



# Science for a Better Life

# **BMO Farm to Market Conference**

May 14, 2020 Liam Condon, President of the Crop Science Division





#### Forward-Looking Statements

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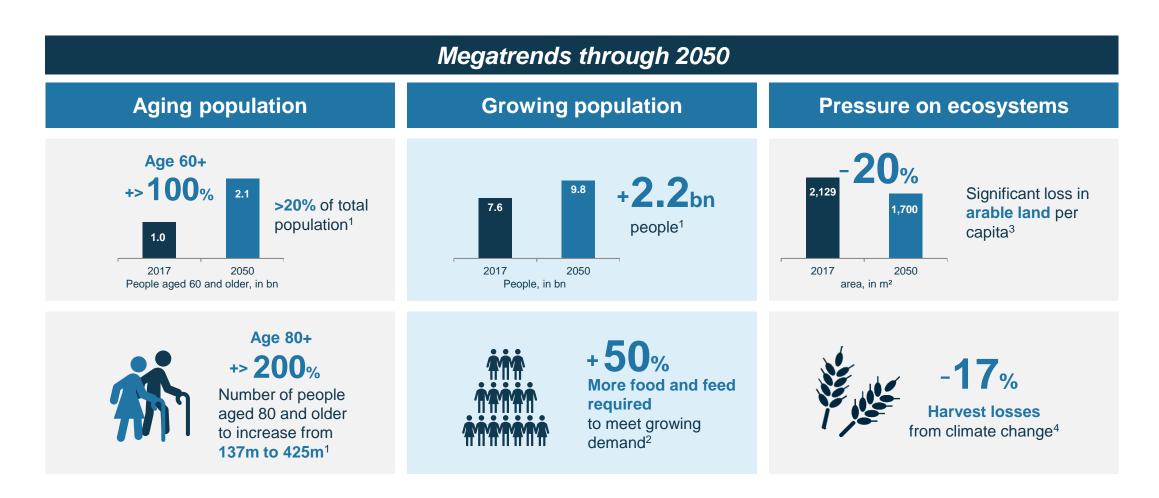
# Agenda

# **Bayer Group Overview**

**Vision and Strategic Pillars for Crop Science** 



# We address megatrends that impact lives across the globe



<sup>&</sup>lt;sup>1</sup> World Population Prospects: The 2017 Revision | <sup>2</sup> FAO 2017, (FAO Global Perspective Studies) | <sup>3</sup> FAOSTAT (accessed Oct 30, 2018) for 1961-2016 data on land, FAO 2012 for 2030 and 2050 data on land, and UNDEDA 2017: World Population Prospects for world population data | <sup>4</sup> Nelson et. al, (2014); FAO 2016 "Climate change and food security"



#### This is the hour of science; health and nutrition are essential

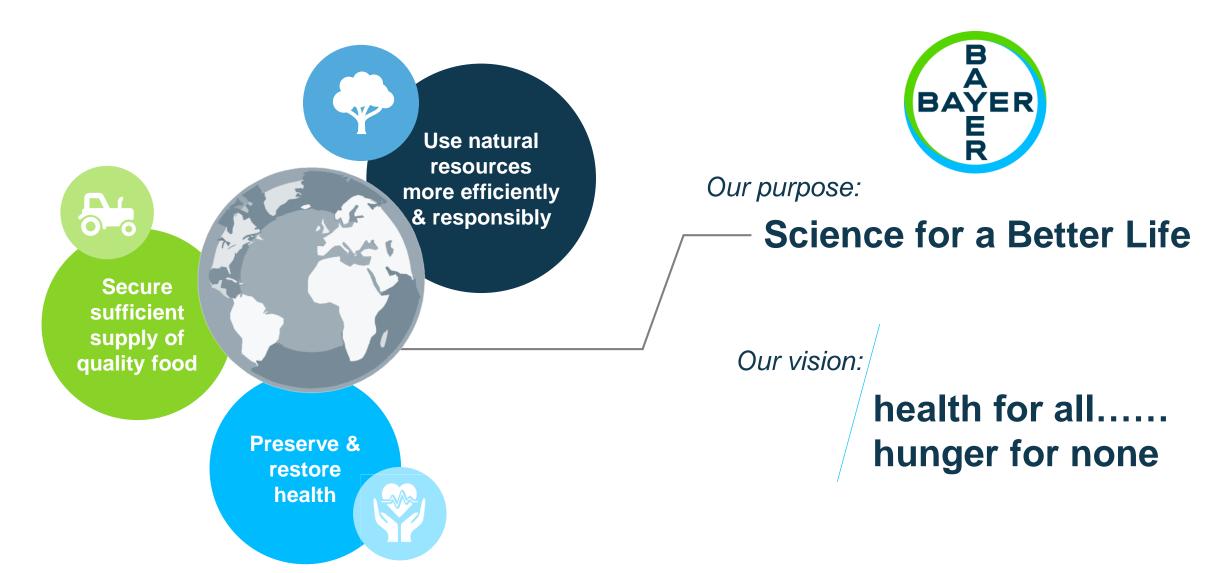


# As the globe addresses the COVID-19 pandemic, the basic supply of health and nutrition has never been more relevant and the role of science in providing solutions, never more pressing





#### We are a global leader in health and nutrition





#### We are well positioned in attractive markets



4 Source: CH Market - MAT Dec. 2019



# Innovation, sustainability and operational excellence intersect to drive value creation

What We Do

Through our leading positions in Health & Nutrition we create value for our shareholders and society

Our Value Levers
Are Designed to
Deliver Attractive
Returns







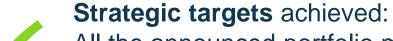




#### In 2019 we delivered on our commitments



Operational targets achieved: Sales and earnings increased



All the announced portfolio measures implemented or agreed upon

Efficiency targets achieved:
Savings and synergies ahead of budget

Ambitious **sustainability targets** set and anchored

Record investment in research and development





# 2020: Good start to the year; COVID-19 influences outlook and priorities for the remainder



#### Employee Health

Securing health and safety of employees

#### **Business Continuity**

 Safeguarding supply, production, logistics and business operations

#### Humanitarian Efforts

 Health for all, hunger for none – using our expertise in health and nutrition in global crisis



#### Focus areas 2020

1

#### Group

- Maintain operational targets; adapt as necessary from COVID-19
- Continued focus on cash flow

2

#### **Crop Science**

- Continue with integration
- Focus on pipeline execution

3

#### **Pharmaceuticals**

Progress with pipeline developments, launch new indications / products

4

#### **Consumer Health**

 Continue to drive growth acceleration program

5

#### Efficiency / Bayer 2022

Follow through with efficiency improvement program and realize synergies

6

#### Portfolio Measures

 Closing of Animal Health sale, expected by mid 2020



# Agenda

**Bayer Group Overview** 

Vision and Strategic Pillars for Crop Science



# Shaping agriculture to benefit farmers, consumers and our planet

As the industry leader uniquely positioned to create value through innovative tailored solutions





#### Four core pillars underpin our vision for Crop Science





**Drive operational excellence** 









**Deliver world-class innovation** 



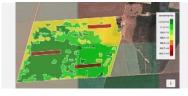






**Pioneer the Digital Transformation** 









**Set New Standards in Sustainability** 









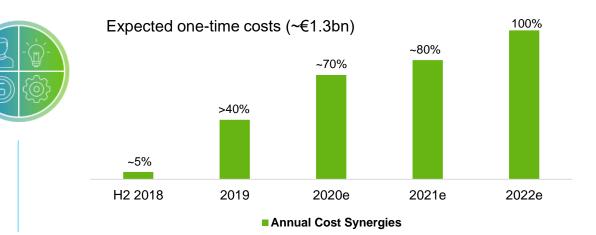
# Integration and synergies ahead of plan in Crop Science

#### **Integration Achievements**



- Crop Science functions advancing rapidly with organizational integration; selections essentially complete
  - Support functions to be completed in alignment with Bayer 2022 project
- // Cultural Integration: Continued high levels of employee engagement; ~75%
- // Cost Synergies:
  - Now expect ~70% of the synergy target complete by end of 2020 vs. original target of 55%
  - // Focused on headcount, IT and infrastructure savings

#### Cost Synergies <sup>1,2</sup>: ~€870m (~\$1bn) as of 2022



#### Sales Synergies¹: ~€170m (~\$200m) as of 2022

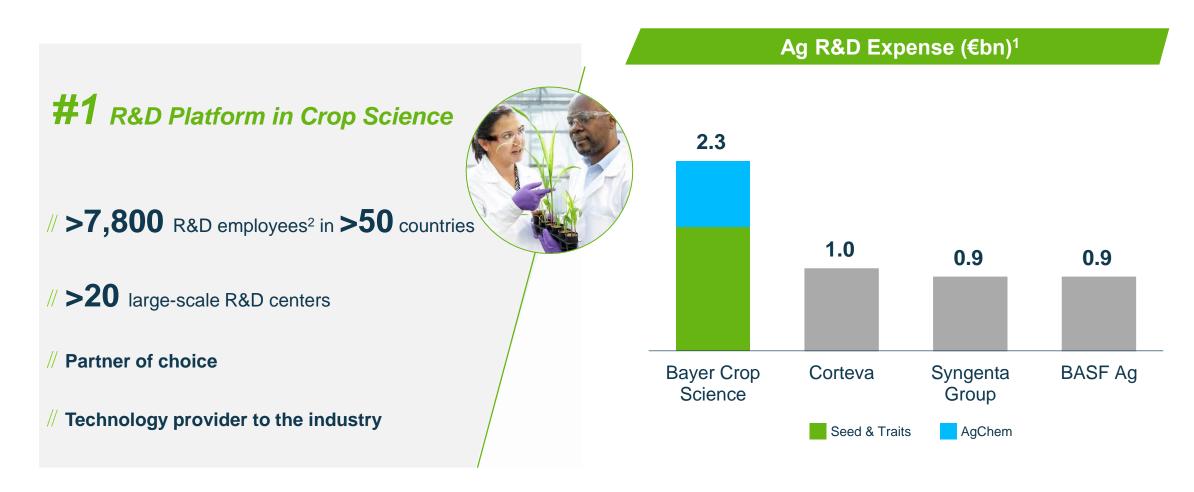
- Four countries to generate >60% of the sales synergies
  - U.S.A., Brazil, Argentina and Mexico
- Bayer Plus program generating incremental sales in the U.S. in first season

Net EBITDA impact before special items, net of estimated dissynergies such as termination of selected distribution agreements as well as sales disruptions

<sup>&</sup>lt;sup>2</sup> Majority of one time costs to achieve synergies expected to be recorded as special items Applied FX rate of USD/EUR of 1.15



## Unmatched R&D investment powers industry-leading profitability



<sup>&</sup>lt;sup>1</sup> Bayer and Corteva based on 2019 reported R&D and there is an internal proforma estimate derived from company reports for the newly formed Syngenta Group. Proforma estimate for the SYT group includes the 2019 reported R&D expense for Syngenta – not including capitalized R&D of \$344M– to be comparable to peers in the chart. The Syngenta Group estimate does not consider Sinochem R&D. BASF is based on 2018 reported R&D expense.

<sup>2</sup> Includes permanent and temporary employees



# Advancing agriculture with a decade of transformative products

Key product highlights featured represent >€22bn³ of peak sales potential

#### Select Planned Product Launches<sup>1</sup>

	Expected Ongoing Refreshment	2020 2021 2022 2023 // 2027 2028 2029 2030
Herbicides	New Formulation Launches in the next Decade	New Soybean Selective New Non-Selective New Mode of Herbicide Mixtures PPO Herbicide <sup>2</sup> Action Herbicide New Autumn Herbicides for Cereals
Corn	150+ New Hybrids Commercialized Annually	FieldView Advanced Seed Scripting 3 <sup>rd</sup> , 4 <sup>th</sup> and 5 <sup>th</sup> Generation Herbicide Tolerance Traits  FieldView Seed Advisor SmartStax PR0 trait Short Stature Corn Hybrids/Short Stature Corn Trait
Soybeans	150+ New Varieties Commercialized Annually	TENDFLEX.  FieldView Seed Placement  4th and 5th Generation Herbicide Tolerance Traits
Fungicides	20+ New Formulation Launches in the next Decade	Fox Supra (Indiflin®) for Soybeans <sup>2</sup> New Fungicide for Asian Soybean Rust
Insecticides	New Formulation Launches in the next Decade	vayego (tetraniliprole) for Corn, Rice, Novel Mite Solution Horticulture and Other Crops
Other, Vegetables, Environmental Science, Seed Growth	~150 Vegetable Hybrids/Varieties Commercialized Annually  New Formulation Launches in the next Decade	3 <sup>rd</sup> Gen BioRise Microbial Seed Treatment  Thryven  Lygus & Thrips Control Cotton Trait

<sup>&</sup>lt;sup>1</sup> Subject to regulatory approvals and pending registrations. Represents a subset of the pipeline. Launches are all approximates.

<sup>&</sup>lt;sup>2</sup> In collaboration with Sumitomo. <sup>3.</sup> Internal estimate; ~45% of the peak sales potential is incremental



# FieldView: the leading brand and digital platform for growers

#### **Growth Fueled by Platform Advantages**

#### 110m Acres

Subscribed acre target for 2020

#1 Brand

in digital Ag space<sup>2</sup>

#### **Largest Database**

of grower and field trial seed performance data in the industry

#### **Global**

distribution footprint established

>70 Partners

on the FieldView Platform

#### **New Business Models**

enabling sharing of value and risk

>35 Next-Gen Projects

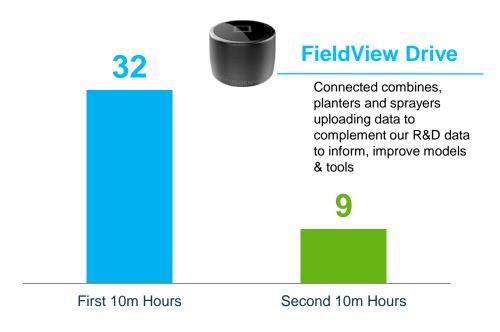
in the pipeline

#### ~1bn Global Acre

Opportunity for Corn, Soybean, Wheat<sup>3</sup>

#### **Data Collection Accelerating**

#### **Months to Collect 10m Connected Hours**



<sup>&</sup>lt;sup>1</sup> Internal estimates

<sup>&</sup>lt;sup>2</sup> 2018 Brand Health Monitor

<sup>&</sup>lt;sup>3</sup> Harvested acres – USDA FAS 2018-10-11, ex China



## Enhancing sustainability and biodiversity in agriculture

Bayer's Sustainability Commitments by 2030

# Advancing a carbon-zero future for agriculture

through helping our customers reduce field greenhouse gases by crop production.

30%
Reduction in field
greenhouse gases emitted
per kg of crops produced

- Climate-smart practices:
  - // No-tillage Highly Productive Crops // Cover Crops Precision Agriculture
- Optimize use of synthetic fertilizers through the use of microbes

Produce higher-yielding crops with fewer natural resources and inputs

30%
Reduction in impact
on the environment

Climate FieldView for precision application of pesticides /fertilizers



Resistant traits help to reduce pesticide use



Develop crop protection products with lower environmental impact

Empower 100 million smallholder farmers

**100**m

**Smallholders benefit** e.g. from access to education, tailored solutions & partners

# Enhancing social innovation (e.g. with Better Life Farming)



Digital transformation with FarmRise



Introduce new, higher-yielding, resource efficient rice hybrids





#### **Q&A Session**



Liam Condon
President,
Crop Science Division



Robert Reiter, Ph. D. Head of R&D, Crop Science Division



Laura Meyer Senior Manager, Investor Relations



# Appendix

#### Q1 2020 financial results

**Divisional summaries** 

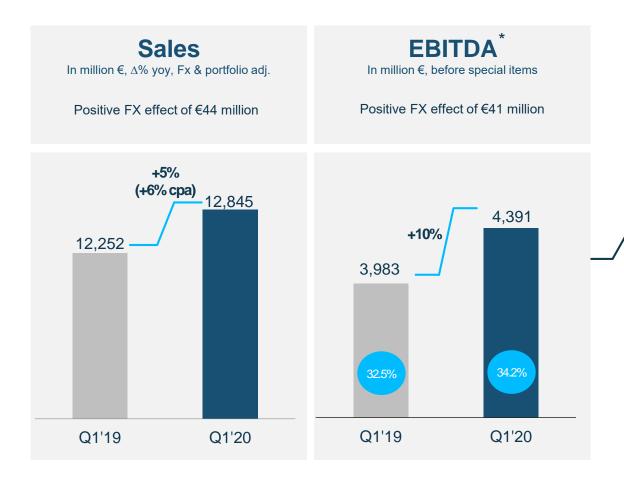
**Crop science pipeline highlights** 

Pharma pipeline highlights

//////////



#### 2020: Good start to the year



- Sales and earnings growth in all three divisions
- Sharp rise in demand for some consumer health products, e.g. nutritional supplements, and some increased stocking of crop protection due to COVID-19
- Limited negative impact from pandemic restrictions in certain parts of the business
- Strong increase of EBITDA before special items due to volume increases and cost synergies



#### Crop Science off to a good start





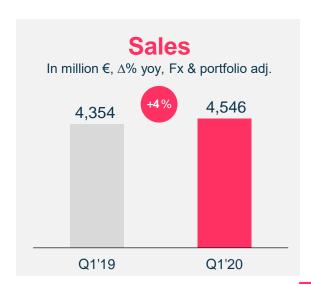


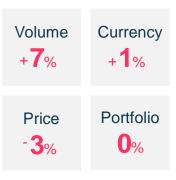
EBITDA Margin before special items \*2019 figures are restated

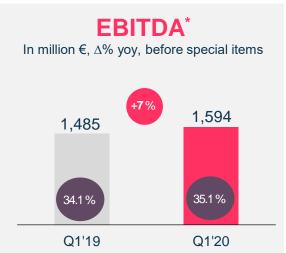
- 6% cpa sales growth, with contributions from all regions
- Good growth across insecticides, fungicides, corn seed & traits and herbicides
- Soybean seed & traits continue to decline due to competition
- Strong increase of EBITDA before special items due to volume increases and cost synergies



#### Pharmaceuticals performance driven by Xarelto







EBITDA Margin before special items \*2019 figures are restated

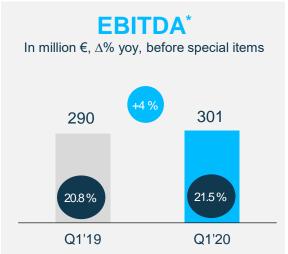
- Xarelto (+19%) as main growth contributor
- Eylea (+1%) impacted by phasing
- China with softer growth partly due to phasing in anticipation of volume-based procurement introduction
- Solid increase in EBITDA before special items
- EU approval for darolutamide and pre-filled syringe for Eylea
- Positive phase III data for Vericiguat (VICTORIA) and Xarelto (VOYAGER PAD)



## Strong demand for Consumer Health products in all regions







EBITDA Margin before special items \*2019 figures are restated

- All regions with elevated demand primarily related to the COVID-19 epidemic
- Strong growth across categories, especially in Nutritionals (+34%), Pain and Cardio (+20%) and Allergy & Cold (+15%)
- Margin expansion driven by sales growth offsetting negative portfolio effect and higher marketing expenses
- Positive effect on earnings by growth acceleration program ("Fit to Win")



#### Outlook: Impact variables of COVID-19 situation



**Production and Supply** 

Stability of entire supply chain

Inventory / Safety stock

Logistics, also impact on costs

**Demand Dynamics** 

Demand patterns, e.g. stockpiling

Impact on elective treatments

Bio-fuel demand & seasonal labor

Clinical trials and regulatory processes

**Financial Markets** 

Debt market access / interest rates

Payment behavior of customers and solvency of suppliers

FX volatility

**Trends / Opportunities** 

Cost management

Acceleration of digitalization

Role of science in society





# Appendix

Q1 2020 financial results

#### **Divisional summaries**

**Crop science pipeline highlights** 

Pharma pipeline highlights

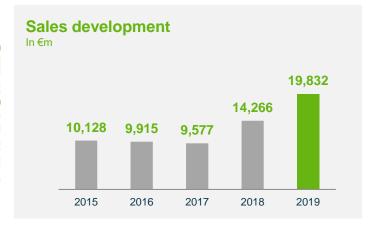
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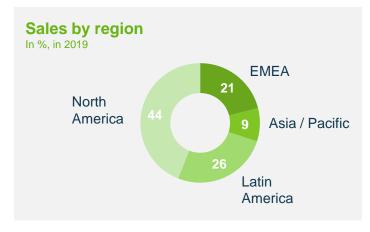
# Crop Science: number one global platform

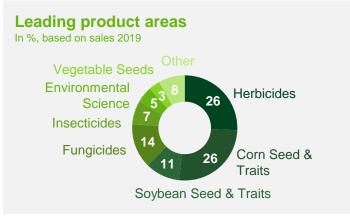
# **FINANCIALS**

**PRODUCT** 













<sup>&</sup>lt;sup>1</sup> Source: Bayer CS market model <sup>2</sup> 2019 cEBITDA restated for change in value flow concept

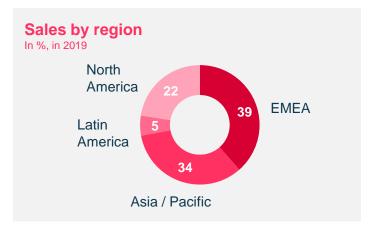


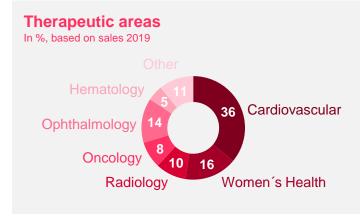
## Pharma: focused on therapeutic areas with high unmet needs



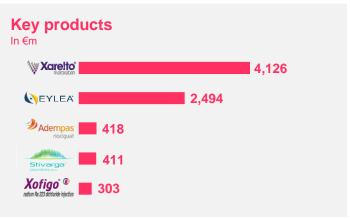












**PRODUCTS** 

<sup>&</sup>lt;sup>1</sup> Source: IQVIA 2017 <sup>2</sup> 2019 cEBITDA restated for change in value flow concept



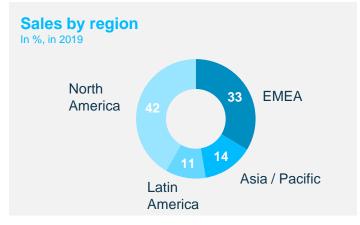
# Consumer Health: focus on five core OTC categories

# **-INANCIALS**

**PRODUCTS** 













<sup>&</sup>lt;sup>1</sup> PARS database January 2019 <sup>2</sup> 2019 cEBITDA restated for change in value flow concept



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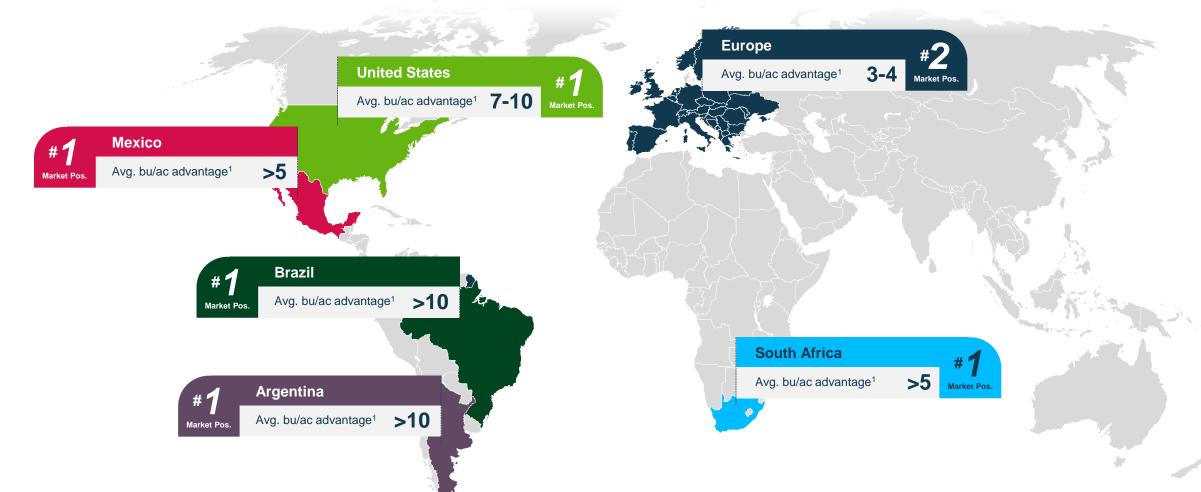
**Crop science pipeline highlights** 

Pharma pipeline highlights



# Advanced Breeding Underpins Leadership in Corn Seed & Traits

Expect to Commercialize >150 Corn Hybrids a Year to Drive Growth in €5.2bn² Corn Seed & Traits Sales



<sup>1</sup> Range is either less than or inclusive of the current 3-year average yield advantage based on a comparison of yield data from new Bayer Crop Science products in their year of deployment against competitive market leaders for said region or country. Averages weighted in countries/regions by hybrid market size and exclude non-grain market.

<sup>&</sup>lt;sup>2</sup> 2019 proforma sales



# XtendFlex Soybeans; Planting Production for 20M Acres in 2021

Built on the Proven Performance Roundup Ready 2 Xtend Soybeans









Low-Volatility Dicamba



Provides exceptional weed control and yield with a triplestack herbicide-tolerance trait providing growers with the flexibility of three over-the-top herbicide options:

Glyphosate

Low-Volatility
Dicamba

Glufosinate

- Increases spectrum of control from 350 to 375 weed species; Enlist E3™ system only controls 260²
- Average 2019 yield and agronomic performance consistent with Roundup Ready 2 Xtend soybeans<sup>3</sup>
- Planting stewarded production plan to enable 20M acres in the U.S. in 2021



Enables
continued use
of conservation
tillage and notill systems
which improve
carbon
sequestration
and soil health

Xtendimax with VaporGrip Technology is a Restricted Use Pesticide. Always read and follow label instructions. Products not registered in all jurisdictions. Enlist E3™ is trademark of Corteva

<sup>&</sup>lt;sup>1</sup> Commercial availability pending regulatory approval

<sup>&</sup>lt;sup>2</sup> Based on EPA labels for the chemistries.

<sup>&</sup>lt;sup>3</sup> Derived from 26 site locations in SC, NE, IN, IL, WI, MO, IN, AR, IA, NC, KS, SD, OH & GA



# Fox Xpro Fungicide Upgrades Fox Franchise in Brazil

Full Control of All Relevant Diseases in Soybeans; €600m Peak Sales Potential Opportunity



Builds on #1 position in soybean fungicides<sup>1;</sup> >400% sales growth in 2019/20 season

- // Long-lasting solution to offer full control of all relevant soybean diseases including Asian Soybean Rust
- // Combines three different actives from different classes to provide excellent disease control and unmatched resistance management properties
- # AGROW Award 2019 "Best Formulation Innovation": Optimized formulation to boost performance and minimize environmental impact by reducing off-target losses
- # Enables use in major crop rotation systems with cotton, corn, cereals and sunflower
- // Next-generation technology, Fox Supra (Indiflin®2), in Phase 4







Reduces
environmental
impact
through
innovative
formulation

Internal estimates

<sup>&</sup>lt;sup>2</sup> In collaboration with Sumitomo. Always read and follow label instructions. Products not registered in all jurisdictions.



# Two Approaches to Short Stature Corn Advance

Genome Editing Reveals Promising Third Option

**Three Development Approaches to Short Stature Corn Provide Options to Access Multiple Markets** 

#### **Breeding: ADVANCED TO PHASE 3**

Advanced breeding used to introgress naturally occurring short stature characteristic into elite germplasm.

**VITΛLΛ** commercial beta in Mexico in 2020

#### // Biotech: ADVANCED TO PHASE 3

In collaboration with BASF, uses transgene to shorten internodes; enables applicability across wide-array of germplasm.

#### **NEW!** // **Genome Editing: DISCOVERY**

Multiple, elegant approaches to generate short-stature corn, creating potential for opportunities in multiple markets.





## New Herbicide Molecule Unlocks Greater Flexibility

First New Post-Emergence Mode of Action for Broad Acre Weed Control in 30 Years

#### Potential to build on #1 position in global herbicides<sup>1</sup>

- # Entirely new mode of action advanced to Phase 2 early development
- Demonstrates effective control of key resistant grasses, includingGoosegrass and Sourgrass
- Discovery program launched in biotechnology to discover a matching herbicide tolerant trait; initial approaches under evaluation







Enables
continued use
of conservation
tillage and notill systems
which improve
carbon
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and soil health

<sup>&</sup>lt;sup>1</sup> Internal estimates



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Pharma pipeline highlights



# Late-stage pipeline with progress in oncology

	Larotrectinib (Vitrakvi)	Darolutamide (Nubeqa)	Copanlisib (Aliqopa)	Finerenone	Vericiguat
<b>Indication</b>	// TRK-fusion Cancer	// Prostate Cancer	# Lymphoma	Diabetic Kidney   Disease	Chronic Heart Failure
<b>Status</b>	// Launched	// Launched (nmCRPC) // Phase III (mHSPC)	<ul><li>// Launched in the US</li><li>// Phase III</li></ul>	// Phase III	// Phase III (HFrEF) // Phase II (HFpEF)
€ Commercial Potential	// PSP >€750m	# PSP <b>≥€1b</b> n	# PSP ≥€0.5bn	# PSP≥€1bn	// PSP ~€0.5bn
Clinical Completion	// Clinical program ongoing	// Completed (ARAMIS, nmCRPC) // Aug 2022e (ARASENS, mHSPC)	# Sep 2020e (CHRONOS-3) # Sep 2021e (CHRONOS-4)	// Completed (FIDELIO-DKD) // June 2021e (FIGARO-DKD)	// Completed (VICTORIA, HFrEF) // Completed (VITALITY, HFpEF)

NTRK: Neurotrophic receptor tyrosine kinase; nmCRPC: Non-metastatic castration resistant prostate cancer; mHSPC: Metastatic hormone sensitive prostate cancer; HFrEF: Heart failure with reduced ejection fraction; HFpEF: Heart failure with preserved ejection fraction; PSP: Peak sales potential