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Breakout Session Crop Protection

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Crop protection remains an attractive and significant contributor to value creation in agriculture

Market size 2030[1]
billion €

Global challenges and opportunities

Macro

- Growing population
- Growing middle class
- Limited arable land

Consumer

- Growing demand for healthy, sustainable food
- Digitalization of agriculture

Environment

- Climate change
- Increasing weed and pest pressure
- Increasing resistance

Crop protection contribution

- Safeguard yield
- Maintain crop quality
- Efficient use of land

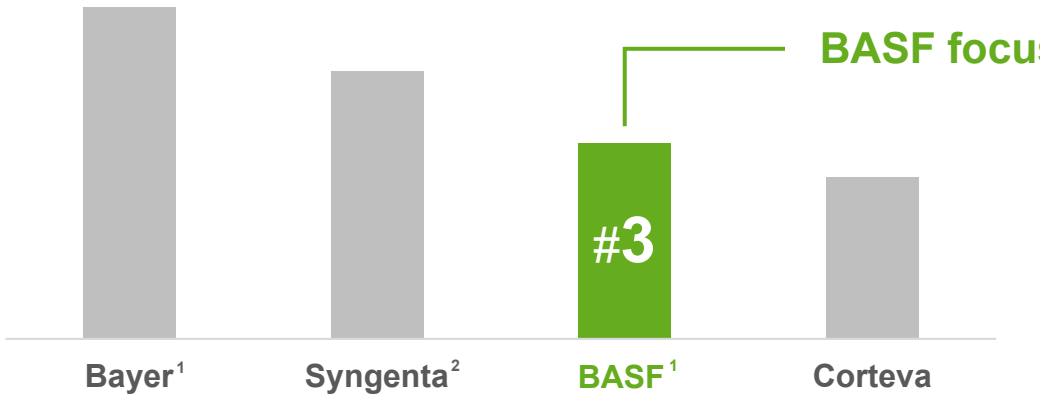
- Effective compounds with sustainable regulatory profiles
- Digital business innovations
- Products ready for digital agriculture

- Risk management
- Control of yield limiting diseases, weeds and pests

[1] Source: BASF estimates and AgbioInvestors/PMD

BASF is a top player in the crop protection market and will drive investments and future growth in selected crop systems

Sales 2018, crop protection
billion €



BASF focus

BASF is one of the leaders in crop protection

- Soybean – cotton – corn farmers
- Wheat – canola – sunflower farmers
- Fruit and vegetables farmers
- Rice farmers

70% of the market

[1] Proforma sales; BASF Agricultural Solutions: legacy plus acquired business (FY) based on internal estimates [2] Part of ChemChina

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A strong pipeline growing even stronger

Main characteristics of BASF's innovation pipeline in crop protection

- Excellent fit with crop systems
- Transformative innovation across platforms enabled by addition of digital and seeds & traits
- Balanced innovation portfolio across all indications
- Consistent investment in BASF's insecticides pipeline is paying off
- A leading seed treatment portfolio
- Strong and well-rooted innovation engine supported by successful acquisitions from 2000 onwards
- BASF's know-how Verbund is an excellent platform for successful innovation integration

Innovation will secure our strong global position – >€4 billion peak sales contribution from crop protection[1]

Crops	In launch	Development (2020 – 2025)	Advanced research (launch after 2025)	Early research
Soybean Cotton Corn	Engenia® Revysol® Inscalis®	Tirexor® Pavecto® Broflanilide Two in development Pavecto® seed treatment Teraxxa™	● ● ●	● ● ● ●
Wheat Canola Sunflower	Revysol® Relenya™	Luximo®, Tirexor® Pavecto® Broflanilide One in development Pavecto® seed treatment Teraxxa™	● ●	● ● ● ●
Fruit and vegetables	Revysol® Inscalis®	Tirexor® Pavecto® Broflanilide One in development Pavecto® seed treatment Teraxxa™	● ● ●	● ● ● ●
Rice	Provisia™ herbicide Revysol® Inscalis®	Luximo® One in development		● ● ● ●

Herbicide **Fungicide** **Insecticide** **Seed treatment**

[1] The innovation pipeline comprises products with a launch date between 2018 and 2028. Projects in “early research” and “life cycle management” are not included.

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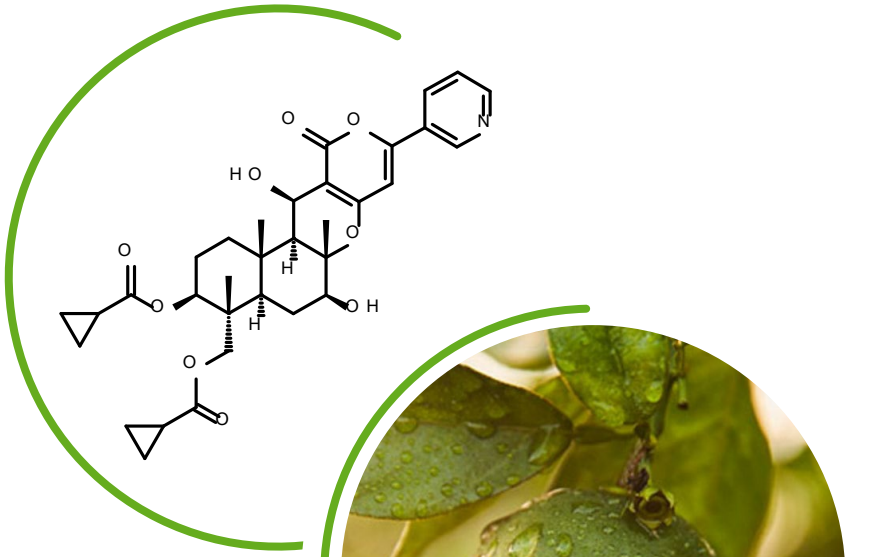
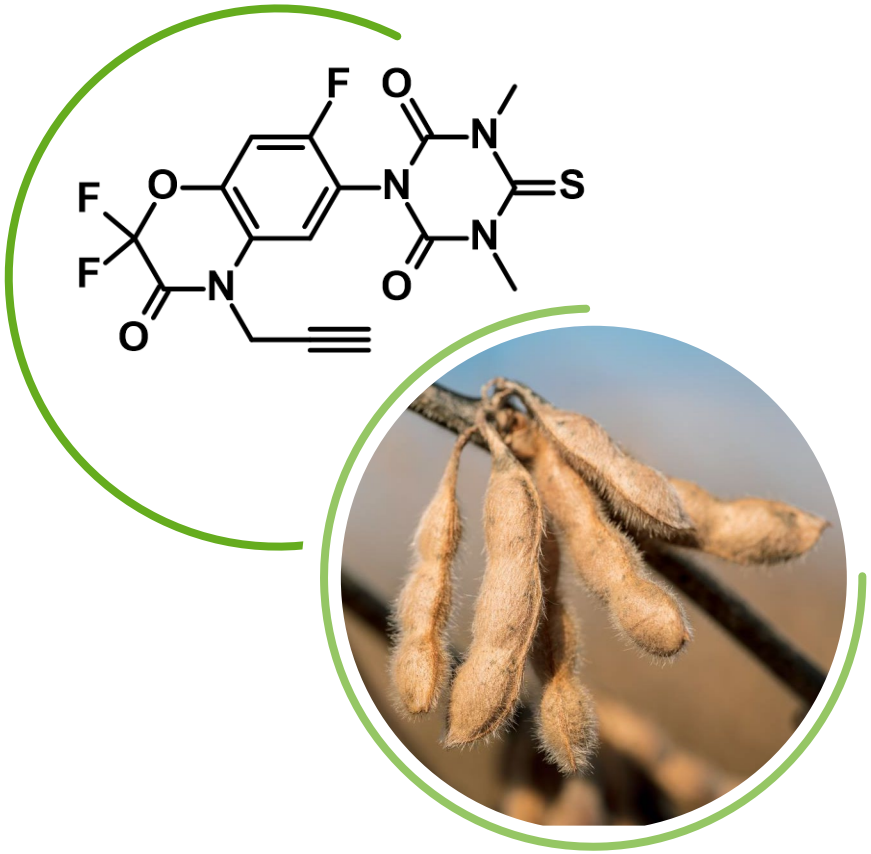
Inscalis® insecticide – new insecticide based on fermentation with favorable environmental profile



New tool for resistance management

- High efficacy at low rates, long residual
- Quick onset of insect feeding cessation leading to reduced virus transmission
- New chemical class, unique mode of action
- Favorable environmental profile with low toxicity to pollinators and beneficial arthropods
- Piercing-sucking pest spectrum
- Wide range of crops

Tirexor® herbicide – adding grass control to PPO inhibitors, delivering excellent broad-spectrum control in burndown



A new tool to control resistant weeds based on PPO inhibition

- Unique control of PPO-resistant weeds for North and South American markets, including tough-to-control pigweed and ragweed
- New mode of action in the Australian cereal market to control two broadly resistant weed species
- Potent mixture partner in burndown and residual applications, fast-acting: foliar effects can occur in as little as one day
- Wide array of crops
- Dossiers submitted in the U.S., Canada, Mexico, Australia
- First market launch expected in Australia 2020, other countries from 2022

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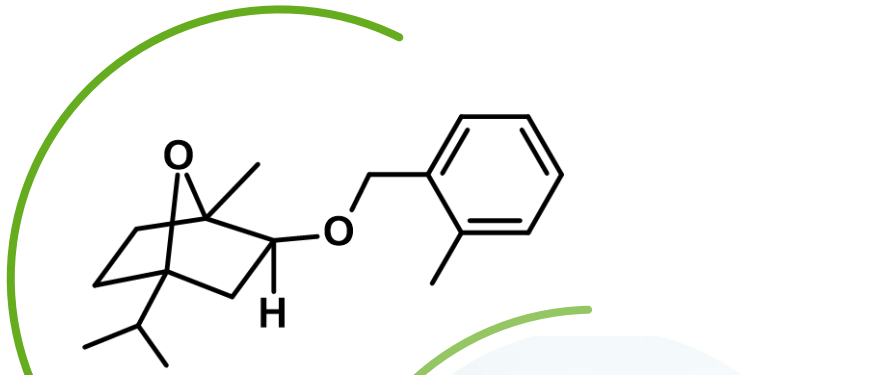
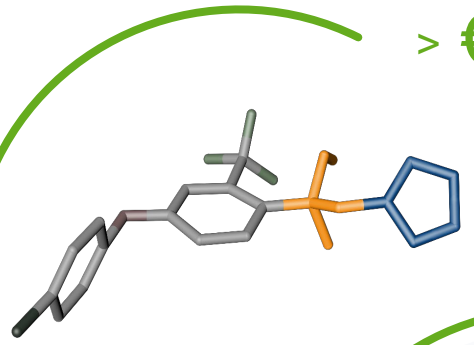
Luximo® herbicide – a much needed new tool from BASF for grass control in cereals



Novel mode of action against grass weeds

- Ensures sustainable wheat production endangered by increasing grass resistance
- Residual control of cool season grasses with selectivity in cereals
- Consistently matches or outperforms market standards solo and in mixtures
- Novel mode of action for resistance management
- Dossiers submitted in EU28 and Australia
- First market launch of Luximo® expected in Australia in 2020

Revysol® fungicide – the new azole benchmark

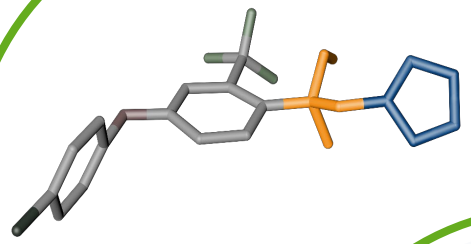


> €1 billion
estimated peak sales potential

Strong foundation for increasing farm profitability and optimizing farm management

- New class of molecule in azole segment
- Molecular design leading to top performance: release properties from inner-leaf reservoir provides a long-lasting protection
- Formulations tailored to maximize outstanding and quick action with strong curative efficacy
- New and essential tool for resistance management
- Broad disease and crop spectrum
- First market introduction of Revysol®-based products in 2019 growing season

Revysol® fungicide – an azole in a class of its own



> €1 billion
estimated peak sales potential

Excellent regulatory profile as a result of BASF's Sustainable Solution Steering

- Sustainability as a key development parameter already in the discovery phase
- ~1,000 times higher target specificity (enzyme inhibition in fungi versus vertebrate cells) – setting a new standard for azoles
- Satisfies highest approval standards within its group of active ingredients
- Passes state-of-the-art endocrine disruptor criteria

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BASF – Finding the right balance for success

BASF will maintain leading position in crop protection with focused innovation

Agricultural industry benchmark for regulatory excellence based on sound science and expertise

Crop protection connected with seeds and digital for even stronger customer focus

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