

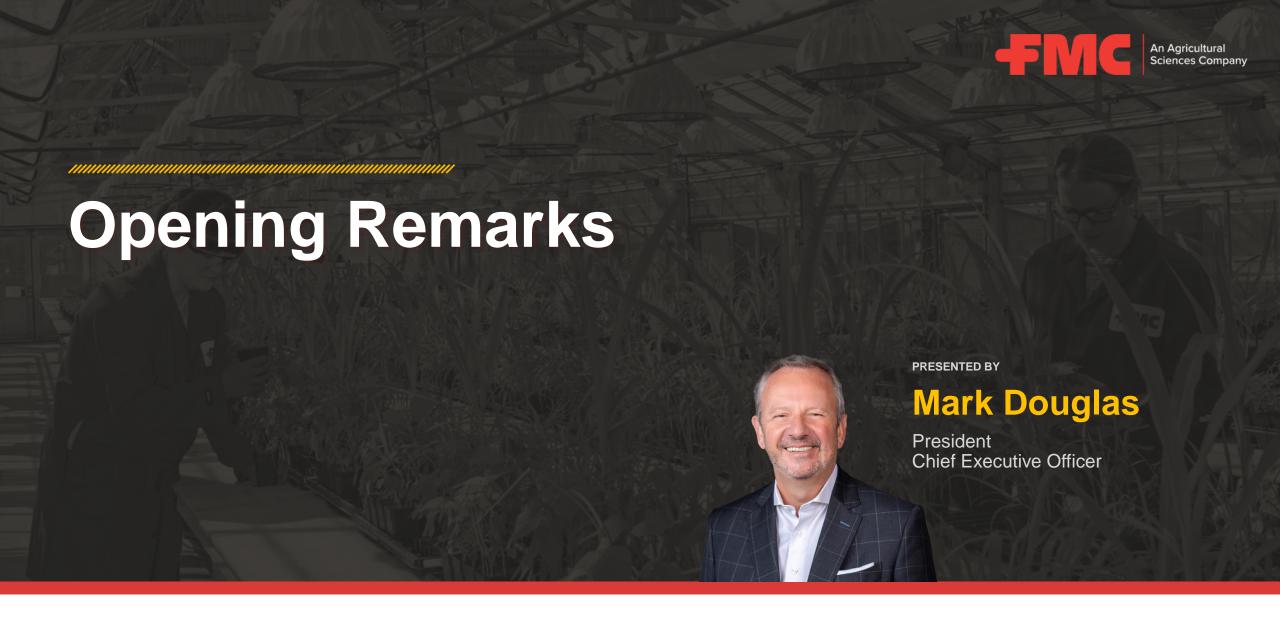
## Safe Harbor Statement



Safe Harbor Statement under the Private Securities Litigation Reform Act of 1995: Certain statements made in this presentation are forward-looking statements. In some cases, you can identify these statements by such words or phrases as "will likely result," "is confident that," "expect," "expects," "should," "could," "may," "will continue to," "believe," "believes," "anticipates," "predicts," "forecasts," "estimates," "projects," "potential," "intends" or similar expressions identifying "forward-looking statements" within the meaning of the Private Securities Litigation Reform Act of 1995, including the negative of those words and phrases. Such forward-looking statements are based on management's current views and assumptions regarding future events, future business conditions and the outlook for the company based on currently available information. These statements involve known and unknown risks, uncertainties and other factors that may cause actual results to be materially different from any results, levels of activity, performance or achievements expressed or implied by any forward-looking statement. Currently, one of the most significant factors is the potential adverse effect of the current COVID-19 pandemic on the financial condition, results of operations, cash flows and performance of FMC, which is substantially influenced by the potential adverse effect of the pandemic on FMC's customers and suppliers and the global economy and financial markets. The extent to which COVID-19 impacts us will depend on future developments, which are highly uncertain and cannot be predicted with confidence, including the scope, severity and duration of the pandemic, the actions taken to contain the pandemic or mitigate its impact, and the direct and indirect economic effects of the pandemic and containment measures, among others. Additional factors include, among other things, the risk factors and other cautionary statements included within FMC's 2019 Form 10-K and FMC's Form 10-Q for the guarter ended September 30, 2020, as well as other SEC filings and public communications. Moreover, investors are cautioned to interpret many of these factors as being heightened as a result of the ongoing and numerous adverse impacts of the COVID-19 pandemic. FMC cautions readers not to place undue reliance on any such forward-looking statements, which speak only as of the date made. Forward-looking statements are qualified in their entirety by the above cautionary statement. FMC undertakes no obligation, and specifically disclaims any duty, to update or revise any forward-looking statements to reflect events or circumstances arising after the date on which they were made, except as otherwise required by law.

#### Non-GAAP Financial Terms

These slides contain certain "non-GAAP financial terms". Such non-GAAP financial terms include adjusted EBITDA, adjusted EPS, adjusted tax rate, adjusted cash from operations, free cash flow ("FCF") and organic revenue growth. Definitions of these terms, as well as a reconciliation to the most directly comparable financial measure calculated and presented in accordance with GAAP, are provided on our website investors.fmc.com. Although we provide forecasts for these non-GAAP financial measures, we are not able to forecast the most directly comparable measures calculated and presented in accordance with GAAP. Certain elements of the composition of the GAAP amounts are not predictable, making it impractical for us to forecast. Such elements include, but are not limited to restructuring, acquisition charges, and discontinued operations and related cash activity. As a result, no GAAP outlook is provided.



## **Today's Topics and Presenters**



**Opening Remarks Mark Douglas** President Chief Executive Officer Dr. Kathleen Shelton Technology Portfolio Overview Vice President Chief Technology Officer **Questions** Valuing the Pipeline **Diane Allemang** Vice President **Chief Marketing Officer** Financial Implications and Policies **Andrew Sandifer Executive Vice President Chief Financial Officer Questions** 

## **Technology and Sustainability** Must Address World Challenges



- Demand for food, protein and feed is rising annually.
- Farmers must produce more crops on less land.
- Environment-related risks rate highest for their impact and likelihood to affect world's economy.1
- Additional 130 million people could face acute food insecurity by the end of 2020.2



8.5 billion PEOPLE BY 2030 Increase of 1B since 2015



>10% increase **IN PER CAPITA PROTEIN** CONSUMPTION



1.5 million acres OF AGRICULTURAL LAND LOST ANNUALLY

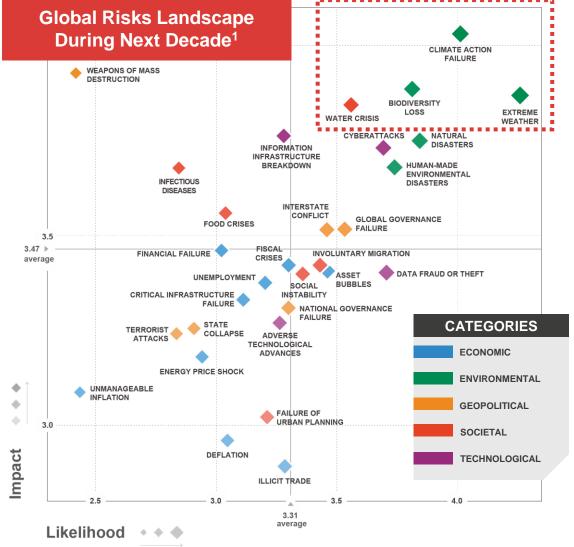


**50%** more FOOD, FEED AND **FUEL REQUIRED BY 2050** 



Declining Arable Land
1/2 acre/person (today)
1/3 acre/person (2050)

<sup>1</sup>Source: World Economic Forum Global Risks Report 2020 <sup>2</sup>Source: UN World Food Programme



# Our Commitment to Technologies that Maintain a Safe, Secure and Sustainable Food Supply







### **ESG PRIORITIES**



### **ENVIRONMENTAL**



#### SOCIAL



#### **GOVERNANCE**

- **Energy Use**
- **GHG** Emissions
- Water Use
- Waste Generated
- Maintaining Biodiversity

- **Gender Equality**
- Labor Rights
- Diversity and Inclusion
- **Human Rights**
- Right to Education

- Transparency
- Institutional Trust Risk Management
- Ethics & Compliance
- Board & Leadership **Diversity**

### **U.N. SUSTAINABLE DEVELOPMENT GOALS**



#### **GOAL 2: Zero Hunger**

End hunger, achieve food security, improve nutrition and promote sustainable agriculture.



#### **GOAL 15: Life on Land**

Protect, restore and promote sustainable use of terrestrial ecosystems, sustainably manage forests, combat desertification, and halt/reverse land degradation and biodiversity loss.

<sup>\*</sup> Waste disposed intensity is calculated as the total amount of waste disposed (metric tonne) per metric tonne of product. Due to anticipated shifts in FMC's product mix and expected growth through 2030, waste disposed intensity is expected to increase by 55 percent. Therefore, we will need to decrease our waste disposed intensity by 55 percent to maintain the 2018 base year intensity.

## Office of the Chief Sustainability Officer





Dr. Karen M. Totland

- Broaden FMC's Environmental, Social and Governance efforts.
- Elevate, expand and integrate sustainability across every facet of the company.
- Create one, unified organization that leverages the strengths and expertise of key functions and organizations.

#### **OFFICE OF THE CSO**











# Powering One of the Most Productive Crop Protection Pipelines in Agriculture



\$1.8 - \$2.1 BILLION

Revenue Contribution by 2030 From New Active Ingredients

\$2.5 - \$3.0 BILLION

Peak Sales
From New Active Ingredients

>35 New Active Ingredients<sup>1</sup>

>25 New Active Ingredients

6107

**Discovery Pipeline** 

1 1 New Active Ingredients

**Development Pipeline** 

>20

New Modes of Action<sup>2</sup>

Advanced at least one gate since 2018

## **Investing in Innovation and Disruptive Technologies**



### **FMC VENTURES**

#### **Broadening Access to New Opportunities and Disruptive Technologies**

	FOCUS	BENEFITS
ARTIFICIAL INTELLIGENCE FOR DISCOVERY & SYNTHETIC BIO	<ul> <li>Artificial Intelligence and Machine Learning for discovery and development</li> <li>Protein engineering and strain optimization</li> </ul>	Accelerate discovery     Reduce     commercialization risk
BIOPESTICIDES	<ul> <li>Living organisms with pesticidal or yield enhancing properties</li> <li>Semio-chemicals</li> </ul>	<ul> <li>Address regulatory and consumer demands</li> <li>Improve resistance management</li> </ul>
ROBOTICS & PRECISION AGRICULTURE	<ul><li>Digital agronomy</li><li>Detection and diagnostics</li><li>Application</li></ul>	Improve sustainability     Increase growers' return     on investment
EMERGING BUSINESS MODELS	<ul><li>Digital marketplaces</li><li>Alternative channels and business models</li></ul>	Capture value at different points in value chain

CURRENT
INVESTMENTS &
PARTNERSHIPS

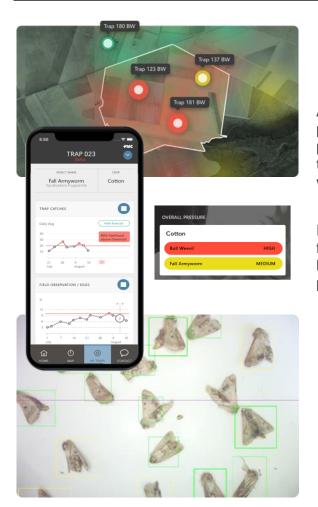








#### PRECISION AGRICULTURE





Arc™ farm intelligence is the first mobile platform in the agricultural industry that uses the power of real-time data and predictive modeling to help drive the right crop protection products with precise application.

Proprietary technology provides pest pressure forecasts based on aggregated historical data, hyper-local weather data, and real-time regional pest mapping.

#### Arc™ Farm Intelligence Benefits

- Decrease environmental impact by allowing farmers to spray at the right time to address pest pressure
- Manage infestations before they escalate
- Help delay pest resistance issues through more effective and targeted product application

# Long-Range Plan<sup>1</sup> Remains on Track for Key **Target Deliverables**



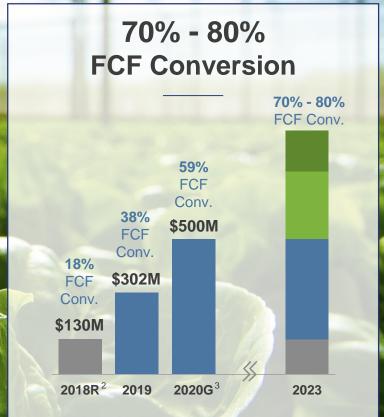




## 2023 Adjusted EBITDA



## 2023 FREE CASH FLOW



2018 BASELINE

2019-2020 GROWTH

REMAINING GROWTH



# Maintaining Research Productivity During COVID



1111111	No significant impact on R&D operations	$\otimes$
1111111	All major programs on track	$\otimes$
1111111	Produced and shipped nearly 6,000 field samples	$\otimes$
1111111	Completed more than 10,500 planned field programs	$\otimes$
11111111	All research and development sites are open and operating	$\bigcirc$

## **FMC** Research and Development



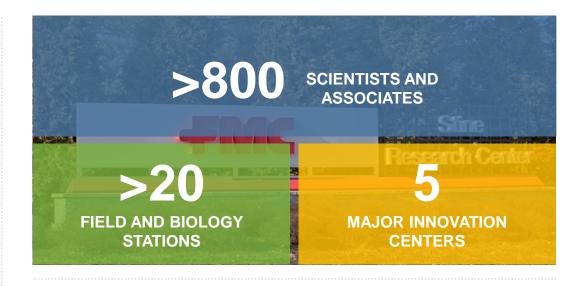


# Innovation Driving Commercial Success in a World-Class R&D Organization



#### **R&D PRIORITIES**

- Anticipate grower needs
  - New technologies
  - Filling gaps to support Integrated Pest Management (IPM)
- Focus on synthetic and biological crop protection
  - Products growers need and want, regardless of seed type
  - Pipeline productivity—strong bias for quality, not quantity
- Sustainability embedded across all pipelines
  - Synthetic chemistry
  - Biologicals
- Increase impact through precision agriculture
- Extend capabilities with external research collaborations and partnerships



### **INVESTMENTS & PARTNERSHIPS**

Dramatically accelerate the scientific discovery process for developing novel crop protection solutions



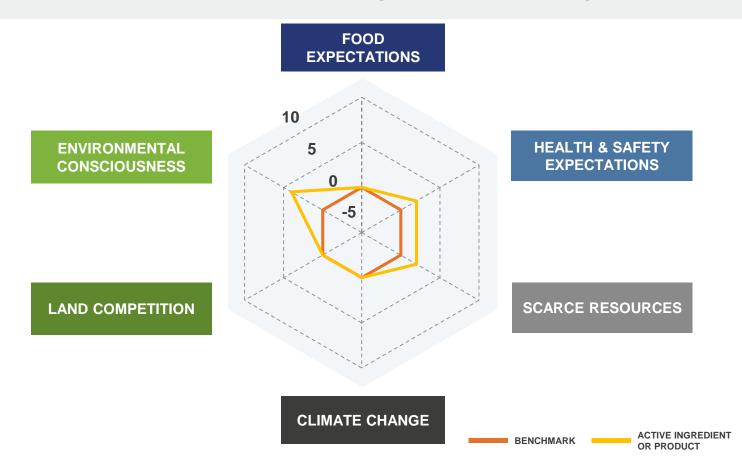






# Sustainability Assessment Tool Supports FMC's Focus on Sustainably Advantaged Technologies





#### SAMPLE OF ASSESSMENT QUERIES

- Will the product maintain/improve an ecosystem?
- Will product have a new mode of action that delays resistance development?
- Does product reduce pesticide residues in food?
- Will product reduce exposure for mixers, loaders, and applicators?
- · Will product/process reduce waste in production?
- Will product reduce water used by applicator/farmer?
- Will product reduce packaging needs?
- Does product help crops or turf adapt to higher temperatures or drought conditions due to changing weather conditions?
- Will product improve consistency of yield?
- Does product improve soil quality?
- Does product reduce pesticide drift during application?
- Award-winning tool developed by FMC gauges sustainability of new formulated products and active ingredients in the pipeline.
- Products and active ingredients are compared to benchmark products in the market and are assigned a quantifiable score.
- A sustainably advantaged product is one that positively impacts at least one of the six major Global Challenges in the diagram and does not retreat in any of the five other areas.

## A Productive Pipeline Advancing Molecules Regularly



## **DISCOVERY PIPELINE**

Synthetic ~2-4 years

Biological ~2-3 years

 Find biological activity that fits a product concept

- Optimize activity and solve problems
- Compare performance versus commercial standards
- Advance environmental, toxicity and ecological studies to confirm registrability
- Initiate evaluation of manufacturing

## **DEVELOPMENT PIPELINE**

Synthetic ~7-10 years

Biological ~3-5 years

- Define product offering and potential business case opportunities
- Develop strategy for in-scope country/crop segments
- Develop registration plan critical path
- Initiate sustainability assessment

- Major markets, country and crop segments finalized and registration submitted
- Initiate launch plans and brand architecture
- Develop supply chain
- Update sustainability and product stewardship assessments

HITS STAGE A

STAGE B

STAGE C LEADS PROGRESS TO DEVELOPMENT PIPELINE

**DEFINITION** 

**VALIDATION** 

**DEVELOPMENT** 

LAUNCH AND REALIZATION

- Improve activity and identify uncertainties
- Verify product conceptual fit
- Continue chemistry optimization
- Initiate preliminary investigatory studies
- Perform field studies

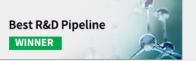
- Best-in-class analog identified
- Freedom to operate assessment and IP strategy
- Initial patent disclosures/application submitted
- Preliminary regulatory studies completed, and performance validated in lab/greenhouse

- Optimize formulations
- Complete regulatory studies
- Complete preliminary market studies
- Update sustainability and product stewardship assessments

- Obtain registrations
- Establish commercial product supply
- Launch products

# Discovery Pipeline / Synthetics

Crop Science Forum & Awards 2020 Online



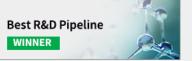


				_	Target Marke	et		Discov	very Stag	e Gate
Name	Attributes	New Mode of Action	F&V	Rice	Cereals	Corn	Soy	Stage A	Stage B	Stage C
WEED CONTROL										
Herbicide A	Selective, broad spectrum, pre- to early-post application, resistance grass control									•
Herbicide B	Selective, post-emergence broad leaf control, resistance management tool	$\otimes$							•	
Herbicide C	Selective pre-emergence broad spectrum weed control									
Herbicide D	Selective broad spectrum, resistance management tool	$\otimes$						•		
Herbicide E	Selective broad leaf weed control, resistance management tool							•		
S INSECT & NEMATODE CO	ONTROL									
Insecticide A	Cross spectrum insect control	$\otimes$								•
Insecticide B	Cross spectrum insect control								•	
Insecticide C	Cross spectrum insect control							•		
Insecticide D	Cross spectrum insect control	$\otimes$						•		
Insecticide E	Systemic control of sucking insects	$\bigcirc$						•		
Insecticide F	Cross spectrum insect control	$\bigcirc$						•		
Nematicide A	Broad spectrum nematode control							•		
DISEASE CONTROL										
Fungicide A	Rust control, resistance management tool	$\otimes$								•
Fungicide B	Rust control, resistance management tool									
Fungicide C	Broad spectrum disease control	$\otimes$							•	
Fungicide D	Rust control, resistance management tool	$\otimes$							•	
Fungicide E	Rust control									
Fungicide F	Rust control, resistance management tool	$\otimes$								
Fungicide G	Broad spectrum disease control	Ø								

<sup>\*</sup> New Modes of Action include new chemistries and new applications on specific crops.

# **Discovery Pipeline /** Biologicals

**Crop Science** Forum & Awards 2020





**BIOLOGICALS DISCOVERY PIPELINE** ~2-3 years **DEVELOPMENT HITS** STAGE A **STAGE B** STAGE C STAGE D **PIPELINE** ~25/Year **LEADS LEADS LEADS LEADS** ~3-5 years **CANDIDATES** 3 Foliar Bioinsecticides **Fermentation** Greenhouse 1 Foliar ~700/Year and Field and Field **Bioinsecticide**  Biosafety report · Fermentation and 1 Foliar Biofungicide 18 Foliar Bioinsecticides downstream In vitro / in vivo 280 Foliar Biofungicides processes 1 Foliar testing established 370 Soil Biofungicides Biofungicide 2 Bionematicides

**PRIMARY SCREENS** 

22 Bionematicides

~2000/Year

**ISOLATES** 30k-100k/Year

### **In-vitro assays**

- Pathogens
- Secondary metabolite
- Phenotypic selection tests

#### Laboratory and Greenhouse

- Full sequencing
- · Metabolic profiling
- · Leaf disc
- Root studies
- Mini pots

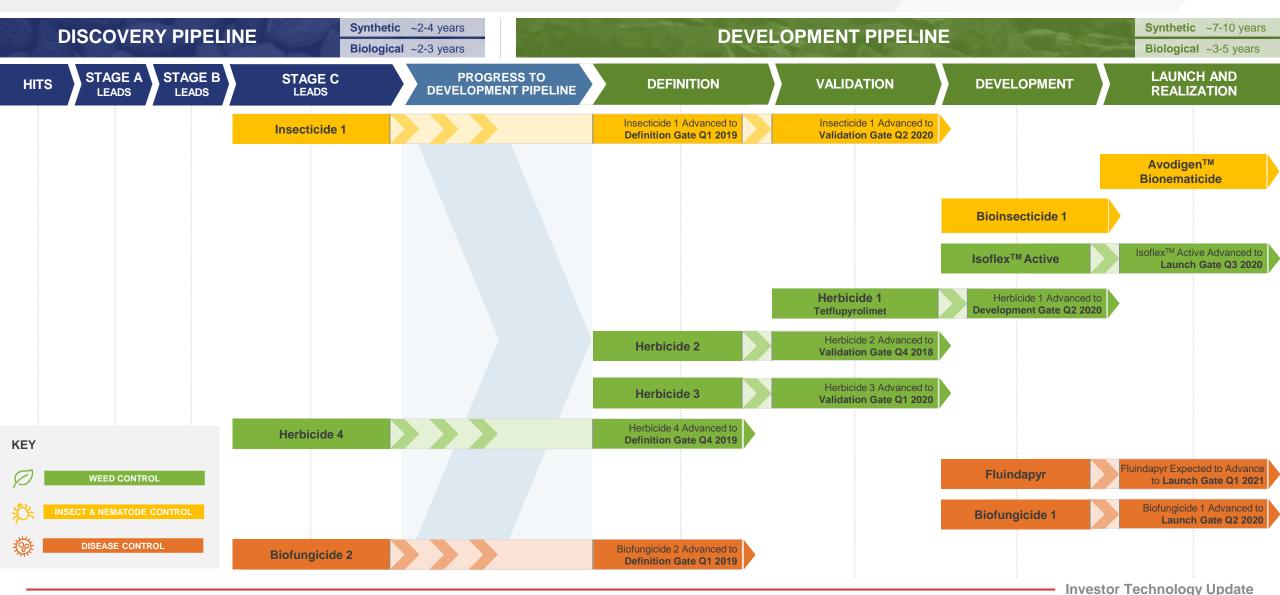
- Efficacy data
- Fermentation up to 8L
- Technical feasibility including downstream processes

- to 100L
- · Field data confirmed
- Mode of Action understanding
- Formulation complete



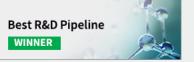
# Substantial Progress Advancing 9 Molecules since December 2018\*





# **Development Pipeline** / Synthetics and Biologicals

Crop Science Forum & Awards 2020 Online





				Target Market				Region	ıs				
Name	Launch Year <sup>1</sup>	Market Area	New Mode of Action <sup>2</sup>	F&V	Rice	Cereals	Corn	Soy	North America	Latin America	Asia	EMEA	Current Development Gate <sup>3</sup>
WEED CONTROL											,		
Isoflex <sup>™</sup> Active	2021	Selective (grasses)	$\otimes$							•	•	•	Launch & Realization
Herbicide 1 (Tetflupyrolimet)	2023	Selective (grasses)	$\otimes$						•	•	•	•	Development
Herbicide 2	2027	Selective (broad spectrum)	$\otimes$									•	Validation
Herbicide 3	2028	Selective (broadleaf)	$\otimes$						•	•	•	•	Validation
Herbicide 4	2031	Selective (broad spectrum)	$\otimes$						•		•		Definition
	DE CONTRO	)L											
Insecticide 1	2028	Piercing insects							•		•	•	Validation
Avodigen™	2021	Bionematicide	$\otimes$						•			•	Launch & Realization
Bioinsecticide 1	2023	Bioinsecticide (soil pests)	$\otimes$						•			•	Development
DISEASE CONTROL	_												
Fluindapyr	2021	Broad spectrum							•	•	•	•	Development
Biofungicide 1	2021	Biofungicide	$\otimes$						•	•	•	•	Launch & Realization
Biofungicide 2	2024	Biofungicide (foliar)	$\otimes$						•	•	•	•	Definition

<sup>&</sup>lt;sup>1</sup>Launch timing is dependent upon obtaining regulatory approvals. <sup>2</sup>New Modes of Action include new chemistries and new applications on specific crops. <sup>3</sup>Gate current as of Nov. 2020

## Isoflex<sup>TM</sup> Active—New Mode of Action Herbicide





Expected Launch: 2021 - 2026

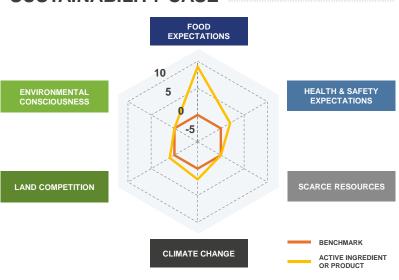


Regions: Asia, Latin America, EMEA

#### **EFFICACY ON RYEGRASS** (Australia)



#### SUSTAINABILITY CASE



Improved profiles in Food Expectations, Health & Safety Expectations, Climate Change, and Land Competition compared to industry benchmark.

#### TARGET CROPS

Cereals | Rapeseed Corn | Sugarcane Additional crops under evaluation in regional projects.

#### **INNOVATION FEATURES AND BENEFITS**

- New Mode of Action in cereals (wheat and barley).
- Controls/suppresses difficult grasses (ryegrass, crabgrass, goosegrass, blackgrass) and some key broadleaf weeds (chickweed, speedwell, shepard's purse).
- Excellent tool for resistance management in preemergent and early post-emergent crop segments on wide range of major crops.

#### IP LANDSCAPE

**4 Patent Families** 

- A new rotational technology in some markets.
- Provide systemic and contact activity with residual control.
- Key mixture partner for residual grass control in cereals and other crops.

#### **PROGRESS HIGHLIGHTS**

- Progressed to Launch Gate in Q3 2020.
- Australia active ingredient registration approved.
- Brazil active ingredient registration submitted early 2020.
- EU active ingredient dossier submitted to UK and Netherlands.

- Began commercial production of technical material at Panoli, India facility.
- Formulated commercial product being produced at Wyong, Australia facility.
- Australia product launch prepared for Q1 2021.

**DEVELOPMENT STAGE GATE STATUS** 

Definition

Validation

Development

LAUNCH

## **Isoflex<sup>TM</sup> Active—**New Mode of Action Herbicide



## TECHNICAL and PERFORMANCE ATTRIBUTES | Overwatch® Herbicide1

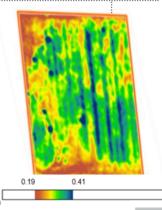
Metric	Parameter	Overwatch <sup>®</sup> Herbicide	Competitor	Overwatch® Herbicide Summary
	Efficacy	++++	++++	Excellent control of key grass weeds and selected broadleaf weeds >= to commercial standards
Biological Performance	Crop Safety	++++	+++	Excellent crop safety in wheat including durum
	Yield	++++	++++	Potential yield and quality enhancements
Pest	Mode of Action	++++	+++	Unique mode of action for wheat and barley
Resistance	Resistance Status	++++	+++	Controls resistant weed populations
Management	Resistance Management Fit	+++++	+++	New tool for resistance management in rotational crops
	Sustainability	+++++	+++	Good safety profile
	Registration Status	+++++	++++	Granted in Australia for wheat, barley and canola
Regulatory	IPM Compatibility	+++++	+++	Excellent fit in pest management programs
	Environmental Safety	+++++		Good non-target organism profile
	Worker Safety	+++++		Good human safety profile
	Pest Spectrum	+++++	++++	Broad spectrum control of key grasses and broadleaves
	High Crop Residue	+++++	+	Works well in situations with up to 50% stubble cover
Overall Summary	Residual Control	+++++	+++	Long lasting weed control, up to 12 weeks residual weed control
<b>y</b>	Agronomic Fit	+++++	++++	Good fit in grower crop production systems and IPM programs
	FMC Portfolio Fit	+++++	++++	Fills gaps in current herbicide portfolio and an excellent complement to existing products

#### **INCREASED CROP BIOMASS** (Australia)



Greater crop growth on wheat treated with Overwatch™ herbicide (right) compared to competitive product (left).

NDVI<sup>2</sup> images of Overwatch™ herbicide skip row trials in Australia show clear contrasts in crop biomass compared to grower standard products. Blue indicates greater crop biomass.



GRASS CONTROL RATINGS (MORE + SIGNS IMPLY BETTER PERFORMANCE) FOR PRODUCT AND OTHER HERBICIDES FOR COMPARISON

EXCELLENT (5+)

GOOD (4+) MODERATE (3+) POOR (1+) NO DATA AVAILABLE

## Tetflupyrolimet (Herbicide 1)—First New Mode of Action **DHODH Herbicide in Decades**





Expected Launch: 2023 - 2027

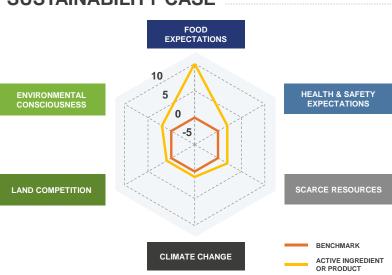


Regions: Asia, Latin America, North America, EMEA

#### **EFFICACY ON RYEGRASS** (Brazil)



#### SUSTAINABILITY CASE



Improved profiles across all areas, especially Environmental Consciousness, Food Expectations, Health & Safety Expectations, and Scarce Resources compared to industry benchmark.

#### **TARGET CROPS**



#### IP LANDSCAPE

**Patent Families** 

**U.S.** Composition of Matter patent in force into 2034

Other key patent filings extend beyond 2034

#### **INNOVATION FEATURES AND BENEFITS**

- · First new Mode of Action (DHODH) herbicide in decades—a significant innovation.
- · Controls herbicide resistant grass weeds in rice.
- Outstanding residual control (50+ days) of key grass weeds, some sedges and broadleaf weeds, with excellent safety on transplanted or direct-seeded Indica or Japonica rice.
- Excellent fit in global rice grass/cross spectrum weed market, especially as a "One Shot" mixture product.
- Potential fit in other crops, including sugarcane, wheat, corn, soybeans.

#### PROGRESS HIGHLIGHTS

- Progressed to Validation Gate in 2018, and to Development Gate in Q2 2020.
- Completed efficacy and residue trials in key countries.
- Continue to advance registration studies for Q4 2021 submissions.
- Prototyping mixture formulations.
- Generating data to support premix concept; working on a formulated premix for U.S. market.

- Selected Manatí, Puerto Rico, facility for initial manufacturing site. Identified two alternative manufacturing sites.
- Will initiate capital project for first commercial production in 2022.
- Submitted technical brand names; formulated product brand architecture in progress.

**DEVELOPMENT STAGE GATE STATUS** 

Definition

Validation

**DEVELOPMENT** 

Launch

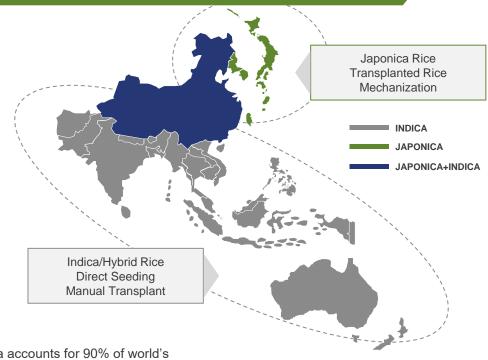
# **Tetflupyrolimet (Herbicide 1)**—First New Mode of Action DHODH Herbicide in Decades



### **TECHNICAL and PERFORMANCE ATTRIBUTES**

Herbicide	Tetflupyrolimet	Competitor 1	Competitor 2	Competitor 3	Competitor 4	Competitor 5
Resistance/Cross Resistance	+++++	++++	++++	+	+	++
Efficacy Level-Grasses	+++++	++	++	+++	+++	+++
Residual Control	+++++	++	++	+++	+++	++
Crop Safety	+++++	++	++	+++	+++	+++
Human Safety Profile	+++++	++	++	++++	++++	+++
Beneficial Insects Safety	+++++	++	++	++++	++++	+++
Application Timing Window	Pre/Early-Post (0-15 DAP)	Pre (up to 3 DAP)	Pre (up to 3 DAP)	Post/Mid- Post	Post/Mid- Post	Post/Mid- Post





- Asia accounts for 90% of world's rice acreage and produces 91% of world's rice production.
- Tetflupyrolimet is the only rice herbicide that is effective on all rice bio types and planting methods.
- Tetflupyrolimet is the only rice herbicide effective in all rice geographies.

#### HIGHLIGHT

Single application provides season long **95%-100%** control of grass weeds, significantly better than current or future competitive products.

Today farmers get about 80%-90% control with 2-3 different herbicide applications just for grass control.

# **Tetflupyrolimet (Herbicide 1)**—First New Mode of Action DHODH Herbicide in Decades

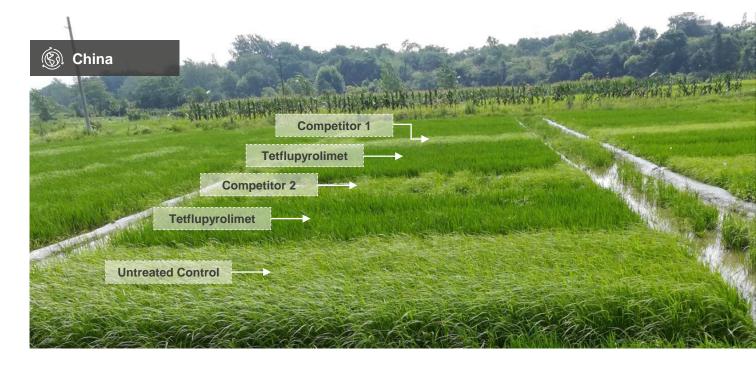


## TETFLUPYROLIMET PROVIDES EXCELLENT CONTROL of major weed species that have developed resistance

Sample of weed species now resistant [R] to commercial products

Weeds	Class	Japan	Korea	China	India	ASEAN	US	LatAm
Echinochloa species/complex	Grass	R	R	R	R	R	R	R
Leptochloa species/complex	Grass			R		R	R	
Monochoria vaginalis	BLW	R	R	R	R	R	R	

- Herbicide resistant grass weeds becoming major challenge in many rice growing countries, especially among leading herbicide brands
- Labor cost/shortage and water availability driving trend to direct seeding rice, increasing grass weed pressure



# Herbicide 2—New Mode of Action PDS Type Herbicide to Address Resistance Management



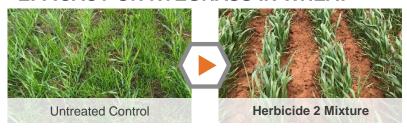


**Expected Launch: 2027** 

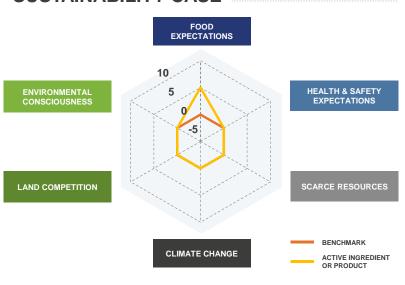


Regions: EMEA

#### EFFICACY ON RYEGRASS IN WHEAT



#### SUSTAINABILITY CASE



Improved profile in *Food Expectations* compared to industry benchmark.

#### TARGET CROPS

Cereals (Wheat & Barley)

#### IP LANDSCAPE

**5 Patent Families** 

#### **INNOVATION FEATURES AND BENEFITS**

- New Mode of Action for resistance management in several regions and segments.
- PDS type herbicide for pre- and early post-emergence control of broadleaf weeds and some grasses.
- Excellent mixing partner with Isoflex™ active in cereal herbicides. Enhances activity and provides complementary biology to other herbicides.
- Provides a cost advantaged mixture partner to Isoflex™ active in Europe.

#### **PROGRESS HIGHLIGHTS**

- Progressed to Validation Gate in late 2018.
- Completed regulatory field trial program and continue to progress other studies for planned submission in Q4 2021.
- Completed studies on various weed species.

- Field studies to evaluate recommended use rates and final formulations expected in 2021 and 2022.
- UK approval and launch timeline will be independent from EU launch. UK timeline to be confirmed early 2021.

**DEVELOPMENT STAGE GATE STATUS** 

Definition

**VALIDATION** 

Development

Launch

# Herbicide 2—New Mode of Action PDS Type Herbicide to Address Resistance Management



#### **TECHNICAL and PERFORMANCE ATTRIBUTES**

Herbicide	Herbicide 2 + Isoflex™ Active & other premixtures	Competitor 1 Premixtures	Competitor 2 Premixtures	Competitor 3 Premixtures
Resistance/Cross Resistance*	++++	++++	++++	+++
Efficacy Level-Grass Control	++++	++++	++++	+++
Efficacy - Key BLWs	++++	++++	+++	+++
Residual Control	++++	++++	+++	+++
Crop Safety	++++	++++	++++	++++
Ecotoxicology Profile	++++	+++	++	++
Environmental Safety	++++	++	++	++

#### **HERBICIDE 2 ATTRIBUTES**

- Single isomer of current FMC's commercially available beflubutamid, with higher biological activity compared to beflubutamid on key EU weed species.
- Primary focus is EU and in mixtures with Isoflex<sup>™</sup> active in EU wheat and barley for hard-tocontrol grasses and key broadleaf weed species, resistant to current herbicides.
- Better regulatory profile compared to current herbicides in EU region. Potential for FMC to take significant market share in EU autumn/spring cereals market (due to regulatory challenges faced by competitive products going through EU renewal process with potential rate reduction or losing registration in near future).
- Potential opportunities in EU region for soybeans, corn.

#### HIGHLIGHT

Ecotox Profile and Environmental Safety are important factors for EU region.

#### **EFFICACY ON CEREALS** (Italy)

Papaver | Key BLW resistant to current herbicides



EXCELLENT (5+)

GOOD (4+

AVERAGE (3+)

BELOW AVERAGE (2+)

POOR (1+)

WEED CONTROL RATINGS (MORE + SIGNS IMPLY BETTER PERFORMANCE) FOR PRODUCT AND OTHER HERBICIDES FOR COMPARISON

<sup>\*</sup> Controls resistance pest populations, with no known cross resistance with existing commercial standards

## Herbicide 3—New Mode of Action Herbicide for Resistant **Broadleaf Weeds**





**Expected Launch: 2028** 

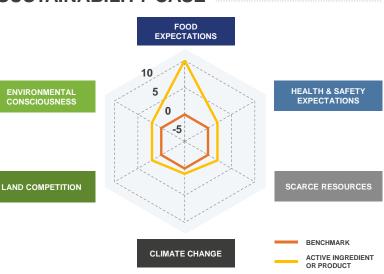


Regions: North America, Latin America, Asia, EMEA

#### EFFICACY ON PALMER AMARANTH



#### SUSTAINABILITY CASE



Improved profile in all areas, especially Environmental Consciousness, Food Expectations, Health & Safety Expectations, Scarce Resources, and Land Competition compared to industry benchmark.

#### **TARGET CROPS**

Soybeans Corn

Exploring additional crops, including cotton, wheat, rice, sunflower, pulses.

#### IP LANDSCAPE

**Patent Families** 

U.S. Composition of Matter patent in force into 2035

Other kev patent filings extend beyond 2035

#### INNOVATION FEATURES AND BENEFITS

- New Mode of Action herbicide to control herbicideresistant broadleaf weeds in row crops.
- · Complementary with all seed trait technologies.
- Excellent pre-emergent control of amaranthus species (Palmer, waterhemp, redroot pigweed) with outstanding residual performance.

#### **PROGRESS HIGHLIGHTS**

- Progressed to Validation Gate in early 2020.
- Continue to advance regulatory studies, including soil metabolism and toxicity.
- Finalizing first formulation and continue to undergo optimization for other formulations.
- Exploring mixture ratios with key mixture partners for corn and soybeans.

- Performing field studies to evaluate expansion opportunities in Canada, Australia and Latin America.
- ISO common name candidates submitted, expect publication by year-end.

**DEVELOPMENT STAGE GATE STATUS** 

Definition

**VALIDATION** 

Development

Launch

# **Herbicide 3**—New Mode of Action Herbicide for Resistant Broadleaf Weeds



### **TECHNICAL and PERFORMANCE ATTRIBUTES**

Herbicide	Herbicide 3 Solo	Herbicide 3 Premixtures	Competitor 1 Premixtures	Competitor 2 Premixtures	Competitor 3 Premixtures
MOA in Corn/Soybeans	++++ (New MOA)	+++++	++	++	++
Resistance/Cross Resistance*	+++++	+++++	++	++	++
Efficacy Level- Amaranthus Species	+++++	+++++	++++	+++	+++
Efficacy - Other BLWs & Grasses	+++	+++++	+++++	+++	+++
Residual Control	++++	+++++	+++++	+++	+++
Crop Safety	++++	++++	+++++	++++	++++
Human Safety Profile	Studies in progress	Studies to be initiated	++	+++	+++
Environmental Safety	Studies in progress	Studies to be initiated	++	+++	+++
Formulation Flexibility	+++++	++++	++++	+++	+++

WEED CONTROL RATINGS (MORE + SIGNS IMPLY BETTER PERFORMANCE) FOR PRODUCT AND OTHER HERBICIDES FOR COMPARISON

EXCELLENT (5+) GOOD (4+) AVERAGE (3+) BELOW AVERAGE (2+) POOR (1+)

#### \* Controls resistance pest populations, with no known cross resistance with existing commercial standards

#### PRE-EMERGENCE CORN AND SOYBEANS (U.S.)

Palmer amaranth control / 29 days post application



**Untreated Control** 









#### HIGHLIGHT

Herbicide 3 premixes provide >95% control of key Amaranthus species.

A new mode of action for corn and soybeans, providing control to species that have developed resistance to current technologies.

# Herbicide 4—Novel Mode of Action Herbicide with Strong Broadleaf Activity





**Expected Launch: 2031** 

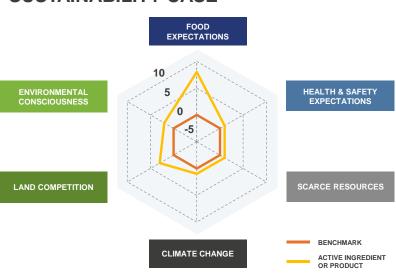


Regions: North America

#### EFFICACY ON AMBROSIA IN CORN AND SOYBEANS (Country)



#### SUSTAINABILITY CASE



Improved profile, especially in *Land Competition, Environmental Consciousness*, and *Food Expectations* compared to industry benchmark.

#### **TARGET CROPS**

Corn | Soybeans | Cereals

Rice and sugarcane being explored as potential upside.

#### IP LANDSCAPE

**8**Patent Families

U.S. Composition of Matter patent in force into 2034 Other key patent filings extend beyond 2034

#### **INNOVATION FEATURES AND BENEFITS**

- Proprietary, novel Mode of Action herbicide with preand post-emergent efficacy on resistant weeds and grasses with selectivity in multiple crops.
- Very strong broadleaf activity against Conyza, Ambrosia, and Galium.
- Controls weeds resistant to commonly used herbicides such as ALS herbicides.

- Excellent mixture partner with other pipeline and commercial chemistries.
- Effective weed resistance management tool farmers desire.

#### **PROGRESS HIGHLIGHTS**

- Progressed from Discovery Pipeline to Development Pipeline (Definition Stage) in late 2019.
- Executed field trials in North America corn, soybeans and cereals.
- Established regulatory timeline.

**DEVELOPMENT STAGE GATE STATUS** 

**DEFINITION** 

Validation

Development

Launch

# Herbicide 4—Novel Mode of Action Herbicide with Strong **Broadleaf Activity**



## **TECHNICAL and PERFORMANCE ATTRIBUTES**

Metric	Parameter	Herbicide 4	Competitor	Herbicide 4 Summary
	Efficacy	+++++	+++	Excellent control of Ambrosia species
Biological	Crop Safety	+++++	++++	Corn safety pre- and post-emergence
Performance	Soybean Safety	+++++	+	Soybean safety pre- and post-emergence
	Yield		++++	No yield trial data available
	Mode of Action	+++++	++++	New mode of action with no in-class competitors for corn, soybeans or cereals
Pest Resistance Management	Resistance Status		+++	Controls resistance pest populations, with no-known cross resistance with existing commercial standards
	Resistance Management Fit	+++++	+	Excellent resistance management profile based on the mode of action
Regulatory	Environmental Safety		++++	
Regulatory	Worker Safety		++++	
	Pest Spectrum	++++	++++	Broad spectrum control of broadleaf weeds
	Formulations		+++++	Limited mix partner data available
	Safety Profile		++++	
Overall Summary	Agronomic Fit	++++	++++	Good fit in grower crop production systems
,	Intellectual Property	+++++		Strong patent estate filings with applicable broad claims
	FMC Portfolio Fit	++++	+++	Fills gaps in current herbicide portfolio, thus excellent complement to existing products and mixture opportunities

GRASS CONTROL RATINGS (MORE + SIGNS IMPLY BETTER PERFORMANCE) FOR PRODUCT AND OTHER HERBICIDES FOR COMPARISON

EXCELLENT (5+) MODERATE (3+) POOR (1+) NO DATA AVAILABLE

#### POST-EMERGENCE DRONE IMAGE | Demonstrating Ambrosia species efficacy



#### **MIXTURES**

**Treatment 2** = Different use rate

**Treatment 4** = Different use rate

**Treatment 3** = Different use rate

**Treatment 5** = Different use rate

DARK GREEN CROPS = Strong Weed Control LIGHT GREEN CROPS = Poor or No Weed Control

# **Insecticide 1—**Novel Technology Targets Aphids on High-Value Crops and Row Crops





Expected Launch: 2028 - 2030

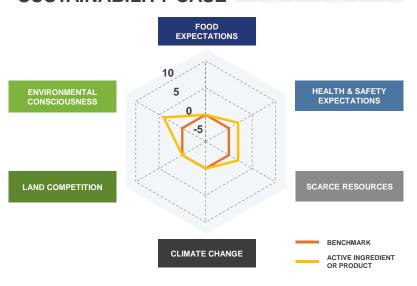


Regions: Asia, Latin America, North America, EMEA

#### **EFFICACY ON CROPS** (Spain)



#### SUSTAINABILITY CASE



Improved profile, especially in Environmental Consciousness, Health & Safety Expectations, and Scarce Resources compared to industry benchmark.

#### TARGET CROPS

Tree Fruits & Nuts | Cereals Sovbeans | Rapeseed | Corn Cotton

#### IP LANDSCAPE

Patent Families

**U.S.** Composition of Matter patent in force into 2034

Other kev patent filings extend beyond 2034

#### **INNOVATION FEATURES AND BENEFITS**

- Unique proprietary chemotype—TRPV chordotonal organ modulator (IRAC Group 9).
- Novel insecticide technology will help close gap in selective piercing-sucking insect control.
- Targets aphids on both high-value specialty crops (vegetables, potatoes, tree fruits & nuts) as well as row crops (cereals, soybeans, cotton, rapeseed, corn).
- Effective resistance management tool farmers desire.

- Potent aphid control insecticide with studies underway to potentially broaden the spectrum of use.
- Mixture opportunities with diamides offer broadened spectrum and/or strengthened aphid performance.
- Mixtures with pyrethroids provide enhanced **spectrum**, knock down and long-lasting aphid protection on broad-acre crops.

#### PROGRESS HIGHLIGHTS

- Progressed to Validation Stage in early 2019, and to Development Stage in Q2 2020.
- Patents received.
- Manufacturing pilot plant campaign completed in 2020.
- Progressed toxicity regulatory studies and initiated metabolism studies.
- Optimized formulation to improve storage stability and handling.

**DEVELOPMENT STAGE GATE STATUS** 

Definition

**VALIDATION** 

Development

Launch

# Insecticide 1—Novel Technology Targets Aphids on High-Value Crops and Row Crops



Supports Integrated Pest Management

## **VALUE PROPOSITION / Benefits Beyond Just Insect Control**

**YIELDS ATTRIBUTES CROP VIGOR** CONTROL' INSECT **PLANT PROTECTION EYOND PEST-VECTORED**  $\overline{\mathbf{m}}$ **DISEASE REDUCTION INSECT CONTROL** 

#### SUPERIOR CROP PROTECTION FROM PEST DAMAGE

Insecticide 1 applications early in the crop cycle and continued crop maintenance programs offers significant opportunity for improved crop yields.

#### IMPROVED CROP GROWTH AND VIGOR

- Good crop establishment
- Earlier physiological maturity

Uniform crop stand

#### SUPERIOR CROP PROTECTION FROM PEST DAMAGE

Rapid cessation of pest feeding and efficacy of Insecticide 1 allows plants to avoid pest direct damage to plants, resulting in excellent plant production.

#### **OUTSTANDING REDUCTIONS IN VECTORED DISEASES**

Application of Insecticide 1 results in rapid cessation of pest feeding and consequently reductions in the ability of pests to transmit disease-causing pathogens into plants.

#### FOUNDATION: EXCELLENT EFFICACY VS TARGET PESTS

- Broad-spectrum control of aphids
- Effective on damaging pest stages
- Rapid cessation of pest feeding
- Effective speed of kill
- Optimum residual control
- Resistance management compatible

# Insecticide 1—Novel Technology Targets Aphids on High-Value Crops and Row Crops



## **TECHNICAL and PERFORMANCE ATTRIBUTES**

Metric	Parameter	Insecticide 1	Competitor	Insecticide 1 Summary
	Efficacy	+++++	+++	Excellent control of piercing-sucking pest targets equal to commercial standards, good control of secondary pests
Biological Performance	Crop Safety	+++++	+++++	Excellent crop safety
	Yield	++++		No specific yield trial data available but known value indicators portend improved yield and quality enhancements
Pest	Mode of Action	+++++	+++++	New mode of action with very few in-class competitors
Resistance	Resistance Status	+++++	+++	Controls resistance pest populations, with no-known cross resistance with existing commercial standards
Management	Resistance Management Fit	+++++	++++	Excellent insect resistance management profile based on the mode of action and pest spectrum fit
	Pollinator Safety	++++	++++	Good safety profile on bees and other pollinators (studies still in progress)
	Beneficial Organisms	++++	+++	Good safety profile on non-target arthropods and other organism's safety profile (studies still in progress)
Regulatory	IPM Compatibility	++++	+++	Excellent fit in pest management programs (studies still in progress)
	Environmental Safety	++++		Low persistence in the environment (studies still in progress)
	Worker Safety	++++	+	Good human safety profile (studies still in progress)
	Pest Spectrum	++++	++++	Broad spectrum control of sucking pests with good potential on secondary pests; no known pest resistance
	Formulations	+++++	+++++	Optimized segregating products for foliar and soil application segments
Overall	Safety Profile	+++++	+++	Environmentally friendly, good profile on non-target organisms and human safety, thus good profile
Summary	Agronomic Fit	+++++	++++	Good fit in grower crop production systems and IPM programs
	Intellectual Property	+++++		Strong patent estate filings with applicable broad claims
	FMC Portfolio Fit	+++++	+	Fills gaps in current insecticides—excellent complement to existing FMC portfolio and mixture opportunities

### **EFFICACY ON APPLES (U.S.)**

Rosy apple aphid control







Rosy apple aphid colonies in curled leaves

GRASS CONTROL RATINGS (MORE + SIGNS IMPLY BETTER PERFORMANCE) FOR PRODUCT AND OTHER HERBICIDES FOR COMPARISON

EXCELLENT (5+)

MODERATE (3+) POOR (1+) NO DATA AVAILABLE

## Fluindapyr—Novel SDHI Fungicide





Expected Launch: 2021 - 2024

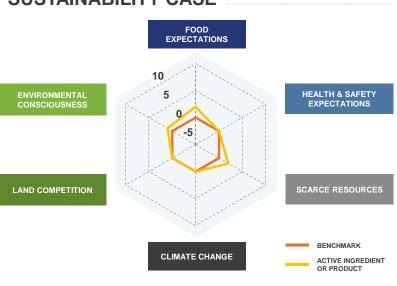


Regions: North America, Latin America, Asia, EMEA

#### **EFFICACY ON CEREALS (France)**



#### SUSTAINABILITY CASE



Improved profile, especially in Food Expectations and Scarce Resources compared to industry benchmark.

#### **TARGET CROPS**

Corn | Cotton | Cereals **Soybeans** Rapeseed Tree Nuts | F&V | Turf

#### IP LANDSCAPE

**Patent Families** 

**U.S.** Composition of Matter patent in force into 2032

Other key patent filings extended beyond

#### INNOVATION FEATURES AND BENEFITS

- Novel FMC global pyrazole carboxamide fungicide.
- Succinate Dehydrogenase Inhibition (SDHI) Mode of Action.
- Broad spectrum activity against a wide range of diseases in row crops, specialty crops and turf.
- Competitive efficacy demonstrated against rust, leaf spots, powdery mildews, and scab.

- Future expansion likely into fruits, vegetables and possibly rice.
- Expect to introduce range of high-performing and unique premix formulations providing growers a choice to protect key crops, yield, and ensure freedom of trade.

#### PROGRESS HIGHLIGHTS

- · Acquired remaining rights from Isagro.
- Completed regulatory submissions in Brazil, UK, Korea, China, Argentina, Paraguay, and Mexico.
- Brazilian demonstration trials completed—awaiting 2021 authority "priority listing."
- Formulation selected for development/submission in Argentina Q4 2021 for wheat and barley.
- Initiated production at Panoli, India.

**DEVELOPMENT STAGE GATE STATUS** 

Definition

Validation

**DEVELOPMENT** 

Launch

## Fluindapyr—Novel SDHI Fungicide



## **TECHNICAL and PERFORMANCE ATTRIBUTES**

Crop Segment*	Fluindapyr Perforn	argets nance Compared to al Standards	Notes
	Asian Soy Rust	Leaf spots	Better than most two-way mixture products
	+++++	+++++	Detter than most two-way mixture products
Soybeans	++++	+++++	
Joybeans	++++	++++	Equal to the market leader in Brazil
	++++	++++	Equal to new 3-way mixture products
	++++	+++++	Equal to new 3-way mixture products
	Septoria	Rusts	2-way mixture
Cereals	++++	++++	2-way mixture
	+++	+++++	2-way mixture
F&V	Walnut blight	Powder mildews	2-way mixture
FOX V	+++++	++++	2-way mixture
Rice	Rice sheath blight	Rice blast	2-way mixture
Turf	Brown patch	Anthracnose	
TUIT	+++++	+++	

#### **EFFICACY ON ASIAN SOY RUST (Brazil)**







GRASS CONTROL RATINGS (MORE + SIGNS IMPLY BETTER PERFORMANCE) FOR PRODUCT AND OTHER HERBICIDES FOR COMPARISON

EXCELLENT (5+) GOOD (4+) AVERAGE (3+) BELOW AVERAGE (2+) POOR (1+)

# Biologicals Offer New Modes of Action and Excellent Sustainability Profiles



	Segment	Main Diseases/	Key Attributes	Regions			
		Pests		Asia	EMEA	Latin America	North America
Biofungicide 1	Soil-Borne Diseases	Pythium Rhizoctonia Fusarium SDS	<ul> <li>Mode of Action: Biofungicide effect through root colonization and production of metabolites</li> <li>Two strains with one as stimulant</li> </ul>	F&V	Row Crops	Row Crops, F&V	Row Crops
Biofungicide 2	Foliar Fungicide	Powdery Mildew Botrytis Leaf Spots	Mode of Action: Biofungicide effect through root colonization and production of metabolites     Potential to differentiate via rotation with synthetics and mixtures	F&V	F&V	F&V	F&V, Nuts
Bioinsecticide 1	Soil-Borne Insects	Corn rootworms Wireworms	<ul> <li>Mode of Action: Bioinsecticide effect through root colonization and repellency of insect to reduce plant damage/loss</li> <li>New Mode of Action enables access to all value segments</li> </ul>	Potatoes, Specialty, Vegetables	Row Crops	Row Crops, F&V	Row Crops
Avodigen™ Bionematicide	Nematicide	Nematodes	<ul> <li>Mode of Action: Bionematicide effect through biofilm formation and plant growth promotion</li> <li>Differentiated formulation at higher concentration in the market that is dispersible in water</li> <li>Two strains with one as stimulant</li> </ul>	F&V, Sugarcane, Cereal	Row Crops, F&V	Row Crops, F&V	Row Crops, F&V, Nuts



Accudo® biostimulant

Launched in South Korea market in 2019

Crop Science Forum & Awards 2020 Online Best New Biological Product WINNER

# Innovating and Investing Beyond the R&D Pipeline — Precision Agriculture and Arc™ Farm Intelligence





FMC Precision Agriculture solutions enable growers and their advisors to operate more effectively and sustainably through the power of data and machine learning

3

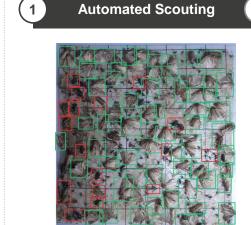
Proprietary mobile platform is a first in the agricultural industry to deliver real-time data that predicts insect pressure one week in advance with more than 90 percent confidence for key insects to help growers protect yields.

For key pests, Arc™ farm intelligence provides pest pressure forecasts based on:

- Aggregated historical data
- Hyper-local weather data
- Real-time regional pest mapping

Among many other benefits, Arc™ farm intelligence can:

- Decrease environmental impact by allowing farmers to spray at the right time to address pest pressure
- Manage infestations before they escalate
- Help delay pest resistance issues through more effective and targeted product application





**Visual Trap Data** 



**Predictive Pest Forecast** 



**Insightful Communication** 

#### **VALUE DRIVERS**

#### SCOUTING EFFICIENCY

More efficient scouting, saving time and reducing resource needs

#### ENHANCED SUSTAINABILITY

Lower input costs, more precise pressure-driven product application

Clearer justification for application

### GROWER ACTIVITY VISIBILITY

Clearer, more direct understanding of field level insights / demand generation

Inventory staging capability

### TECHNICAL CREDIBILITY

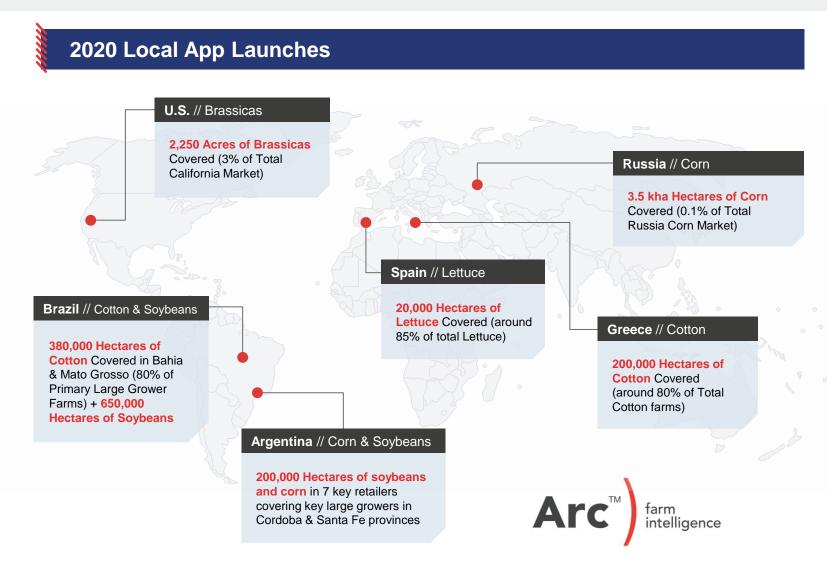
Commercial conversations evolving to be more technical in nature gaining the trust of growers / channel partners

### DIRECT PRODUCT INFLUENCE

Differentiated insights grounded in data and conveyed via efficient digital platform

# **Arc™ Farm Intelligence Expansion**





2020

500+

**ACTIVE USERS** 

3.8 million

**ACRES** 

6

**CROPS** 

5

**PESTS** 

6

**COUNTRIES** 

\$250 million

FMC REVENUE COVERED

#### **2021 EXPANSION**

**TBD** 

ACTIVE USERS

~25 million

**ACRES** 

13

**CROPS** 

21

**PESTS** 

21

**COUNTRIES** 

~\$1 billion

FMC REVENUE COVERED

<sup>\*</sup> FMC revenue attributed to customers/growers utilizing Arc™ farm intelligence.

# Augmenting R&D with New Investments and Collaborations



#### **FMC VENTURES**

**Broadening Access to New Opportunities and Disruptive Technologies** 

ARTIFICIAL INTELLIGENCE FOR DISCOVERY & SYNTHETIC BIO

#### **FOCUS**

- Artificial Intelligence and Machine Learning for discovery and development
- Protein engineering and strain optimization

#### **BENEFITS**

- Accelerate discovery
- Reduce commercialization risk

BIOPESTICIDES

- Living organisms with pesticidal or yield enhancing properties
- Semio-chemicals

- Address regulatory and consumer demands
- Improve resistance management

ROBOTICS & PRECISION AGRICULTURE

- Digital agronomy
- · Detection and diagnostics
- Application

- Improve sustainability
- Increase grower's return on investment

EMERGING BUSINESS MODELS

- Digital marketplaces
- Alternative channels and business models

Capture value at different points in value chain

#### **INVESTMENTS & PARTNERSHIPS**









## **Technology Driven Growth**



- Award-winning pipeline of 35+ new and sustainable molecules that begin to launch in 2021
  - Discovery pipeline features diverse set of synthetic and biological molecules with new modes of action
  - Development pipeline addresses growers' needs for sustainable products in every region and in key crops for challenging pests
- Precision Agriculture investments to digitally enable and enhance FMC's business of providing solutions that satisfy grower needs
- FMC's technical capabilities and efforts broadened through external partnerships and collaborations





## **Assessing the Commercial Opportunity**



IDENTIFY ADDRESSABLE MARKET

- Key market needs
- Grower challenges

VALUE ADDRESSABLE MARKET

- Secondary market data
- Primary research

CALCULATE
PERCENT MARKET
SHARE

- Features, performance and costs
- Market outlook
- · Market growth vs replacement

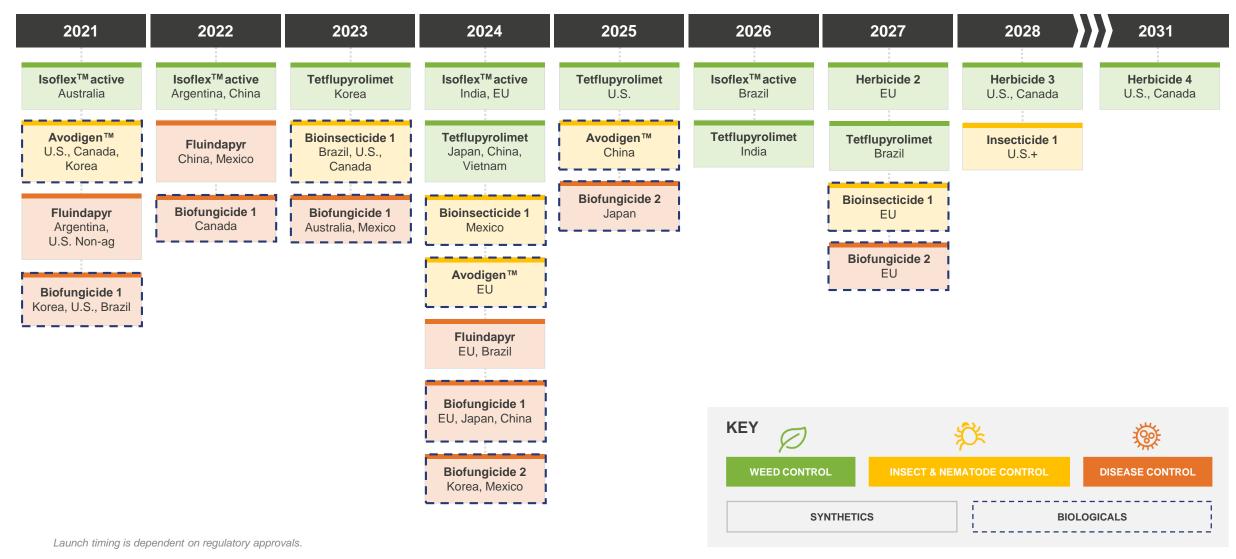
PROJECT SALES

- Forecasted market share
- Forecasts for pricing and volume

- A continuous process as a compound moves through development, and even after commercialization
- Consider the current market value and the historical trend to estimate near and long-term market outlook
- Identify, evaluate, articulate and respond to risks and opportunities throughout the process of developing our market share and sales forecasts
- Opportunity to address market needs and achieve higher sales, particularly for compounds in early stages of development.

# **Development Pipeline** Expected to Generate ~\$2B in Revenue by 2030, with Total Peak Sales Approaching \$3B





## Lucento® Fungicide is a Key Driver of Revenue Growth





- Launched in the U.S. in 2019
- Dual-mode of action bixafen plus FMC's proprietary fungicide flutriafol
- Differentiated solution to a wide range of diseases on corn, soybeans and peanuts
- Important part of FMC's U.S. fungicide portfolio
- Fungicide share growth in corn and soybeans is up
- On track to accomplish \$30M to \$50M revenue target

# **Isoflex™ Active**—Accomplishing Launch Milestones



Global brand name Isoflex™ active ingredient **FIRST QUARTER 2020** developed. Commercial scale production of technical FIRST QUARTER 2020 material began at Panoli, India, site. Active ingredient registration granted by **SECOND QUARTER 2020** Australian regulators. Active ingredient registration application **SECOND QUARTER 2020** submitted to Brazilian authorities. REVIEW UNDERWAY IN THE EU AND UK Active substance registration review. Overwatch® herbicide formulated product **EXPECTED IN COMING WEEKS** approval pending. Initial product launch in Australia. **READY FOR FIRST QUARTER 2021** 





### Isoflex<sup>TM</sup> Active—New Mode of Action Herbicide





Expected Launch: 2021 - 2026

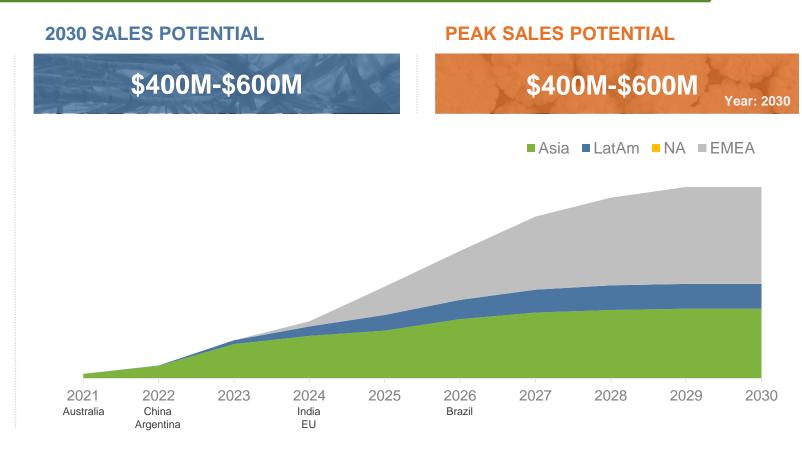


Regions: Asia, Latin America, EMEA

#### INNOVATION FEATURES AND BENEFITS

- Excellent tool for resistance management
- Provides a new rotational product in some markets
- · Launching in over 20 countries
- 2021 launch of Overwatch® herbicide in Australia
- Over 150M Addressable Acres







A New MOA Herbicide for Control of Herbicide-Resistant Grass Weeds

## Isoflex<sup>™</sup> Active—Launch Preparations in Australia



108 8 Hectare Grower Demo

30 Small Plot Replicated Trials
With Retail Partners



5 FMC Technology Sites

1,500 Growers/Agronomists Engaged







# UP TO 12 WEEKS OF WEED CONTROL

Field trial site in Australia.

153 days after application.

# Fluindapyr—Strengthening Our Portfolio With a Novel Fungicide





Expected Launch: 2021 - 2024

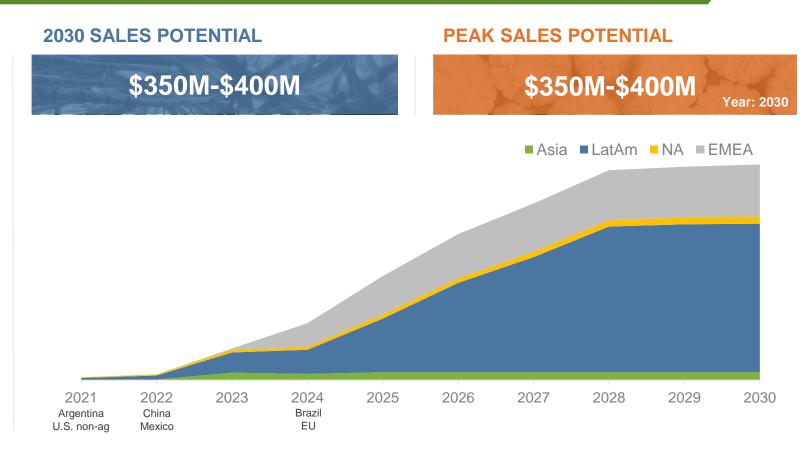


Regions: North America, Latin America, Asia, EMEA

#### INNOVATION FEATURES AND BENEFITS

- Full ownership of fluindapyr and related intellectual property
- Control of pathogens that are resistant to other chemical classes
- Use in row crops, specialty crops and turf
- 30 countries and 20 crops
- Over 400M Addressable Acres







**TARGET** 

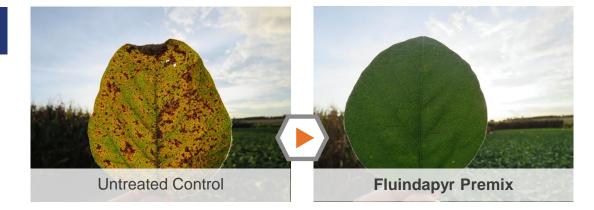
**Provides Broad Spectrum Disease Control Through Advanced Formulations and Customized Solutions** 

# Fluindapyr—Premix Fungicides to Address Growers' Needs and Combat Disease Resistance



#### **ARGENTINA LAUNCH ACTIVITIES**

- ~50 Demo Plots, Field Days and Workshops Conducted
- ~50 Field Demonstrations for Agronomists and Growers Planned
- Participation in Aapresid 2022 Congress (6,000 participants)





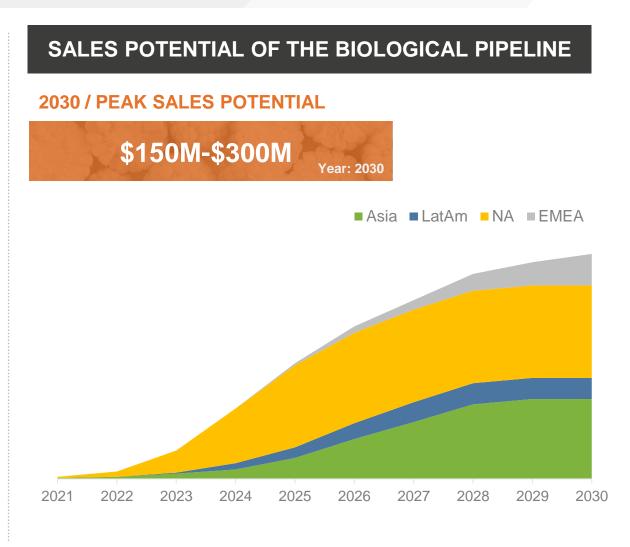




## **Biological Active Ingredients in Development**



#### FOUR NEW BIOLOGICALS AVODIGEN™ 2021 Novel bionematicide protects against nematodes with Asia, EMEA, biostimulant activity and control of soil diseases **North America** 2021 **BIOFUNGICIDE 1** A strain combination for soil diseases that studies show Asia, EMEA, Latin America, North achieves over 5% yield gain America 2023 **BIOINSECTICIDE 1** EMEA, Latin A novel soil-applied Bacillus thuringiensis (Bt) strain that America, North repels soil insects America 2024 **BIOFUNGICIDE 2** Asia, EMEA Latin Targets foliar diseases in the high value fruit & vegetables America, North segment America



### **Tetflupyrolimet**—A New Mode of Action Herbicide





Expected Launch: 2023 - 2027

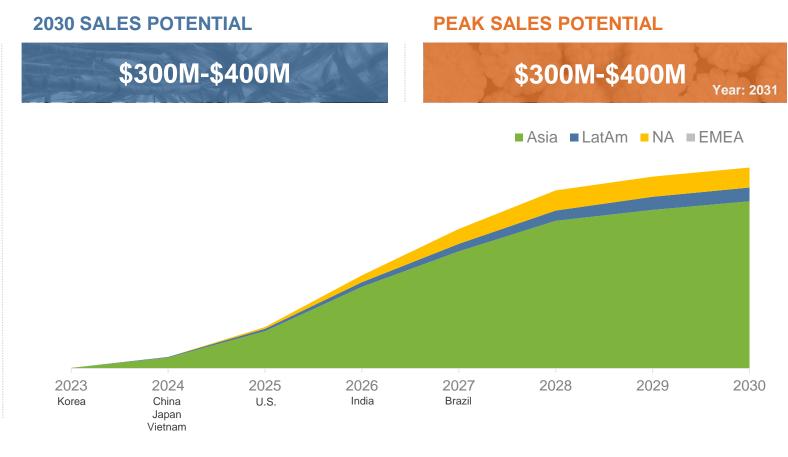


Regions: Asia, Latin America, North America

#### **INNOVATION FEATURES AND BENEFITS**

- First entirely new mode of action herbicide in 3 decades
- Proprietary area of chemistry for FMC
- Outstanding residual control of key grass weeds
- Launching in over 20 countries
- ~200M Addressable Acres







A New MOA Herbicide for Control of Herbicide-Resistant Grass Weeds

### **Herbicide 2—**A New Mode of Action Herbicide for Cereals





**Expected Launch: 2027** 



Regions: EMEA

#### INNOVATION FEATURES AND BENEFITS

- Pre and early post emergence control of broadleaf weeds and some grasses
- Complementary biology to other herbicides
- Potential mixtures with Isoflex™ active
- Biological performance allows additional value capture
- Addressable market is comparable to Isoflex™ active

**TARGET CROPS** 

Cereals (Wheat & Barley)







**New Mode of Action for Resistance Management** 

## Advancing a Compound Through Development



#### **DEVELOPMENT PIPELINE**

**Synthetic** ~7-10 years

Biological ~3-5 years

- Define product offering and potential business case opportunities
- Develop strategy for in-scope country/crop segments
- Develop registration plan and identify key regulatory challenges
- Best GAP
- Initiate sustainability and assessment

- Major markets country and crop segments finalized and registration submitted
- · Initiate launch plans and brand architecture
- Develop supply chain strategy
- Update sustainability and product stewardship assessments

PROGRESS TO DEVELOPMENT PIPELINE

**DEFINITION** 

**VALIDATION** 

**DEVELOPMENT** 

**LAUNCH AND REALIZATION** 

- Optimize final formulations
- Complete critical path regulatory studies
- Complete preliminary market studies and customer focus groups
- Update sustainability and product stewardship assessments

- Obtain registrations
- Establish commercial product supply
- Launch products

# **Herbicide 3—**A New Mode of Action Herbicide for Resistant Broadleaf Weeds





**Expected Launch: 2028** 

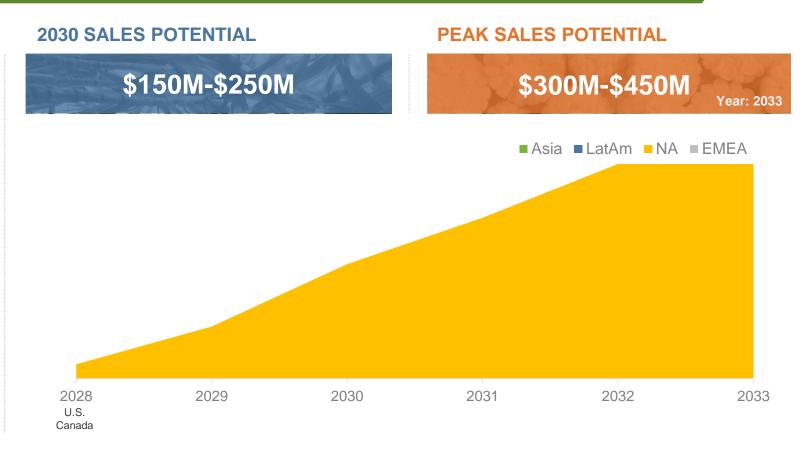


Regions: North America

#### INNOVATION FEATURES AND BENEFITS

- Proprietary area of chemistry for FMC
- Outstanding pre-emergent residual control of key grass weeds
- Initial focus on the U.S. corn & soybean markets
- Possible opportunities in Latin America
- Nearly 100M Addressable Acres







A New MOA Herbicide to Control Herbicide-Resistant Amaranthus in Corn and Soybeans

# **Insecticide 1—**Novel Technology Targets Aphids on High-Value Crops and Row Crops





Expected Launch: 2028 - 2030



Regions: Asia, Latin America, North America, EMEA

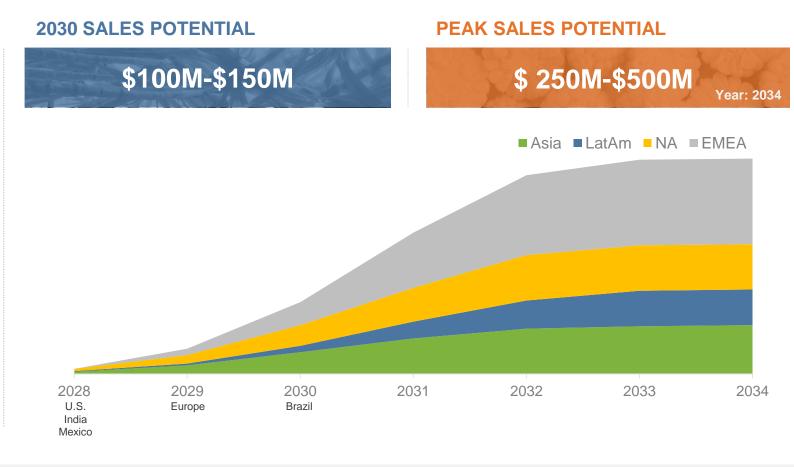
#### INNOVATION FEATURES AND BENEFITS

- Opportunities in all major agricultural countries in all regions
- Outstanding control over the broad spectrum of aphids with no known pest resistance
- Low-dose insecticide has systemic activity that protects the entire plant
- Over 200M Addressable Acres



2020

2034





**Highly Effective Insect Control Product for Important Aphid Pests** 

### **Herbicide 4—**Novel Mode of Action Herbicide





**Expected Launch: 2031** 



Regions: North America

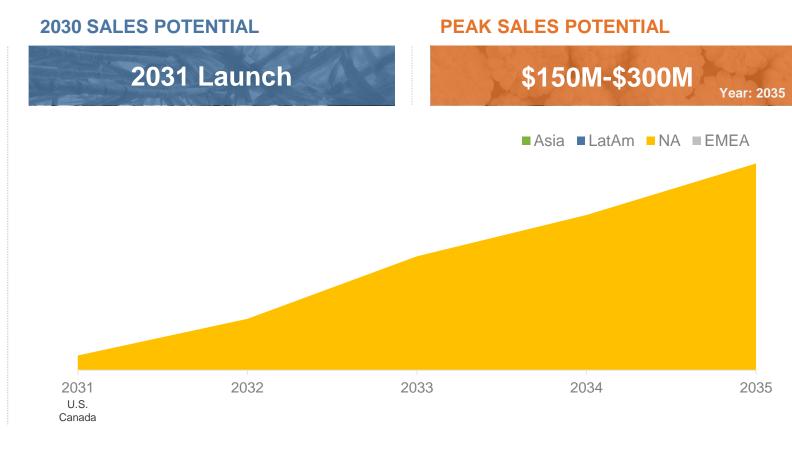
#### INNOVATION FEATURES AND BENEFITS

- · Proprietary mode of action
- · Pre- and post-emergent efficacy on resistant weeds and grasses
- Excellent mixture partner with other pipeline and commercial chemistries
- Over 100M Addressable Acres



2020

2035





**Effective Resistance Management Tool Corn and Soybean Growers Need** 

# **Broadening Our Global Footprint** While Diversifying the Portfolio



	Regions							
Name	Launch Year*	North America	Latin America	Asia	EMEA			
Ø WEED CONTROL								
Isoflex <sup>™</sup> Active	2021		•	•	•			
Herbicide 1 (Tetflupyrolimet)	2023				0			
Herbicide 2	2027							
Herbicide 3	2028	•	0	0	0			
Herbicide 4	2031		0	0				
INSECT & NEMATODE CONTROL								
Insecticide 1	2028	•		•	•			
Avodigen™	2021	•			•			
Bioinsecticide 1	2023	•	•		•			
DISEASE CONTROL								
Fluindapyr	2021	•		•	•			



KEY	
■ REGIONS CURRENTLY IN SCOPE	O AREAS OF EXPLORATION

2021

2024

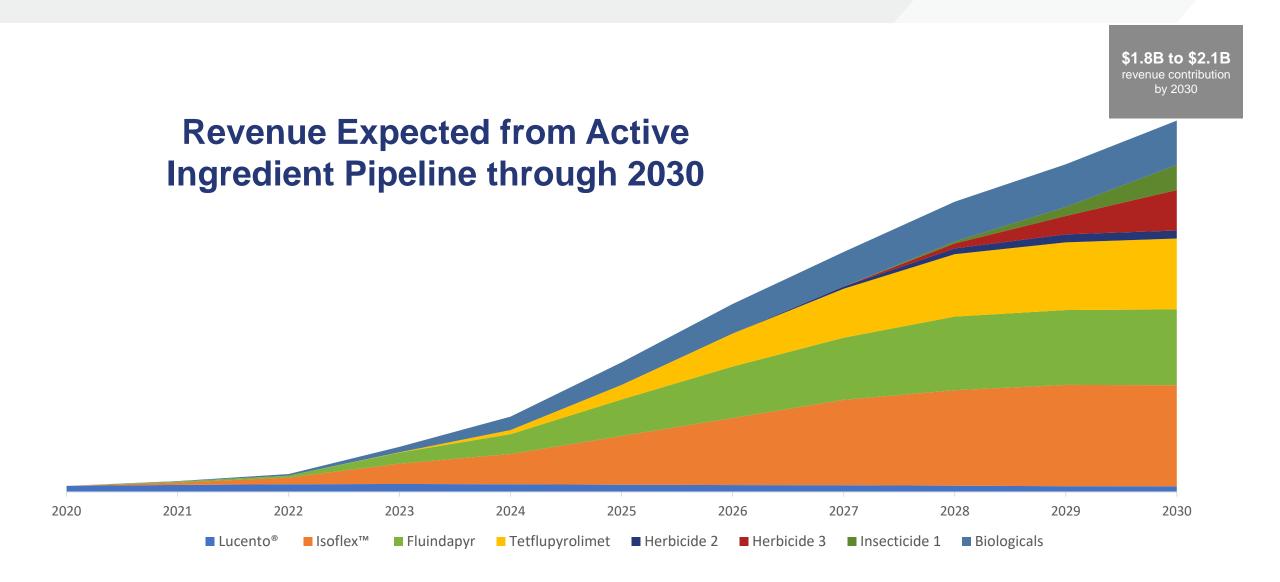
**Biofungicide 1** 

Biofungicide 2

<sup>\*</sup>Launch year is the initial launch – not every geography will be launched in that year. Launch timing is dependent on regulatory approvals.

# Innovation Will Be a Key Contributor to FMC's Growth

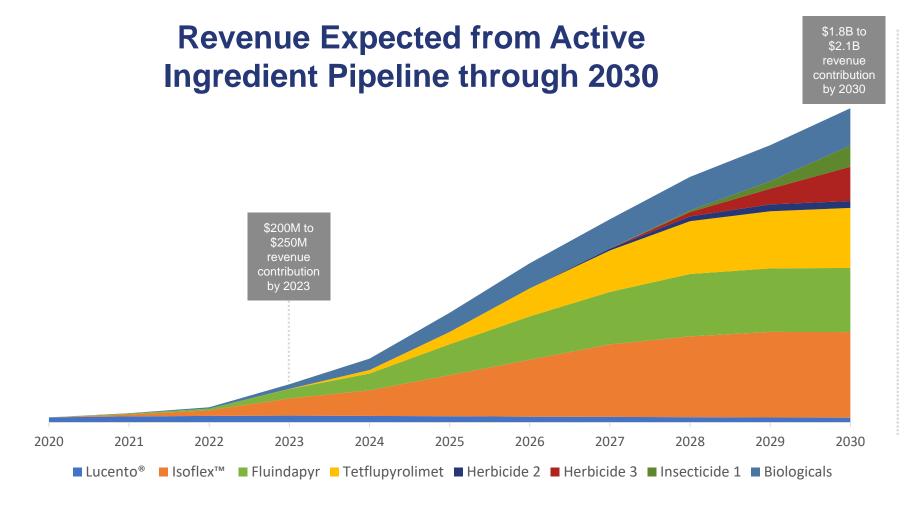






## Innovation Will Be a Key Contributor to FMC's Growth





Near-term new active ingredient introductions provide a boost to growth through 2023

- Isoflex<sup>TM</sup> active
- Fluindapyr fungicide

World-class new active ingredient pipeline materially boosts organic growth through 2030

 \$1.8B to \$2.1B contribution to organic revenue growth by 2030

Very capital efficient growth – less than \$350M in capital investment required to support pipeline through 2030

# Assessing the Attractiveness of Active Ingredient Innovation



Maintain crop and geographic balance

Respond to 'mega trends', e.g. sustainability, regulation

Maintain progress vs. critical path milestones to commercialization



Move at least 1 new Al from Discovery to Development each year

Fund as many "attractive" projects as possible

"Afford to Spend" at targeted adj. EBITDA margins – R&D % of sales of 6.5 – 7.0%

# WHAT MAKES AN "ATTRACTIVE" PROJECT

- Meaningful revenue potential
- Margin accretive to overall margin
- Project IRR > WACC

#### **PORTFOLIO REQUIREMENTS**

Overall IRR>2X WACC and Payback Period <10 years



# **Financial Policies**

## **Balance Sheet** Strength and Targets



#### What is Solid Investment Grade and Why?

- BBB/A-2, Baa2/P-2 or better
- Commercial paper as part of business model

### Average 2.5X Gross Debt / Adj. EBITDA

 We believe consistent with BBB/Baa2 or better, recognizing other factors in our financial profile

#### **SPLIT RATED TODAY**

Moody's: Baa2 and P2 rating

S&P: BBB- and A3

#### **CURRENT LEVERAGE OF ~2.5X**

Expect to <2.5X at 12/31/20

### Utilize incremental debt capacity at target leverage

### ADJ. EBITDA IS GROWING SIGNIFICANTLY

Grow balance sheet with adj. EBITDA growth Additional source of cash for deployment

## **Cash Deployment Policy**



#### **FUND GROWTH**

Fully fund organic growth and opportunistically enhance with modest inorganic investments

#### **DIVIDENDS**

Grow dividends at rate of adj. earnings growth, maintaining 25-35% payout ratio

#### **SHARE REPURCHASE**

Substantial remaining free cash flow returned to shareholders through regular share repurchase

1

2

3



Share repurchases have restarted following our COVID-19 pause

## Delivering on FCF Generation and Deployment

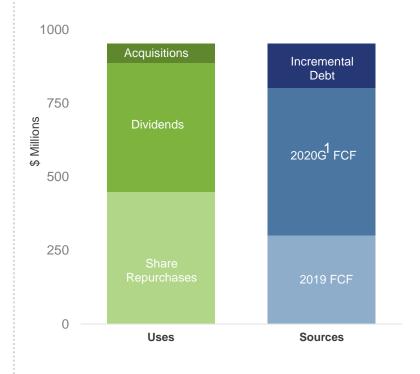


# Continue to expect to generate ~\$3B cumulative FCF

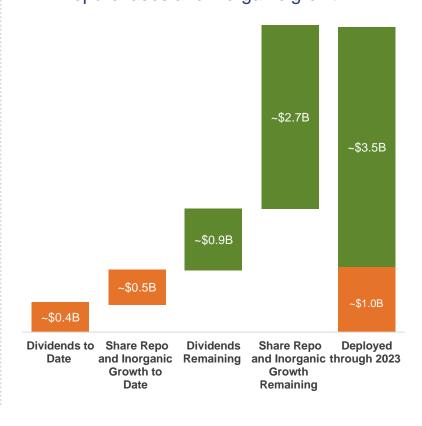
over the 5-year plan horizon



# Deployment in first 2 years balanced across share repurchases and dividends with modest inorganic growth investment



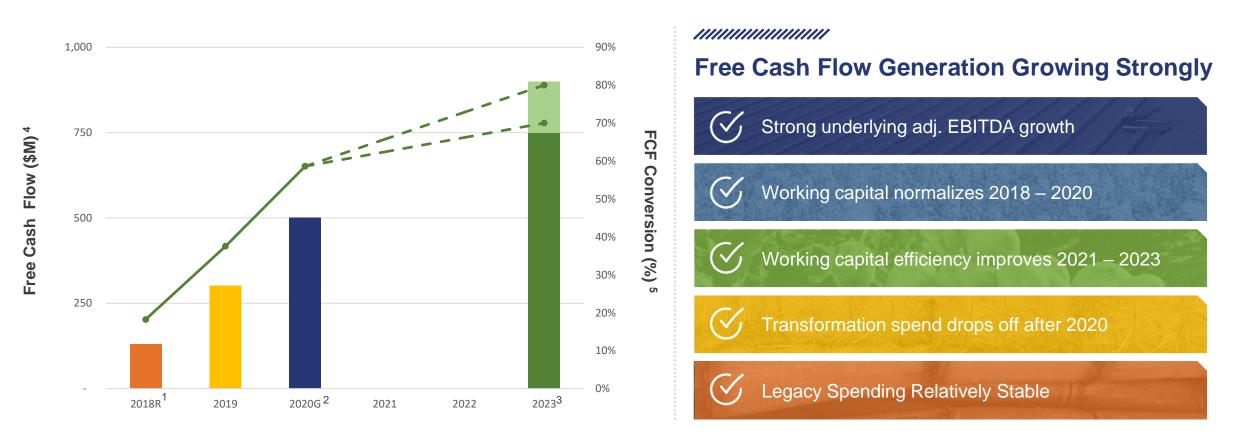
# Deployment over remainder of 5-year plan heavily weighted to share repurchases and inorganic growth



<sup>&</sup>lt;sup>1</sup> Midpoint of 2020 guidance range of \$475-\$525 million

## FCF Generation and Conversion On Long-Range Trend





### Free Cash Conversion Expected to Improve to 70 – 80% of Net Income by 2023

<sup>1</sup> Recast 2018 (2018R) excludes the former Lithium segment 2 Midpoint of 2020 guidance range of \$475 - \$525 million 3 Implied 2023 FCF at targeted 7% - 9% CAGR for EBITDA through 2023 4 Free Cash Flow is a non-GAAP measure. See definition and reconciliation to nearest GAAP term on our website at https://investors.fmc.com 5 FCF Conversion is a non-GAAP measure defined as Free Cash Flow divided by Adjusted Net Income. See definition and reconciliation to nearest GAAP term on our website at https://investors.fmc.com

# FMC Remains a Compelling Investment Opportunity



### **Compelling Expectations Through 2023**

5 – 7 % ORGANIC REVENUE GROWTH

Adj. EPS GROWING FASTER THAN ADJ. EBITDA

**7 – 9 %** ADJ. EBITDA GROWTH

**ROIC**MID-TO-HIGH TEENS

~29% Adj. EBITDA Margin ~300BPS EXPANSION

DEPLOYABLE CASH UP TO \$4.5B

### **Long-Term Factors Supporting Sustained Value Creation**

Sustained strong organic growth

Disciplined capital deployment policy

Strong innovation pipeline with material impact over 5- to 7-year horizon

Sustainable, structurally low tax rate vs. peers

## **Legal Disclosures**



Isoflex<sup>™</sup>, Overwatch<sup>®</sup>, Bixlozone, Accudo<sup>®</sup>, Avodigen<sup>™</sup>, Fluindapyr and Tetflupyrolimet are not registered for sale or use in the United States or other jurisdictions. No offer for sale, sale, or use of any such products is permitted prior to issuance of the required U.S. EPA and state registrations, or other applicable regulatory authority registrations.

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