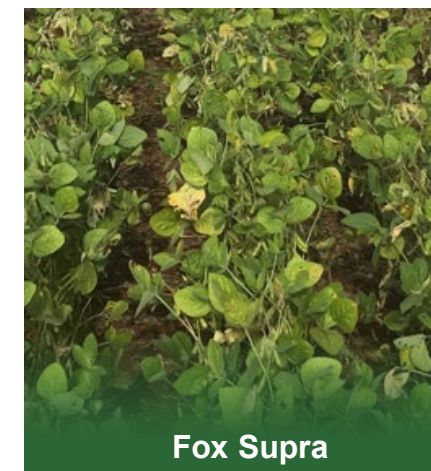
Fox Xpro



- Adds an additional mode of action with next-gen technology **Indiflin^{®3}** to **Fox Xpro**
- **Pre-Launch** in 2022; **full scale launch** in 2023



Competitor⁴



Fox Supra

¹ Internal estimates; ² BIP, Spark, 21/22; ³ In collaboration with Sumitomo; ⁴ BASF Orkestra Ultra

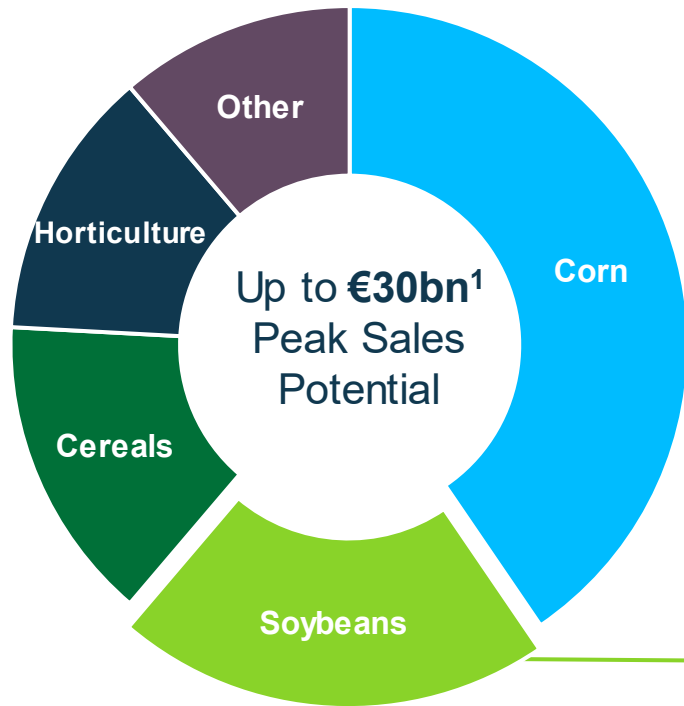


Next-Gen Insect and Disease Control Critical for LATAM Soybeans

Pipeline Potential Balanced Across Key Global Crops

Crop Science Pipeline Peak Sales Potential

Seed, Trait, Crop Protection and Digital Solutions by Crop Served



Global Soybeans²: ~€6bn Peak Sales Potential

Products Specific to the LATAM Market

- Annual Germplasm Upgrades
- 3rd and 4th Generation Insect Protection Traits (IP3 & IP4)
- 4th and 5th Generation Herbicide Tolerance Traits (HT4 & HT5)
- New Crop Protection Formulations
- Fox Supra Fungicide
- Plenexos Insecticide
- New MoA Herbicide (post-emergence broad acre)
- Digital Tools (e.g. Disease Management)

¹ Represents non-risk adjusted estimated peak sales for the combined breeding, biotech, crop protection and environmental science pipelines, as well as new business models and new value areas. ~50% incremental sales value. Estimated to reach ~40% of peak sales potential by 2031, ~40% by 2032-2035 and ~20% by 2036+

² Projects listed per crop are subset of the pipeline; selected top contributors to peak sales potential



Next-Gen Intacta Traits to Sustain Leading Franchise in Brazil

Intacta 2 Xtend Launched; IP3 Currently in Phase 3, IP4 Advanced to Phase 1



INTACTA RR2 PRO®

#1 South America soybean system¹

- Excellent control of soybean loopers, velvetbean caterpillar and axil borer
- Glyphosate tolerance provides proven weed control and enables conservation tillage
- Licensed to seed producers with >90% share of market in Brazil
- On >85m acres in South America in 2020/21



- Industry-first with three proteins for insect control and resistance management, plus adds dicamba tolerance for tough-to-control weeds
- **LAUNCHED** on **>800k** acres in Brazil in 2021/22 season. Targeting more than **6m** acres for the 2022/23 season.
- Performance advantage of **2.89 bu/acre**



Control IP3
Velvetbean Caterpillar Infested



Control IP3
Soybean Looper Infested

- **IP3 in Phase 3**; delivering multiple modes-of-action for insect control



IP4
Boone, Iowa, June 2021

- **IP4 ADVANCED** to Phase 1; focused on Brazil

IP3 = 3rd generation insect protection trait in soybeans

IP4 = 4th generation insect protection trait in soybeans

¹ Data based on number of traited acres per Bayer internal estimates



Connecting Our People, FieldView and Our Core Business Products

Creating the Digital Mindset to Enable New Value for Growers and New Business Models

DEKALB Corn

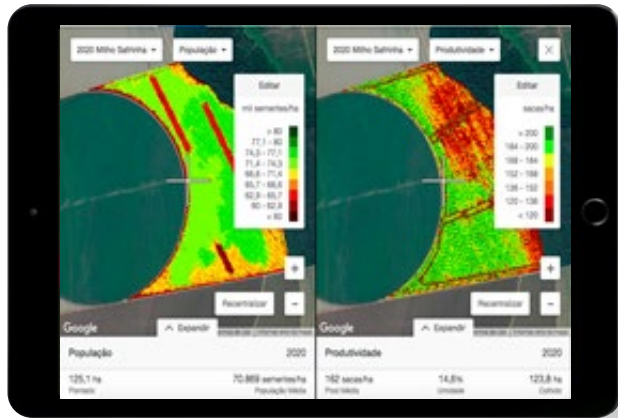
Selecting the best hybrids and planting at the optimal density

Verango Crop Protection

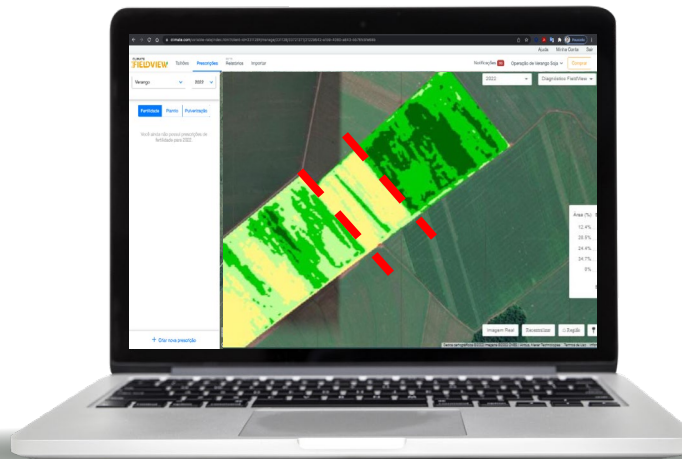
Showcasing nematode presence; demonstrating results

Intacta RR2PRO Soybeans

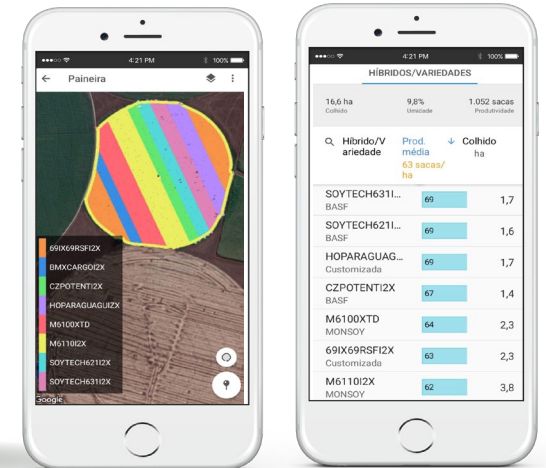
Planting test strips to select the best varieties



Example: Planting with the right density on every acre to optimize yield



Example: Application map for nematode treatment with Verango



Example: Nine soybean varieties yield test results demonstrating technology performance



Advancing New Solutions and Possibilities Through Digital

Reason to Believe: Optimistic Results in LATAM through New Business Model Pilots



+10% Incremental sales potential**



+5% Average productivity increase



+300 Customers vs. previous pilots



40 Net Promoter Score*



+95% Intent to Renew for Next Pilot

* Among interviewed customers[BR] **Safrinha 20/21



ORBIA: Largest Digital Ag-Marketplace in LATAM with Largest Loyalty Program

Orbia

- JV between Bayer, Bravium, Yara and Itau; Bayer with ~60% stake
 - Connects growers, input providers and grain traders to a network to expand their reach, secure financing, redeem rewards **from Bayer's Impulso loyalty program**, purchase and sell inputs
-
- Established in 2019 in **Brazil**, later expanded to Argentina, Colombia and Mexico
 - **~300 distributors** with inputs such as pesticides, seeds and fertilizers
 - **>200,000** registered growers
 - Covers **~75% of planted area**

IMPULSO

Bayer Loyalty Program

Points Earned Redeemable for Products and Services in Orbia:

+ 600



services available

+ 3000

Products
in benefit catalogue



VIP customers also eligible to participate in exclusive Ag events





Digital Unlocks Scalable Climate-Smart Business Models

Carbon Markets Valued at >\$200bn/year¹ and Growing with Consumers' Demand for Sustainability

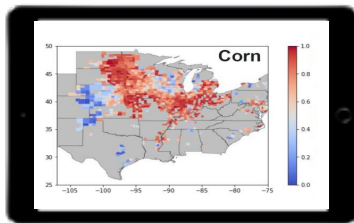
FIELDVIEW has the potential to streamline the way carbon is measured, verified and reported, to enable scalable, climate-smart business models

Quantification



CO₂e Total

Verification & Reporting



Crop Rotation by Field

Carbon Initiative

~2,600 participating farmers

10 countries covered

~1.5m acres globally

- Long-term program to provide **annual incentives** to Climate FieldView enrolled growers for verified and validated **climate-smart practices** like no-till and cover cropping
- Ranked **#1** in the U.S., scoring very high in terms of **grower trust**²

Enables 3 Expected Downstream Revenue Opportunities

Carbon Services

Product sales

Carbon assets

Project Carbonview for the U.S., a collaboration with **Bushel, The Andersons**, and built on **Amazon Web Services** cloud infrastructure, expected to track carbon emissions across ethanol chain

CHS Inc., largest Ag Coop in the U.S., agreed to be our **carbon program provider**, providing advice to growers moving to sustainable practices.

¹ Source: <https://www.reuters.com/article/us-carbontrading-turnover/global-carbon-trading-turnover-at-record-214-billion-last-year-research-idUSKBN1ZN1RN>; ² Forward Group Research Carbon Credit Program Perceptions & Evaluation, July 2021

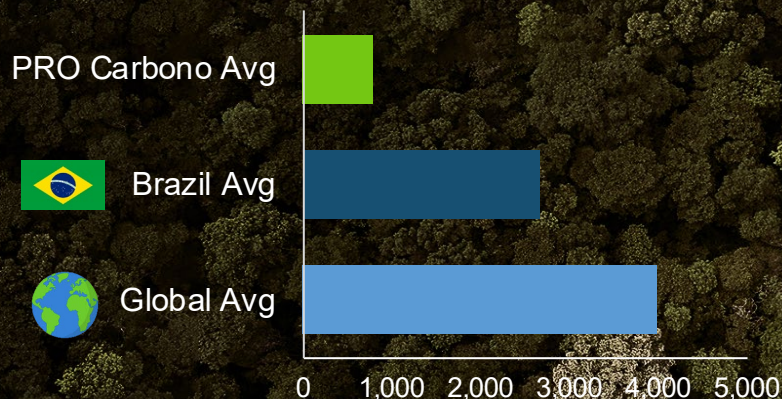


Bayer PRO Carbono: Largest Carbon Program in Brazil

PRO Carbono

- Be a change agent to create a carbon neutral industry
- Increase productivity and profitability from intensification of practices to sequester carbon
- Measure and track with **FIELDVIEW**

KG CARBON EQ PER MT OF SOYBEAN PRODUCED¹



Carbon Emissions of Soybean Growers in Bayer's PRO Carbono 70% lower than Brazil Average

DEVELOP AND IMPLEMENT MODELS TO CALCULATE SOC STOCK AND FOOTPRINT FOR TROPICAL AGRICULTURE



EXPERTS **CARBON**

3 SOIL CARBON METHODOLOGIES

~300k SOIL ANALYSES

10 Institutions

32 Researchers



¹ Assumptions and challenges of carbon footprint accounting in agriculture - Marcelo Morandi and Marília Folegatti - Embrapa Meio Ambiente; SOC = Soil Organic Carbon



The Next Frontier: Evolution to Digitally Enhanced System Solutions

Illustration: Intacta 2Xtend Soybean System



Win by being more grower centric

Discrete Solutions

SEEDS & TRAITS	CROP PROTECTION	DIGITAL
 	 	 Performance Transparency Yield Analysis

Tailored Solutions

SEEDS & TRAITS	OR	CROP PROTECTION	OR	DIGITAL
 		 		 Field and Zone Level Crop Protection Recommendations Field Level Seed Placement Recommendation

Crop System Solutions

SEEDS & TRAITS	+	CROP PROTECTION	+	DIGITAL
 IP3/HT4 Traited Soybeans Cover crops		 Biological Solutions		 Field and Zone Level Crop Protection Recommendations Field Level Seed Placement Recommendation Targeted Application Recommendations

Increased Value from Digital Enhancements to Grow Share of Farm
Inputs to Outcomes

2022

2030



Crop Science Field
Technology Showcase

Fields of Opportunity



August 11, 2022

Customer Bios





Convergence of Technologies on Farm Optimizes Performance

LATAM Customer Experience: Cristian Dalben



Cristian Dalben
Sorriso, Brazil

> Win by being more grower centric

- // **Total area (ha) - 2021:** 2,100 soy / 2,000 corn
- // **Intacta RR2 Pro:** 80%
- // **Bayer Corn seeds:** 100%
- // **Bayer Crop Protection:** 55%

2015-16

FieldView Adopter

2019-20

Loyal Bayer Customer (IMPULSO & ORBIA)

2019-20

Outcome-Based Pricing Pilot Participant

2020-21

Carbon Ambassador

After using FieldView and participating in Outcome-Based pricing trials, Cristian increased his share of Bayer products on farm significantly:

*33% Bayer Corn seeds to 100%
16% Bayer Crop Protection to 55%*



Leading Grower Perspectives – U.S.

Crop Science Field Technology Showcase

// **Bowen Flowers – Clarksdale, MS**

// ~10,000 acres of cotton, ~5,000 acres of soybeans and 1,000 acres of corn

// **Scott Rahn – Bingham Lake, MN**

// ~4,000 acres of corn and 3,000 acres of soybeans

// Bayer contract soybean seed producer

// **Kassi Tom-Rowland – Tom Farms – Leesburg, IN**

// 18,000 acres of corn, soybeans

// Bayer contract corn seed producer