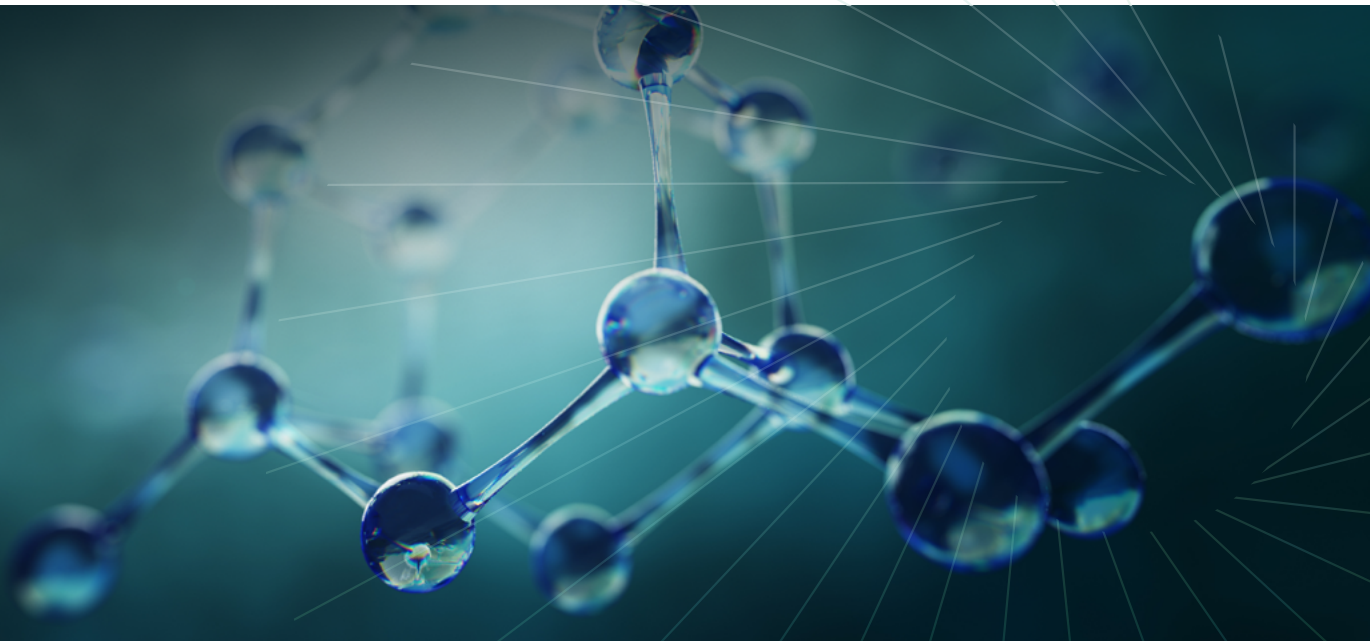


# Crop Science Forum & Awards 2021 Program

Including Fertilizers and Animal Health



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At UPL, we see plant health, soil health, and planet health as one. And through OpenAg™ we are helping growers to improve to reshape their relationship with soil to achieve better crop resilience, higher yields and improve the quality of food crops.



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# Welcome

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Welcome to the Crop Science Forum & Awards 2021, continuing the tradition of the Agrow Awards, the crop science industry's premier annual event recognising excellence in the crop protection and production markets.

The year 2021 marks the 14th instalment of the annual event and this year, in line with the global presence of IHS Markit Agribusiness, we are expanding it to include the fertilizer and animal health industries. The extended programme will take place over the course of two days, ensuring a wider outreach.



**Sanjiv Rana**  
**Editor in Chief – IHS Markit Crop Science**



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# Forum Schedule

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Wednesday November 03

## Crop Science Forum - Session I

- 1:30 – 1:40 Introduction to Crop Science Forum –  
**Sanjiv Rana, Editor-in-Chief, IHS Markit Crop Science**
- 1:40 – 2:00 Global Food Security and The Role of the Inputs Industry –  
**Tom Scott, Agribusiness Consulting, IHS Markit**
- 2:00 – 2:25 Review of The Global Crop Protection and Seeds Market –  
**Darren Stobbart, IHS Markit Crop Science**
- 2:25 – 2:45 Syngenta’s Digital Agriculture Strategy –  
**Greg Meyers, Chief Information and Digital Officer, Syngenta**
- 2:45 – 3:00 Break (15 Min)

## Crop Science Forum - Session II

- 3:00 – 3:20 Xarvio and the Future of Farm Management –  
**Andrew Arome Achille, Commercial Lead APAC and Africa, BASF Digital Farming**
- 3:20 – 3:40 Bosch BASF Smart Farming and Smart Spraying –  
**Silvia Cifre Wibrow, Joint Managing Director, Bosch BASF Smart Farming**
- 3:40 – 4:00 Autonomous Weeder: Laser Weeding Technology in Precision Ag –  
**John Mey, VP of Product, Carbon Robotics**
- 4:00 – 4:15 Bee Vectoring: Natural Precision Agriculture –  
**Ashish Malik, Chief Executive Officer, BVT**
- 4:15 – 4:35 Using AI and Digitized Agronomic Insight to Support Crop Protection Decisions –  
**Sara Sterling, Director of Precision Agriculture, FMC Corporation**
- 4:35 – 4:45 Break (10 Min)

## Crop Science Forum Session III and Crop Science Awards 2021

- 4:45 – 4:55 Bayer and its Approach to Sustainability –  
**Eduardo Brito Bastos, Latin America Sustainability Director, Bayer CropScience**
- 4:55 – 5:15 BASF’s Targets for Boosting Sustainable Agriculture –  
**Dirk Voeste, Senior Vice-President for Regulatory, Sustainability and Public Affairs,  
BASF Agricultural Solutions**

## Forum Schedule

- 5:15 – 5:30 Soil Health: A Healthier Planet from the Ground Up –  
Jonatas Bredow Alves, Global Portfolio Head, Soil and Seed Health, UPL
- 5:30 – 6:05 Crop Science Awards

Thursday November 04

### Fertilizer Forum Session and Fertilizer Awards 2021

- 1:00 – 1:25 Fertilizer Market Outlook –  
Allan Pickett, Head of Analysis, IHS Markit Fertecon
- 1:25 – 1:55 Sustainability and Fertilizers –  
Jacob Hansen, Director General, Fertilizers Europe
- 1:55 – 2:45 New Technologies and Fertilizers: Panel Discussion on Green Fertilizers –  
Tobias Birwe, Sales Director, Fertilizer and Methanol, Thyssenkrupp and  
Alberto Persona, Principal Analyst Fertilizers, IHS Markit Fertecon
- 2:45 – 3:35 New Technologies and Fertilizers: Panel Discussion on How Satellite Technologies  
Could Impact Fertilizer Application –  
Dr. David Calvert, Director, iFormulate Limited and Dr. Keith Shepherd, Head of Diagnostics and  
Decision Science, Innovative Solutions for Decision Agriculture (iSDA)
- 3:35 – 3:45 IHS Markit Fertecon Fertilizer Awards

### Animal Health Forum Session and Animal Health Awards 2021

- 3:45 – 3:50 Break (5 Min)
- 3:50 – 4:15 Animal Health Market Introduction –  
Joseph Harvey, Head of Animal Health, IHS Markit  
Trends and Examples of Disruptions in Animal Health –  
Matthias Hofer, Managing Partner and Juerg Baggenstoss, Partner, Stonehaven Consulting
- 4:15 – 4:30 Break (15 Min)
- 4:30 – 4:40 Risk and Reward: Shared Product Development –  
Dr. Edward McGruder, Global Head of Research, Development and Innovation (RD&I) Argenta
- 4:40 – 5:15 Animal Health Awards

# Crop Science



## Agribusiness

Market consolidation, increasing regulation and sustainability are creating significant change for crop protection and seed companies. Shape your commercial strategy using our proprietary data, in-depth market analysis and long-term forecasts.

### AREAS OF COVERAGE:

- **Pesticides** - conventional & biological - fungicides, insecticides, herbicides, PGRs and nematicides
- **Seed / GM Crops** - input and output traits and seed treatments
- **Commercial** - financial information, M&A, regulation and people
- **Emerging Areas** - Digital/ Precision agriculture
- **Agrochemicals** and seed industry primary datapoints: **volume, value and area**
- Analysis by **crop or region, active ingredient, brand or manufacturer**

### YOUR WORKFLOW, OUR CAPABILITIES

#### MARKET INTELLIGENCE

It can be difficult to predict the impact of market developments and gain a definitive view of the industry. Our robust global market data and long-term forecasts provide this, allowing you to make informed, data-driven decisions, mitigate risk, and implement effective strategy changes.

#### PRODUCT DEVELOPMENT

Pressure to innovate, identify licensing opportunities and develop new compounds can be mitigated by tracking competitor R&D activities, analyzing patent information, and aligning development to emerging areas with the greatest impact to your business.

#### REGULATORY

Tracking the latest legal and policy developments across multiple authorities can be time consuming. Stay abreast of regulatory changes and react with confidence utilising our news and market insight, special reports, and consultancy services.

- **News** covering daily and weekly market developments, key regulatory updates, and product development across the industry
- **Market Analysis & Forecasting** monthly research reports plus annual forecasts of crops, companies, country markets, products and research
- **Market and Product Data** published annually providing in-depth quantitative data on the global crop protection and seed markets, and a comprehensive database with a unique focus on innovation in patent development
- **Special Reports** published throughout the year, providing critical updates on regulations, products and technologies and providing insight into emerging sectors and trends

For more information visit <https://ihsmarkit.com/industry/agribusiness.html>

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## Best R&D Pipeline

This award recognises the critical importance of research and development to the industry. The winner will have what the judges deem to be the most promising batch of new active ingredients and/or crop protection biotechnology traits in R&D. The finalists are:

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**Bayer's Crop Science Division** highlights its R&D investment of €2 billion annually, delivering innovation across seeds and traits, crop protection and digital agriculture. In 2020, Bayer advanced eight new crop protection active ingredients (including two herbicides, four fungicides, and two insecticides), with about ten ais in the current pipeline. The company estimates its pipeline to have an estimated peak sales value of up to €30 billion.

**Corteva Agriscience** boasts a pipeline comprising new crop protection ais, seed and trait technologies, and diagnostic and digital tools. Apart from an array of late development stage products being launched or ready for launch over the next few years, the company says that the early discovery to mid-development stage lineup includes approximately 20 candidates evenly distributed across weed, insect and plant disease management, as well as seed treatment segments.

**Futureco Bioscience** has been researching and developing products based on natural extracts and microbial agents with biostimulant or biocontrol activity. Its pipeline works with a mix of candidates at different stages of development – from potential strains and metabolites candidates, to developed and formulated prototypes ready for registration (including three bionematicides and one biofungicide/bactericide), or in the registration phase (one biofungicide/bactericide).

## Best New Crop Protection Product or Trait

This award recognises the most important new crop protection active ingredient or trait launched since January 1st 2019. The award is open to nominations for agrochemical, agbiotech and biopesticide products. The finalists are:

**Bayer's Crop Science Division** presents its genetically modified XtendFlex soybeans as the industry's first triple-stacked soybean trait with tolerance to dicamba, glyphosate and glufosinate. XtendFlex soybeans, debuted in 2021, represent Bayer's second major product launch in soybeans in the last five years. With tolerance to three herbicides, farmers gain greater flexibility – pre-emergence or post-emergence – in managing weeds, such as waterhemp (*Amaranthus* spp), Palmer amaranth (*Amaranthus palmeri*) and marehail (*Erigeron canadensis*).

Brazilian company **Biotrop's** biofungicide, Bombardeiro, is based on three species of *Bacillus* bacteria (*Bacillus subtilis*, *B. pumilus* and *B. velezensis*). The company points to its effectiveness in crop protection by using different action mechanisms, thereby reducing the occurrence and severity of diseases. Biotrop says that the product's benefits go beyond protection against the principal fungal diseases, including *Cercospora kikuchii*, *Septoria glycines* and *Corynespora cassiicola*, by also promoting plant growth.

**Corteva Agriscience's** “naturally-derived” fungicide, Inatreq (trade-mark name of fenpicoxamid), combats key diseases in cereals (*Zymoseptoria tritici*) and bananas (*Mycosphaerella fijiensis*). A fungicidal natural compound, UK-2A, is synthetically modified to produce Inatreq. In the presence of fungi, Inatreq converts back to UK-2A. Inatreq is the first member of a new class of fungicides (picolinamides) providing the first new target site of action in wheat and bananas in 15 years.

**Corteva Agriscience's** Pioneer brand Qrome products deliver optimised packages of top-tier genetics, traits, and seed treatments for higher productivity. Qrome is a “triple stack” product providing trait-enabled protection to above-ground (Lepidopteran) and below-ground (Coleopteran) insects, and herbicide tolerance to glyphosate and glufosinate. Corteva claims impressive yield advantages of Qrome products over competitive technologies. In 2020, its first year of large volume availability, 7.7 bushel/acre yield advantages were recorded.

**Schelkovo Agrohim** introduces Mysteria as a “highly efficient” micro-emulsion fungicide for the protection of soybeans, sunflowers and sugar beet against a range of diseases. It contains three ais from two potent chemical classes, strobilurins and triazoles. The synergism and mutually reinforcing effects of pyraclostrobin, tebuconazole and difenoconazole, ensure a strong protective action, quick curative effect and efficient elimination of a broad range of phytopathogens.

**UPL** presents the insecticide, Blendex (bifenthrin), as an innovative way to control the pests, *Naupactus xanthographus* and *N. cervinus*. The company points out that bifenthrin has wide tolerances in export markets. Blendex is spread on a plastic band that is fixed around the trunk, where the insects must walk towards the top of the tree. This new tool is a sustainable solution for producers as it does not have contact with the fruit, avoiding residues.



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## Best Formulation Innovation

This award recognises the most significant innovation in the formulation of agrochemical or biological products that could lead to improved product efficacy through enhanced delivery or targeting, improved user safety, or reduced environmental impact. The finalists are:

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**ADAMA's** proprietary Asorbital formulation technology combines a unique mix of solvents and a built-in adjuvant to create a new carrier technology that increases the efficacy of prothioconazole-based fungicides, improves crop yields and opens the way to reduce environmental impact. The formulation enhances performance of the ai by improving its penetration into the plant and driving very fast systemic movement through the plant.

Spanish company **Atens** presents a formulation that can substantially help to rationalise the use of agriculture inputs while enhancing soil biodiversity and impacting the sustainability of agroecosystems. It opens the doors to a more targeted bacteria identification process using high-end technology, resulting in a new portfolio of highly efficient products to solve the major concerns that face agriculture. Atens launched the first product based on the technology, Bactrium, in March 2021 in Spain.

**Biotrop** presents a biological product based on the biosynthesis and stabilisation of indoleacetic acid (IAA) for agricultural application. IAA is a phytohormone with pronounced effect on plant growth and increases crop yield. Within this formulation, IAA is obtained through biological pathways. This

eliminates the need for synthetic sources, making it an “ecofriendly” technology. The formulation results in increased photostability of IAA.

**FMC's** Vantacor insect control is a new aqueous formulation of Rynaxypyr (trade-mark name of chlorantraniliprole). Its proprietary suspension concentration technology provides improved handling and mixing characteristics. The high formulation strength casts a significant positive impact on the environment through a reduced amount of applied formulation inert ingredients, lower water usage, and decreased package size and number of containers, leading to a reduction in transport, storage, and waste.

**Schelkovo Agrohim** claims a scientific breakthrough in seed treatment technology through Protego Max (prothioconazole + pyraclostrobin + tebuconazole), its “most advanced” microemulsion formulation. The working solution in the micro-emulsion consists of nanoparticles. That enables the fastest and deepest possible penetration of the product into seeds through microcapillaries, reaching all infection sites, including latent ones. The microemulsion ensures high performance due to the homogeneity and stability of the working liquid.

## Best New Biological Product (Biopesticide)

This award recognises the best new crop protection product derived from a naturally occurring organism. The winning product will not only be effective but also formulated in a way that is acceptable to users and distributors. The finalists are:

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French company **Agrauxine by Lesaffre's** Romeo SC is the first micro-organism-based product registered for Asian soybean rust (*Phakopsora pachyrhizi*) in Brazil, where resistance issues are prevalent. The active ingredient, Cerevisane, is an elicitor, acting like a vaccine and favouring the soybean immune system. The preventive fungicide provides high compatibility with chemicals and biological products. Its 2020 pre-launch has proved a huge success.

Brazilian business **Biotrops'** Bombardeiro is a multi-site biofungicide with an exclusive low-application liquid formulation that protects fungicide action. It is aimed at the soybean market and particularly end of cycle diseases. With shock and residual effect, it promotes growth, induces plant resistance and aids in the management of resistance to fungicides.

**UPL** presents Argos as the first post-harvest biocontrol that is derived exclusively from orange oil. It takes an essential oil extracted through vacuum distillation of sweet oranges, D-limonene. The hot or cold fogging application product provides contact mode of action on early germination, drying the tissues and leading to a loss of cell liquidity and fast and irreversible dehydration. It inhibits germination, extending post-harvest quality while controlling sprouting in stored potatoes.

US biopesticide company **Vestaron's** bioinsecticide, Spear, is the first novel neuromuscular mode of action on the market since 2007. The Spear family of products targets smaller, soft-bodied insects such as aphids, mites, thrips and whiteflies. The insecticidal peptide exceeds desired product safety profiles. It has already generated market share and revenue traction within the first full year of commercialisation.

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## Best New Biological Product (Biostimulant)

This award recognises the best new crop enhancement product derived from a naturally occurring organism. The winning product will not only be effective but also formulated in a way that is acceptable to users and distributors. The finalists are:

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Spanish business **Atens'** Bactrium can substantially help rationalise the use of inputs while enhancing soil biodiversity. The company selected two strains of *Bacillus megaterium*, MHBM06 and MHBM77, which in association with mycorrhiza facilitate and stimulate mycorrhization. Bactrium's bacteria colonise soil and the interaction between the plant, micro-organisms and soil begins, leading to an exchange of signals and nutrients. That results in improvements in productivity and reduction of fertilizers.

Brazilian business **Biotrop** offers Stimutrop based on the biosynthesis and stabilisation of indole acetic acid (IAA) for agricultural application. The IAA phytohormone has a pronounced effect on plant growth. The singularity of the formulation delivers IAA with increased photostability. In field conditions, light reduces up to 90% of IAA concentration allowing the developed process and formulation to overcome photodegradation – the impediment to large-scale use of bioproducts containing IAA.

US business **Locus Agricultural Solutions** has entered a non-GMO, yeast-based microbial soil amendment, Pantego. It unlocks phosphorus-mobilising features, boosting crop performance. Pantego is part of a line of soil technologies that accelerate carbon sequestration. The micro-organism provides superior results in solubilising bound phosphorus and making it available throughout the growing season, with the added flexibility for use in cooler temperature soils and the potential to increase on-farm ROI by 2-3x.

Italian company **Valagro** offers to improve water use efficiency with its technology, Talete. The biostimulant is composed of biomolecules developed through Valagro's proprietary GeaPower technology. It acts directly on the plant physiology, helping crops increase crop water production be the water source scarce or adequate volume, permanent or temporary. Valagro is a subsidiary of Syngenta Crop Protection.

## Best Innovation in Digital Farming Technology

This award encompasses developments in farm management through the use of digital and information technology. The finalists are:

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Brazilian business **Biotrop** has developed an algorithm that uses high-resolution drone imagery to evaluate critical parameters in small-sized experimental plots. The company explains that its inputs are a multi-band raster with high spatial resolution and shapefiles the parcels' boundaries, while the output consists of a "Vigor analysis" and classification of features of interest. The innovation provides an alternative to on-site evaluations through technologies such as remote sensing.

**FMC's** entry into the category involves its farm intelligence platform, Arc, which the company claims is the first mobile solution to predict weekly pest pressures with up to 90% accuracy. The app leverages predictive modelling based on real-time data from in-field sensors. Arc is available in select markets, with FMC highlighting that the platform offers growers and advisers the clearest view of emerging hotspots.

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## Best Precision Application Technology Innovation

This award applies to the development of agrochemical application technology to improve the precision or safety of pesticide applications. The types of technologies could include precision spraying systems, drones, robotic weeders and applicators, and sensors to detect the right conditions for application.

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**Bee Vectoring Technology** has developed an innovative system that uses commercial bees to deliver crop protection products, bypassing the issues inherent to conventional application methods. The system is simple, effective, and sustainable. The bees pick up trace amounts of product as they leave the hive to forage and carry it to blooms, protecting the crop as they pollinate. The patented system contains multiple levels of technology that enable successful crop protection.

**FMC's PrecisionPac** is a custom metering and blending machine designed to precisely meter dry formulated herbicides in prescriptive combinations and based on specific weed control needs in wheat and other cereal crops and fallow acres. PrecisionPac removes the necessity of growers creating tank mix blends on their farms from several individually formulated and packaged products, and calculating rates and mix ratios to measure each component individually.



## Best Industry Collaboration

This award recognises a successful partnership between two companies in the crop protection or plant biotechnology arena. It could be an R&D collaboration, a licensing agreement, a joint venture, a manufacturing or formulation arrangement, or a sales, marketing or distribution deal. The finalists are:

The 2019 deal between Franco-German joint venture **Genective** and US company **AgBiome** sought to accelerate discovery and commercialisation of Lepidopteran and Coleopteran control traits with unique modes of action. The partnership leverages Genective's global network of parent companies and AgBiome's leadership in discovery and development technology. It has delivered nine modes of action against key pests and is on track to deliver a breakthrough in seeds.

New Zealand business **AbacusBio** and **Bayer** have partnered to accelerate Bayer's Global Crop Breeding programme, utilising AbacusBio's expertise in prioritisation and valuation of breeding attributes. Optimal attribute prioritisation facilitates a unified digital pipeline resulting in better advancement and improved resource allocation that better delivers to grower and consumer needs. This collaboration represents a new era in plant breeding – finding plants that answer environmental and market demands.

Brazilian businesses **Biotrop** and **Orion** have agreed an “unprecedented” partnership. Biotrop develops biological agriculture products while Orion is a major developer of equipment for in-furrow applications. They have teamed up to provide growers with greater efficiency in the application of biological products and increase the productivity of crops.

**FMC** and Danish company **Novozymes** are collaborating to discover unique solutions to address pest management and resistance. They are to research, co-develop and commercialise relatively untapped biological enzyme-based crop protection solutions for the insecticide and fungicide markets. The technology will provide high performance and stability levels at a lower cost target for row crop growers seeking sustainable solutions with new modes of action to combat hard-to-control diseases and pests.

Japanese business **Nippon Soda** and **Syngenta** teamed up in 2013 to develop a novel solution for the control of Pythium damping off. The strategic partnership led to the successful registration of the fungicide, Vayantis (trade-mark name of picarbutrazox), against the disease in the US and Canada in 2021. It is the first broad spectrum seed treatment product to be launched in more than 40 years to specifically target *Pythium* spp and *Phytophthora* spp.

**UPL** is partnering with technology firm **AgBiTech** and African research groups in five countries to test, scale and distribute Spodoptera frugiperda multiple nucleopolyhedrovirus-based bioinsecticide, Fawligen. It is the first biological tool designed solely to combat the rapid spread of fall army worms (*Spodoptera frugiperda*), costing African farmers \$5 billion a year, while leaving the beneficial fauna unharmed. The research groups include CABI, KALRO, IASCO, ZARI and CSIR-CRI.

## Best Stewardship Programme

The Best Stewardship Programme award recognises an outstanding scheme for managing agrochemical or agbiotech products in the marketplace in a sustainable way. The finalists are:

The **Bayer** Safe Use Ambassador programme is an innovative multi-stakeholder platform spreading the message of safe use of pesticides to millions of farmers and to society. The programme's core is the collaboration with universities to train students as "ambassadors" on safe use. The multi-sector collaboration involving agricultural administration, public health, agribusiness and academia and the students' role as future key influencers sows the seed of safety in the society.

Indian company **Coromandel International's** unique initiative in India, covering safe and responsible pesticide use, involves the agricultural university ecosystem of management, scientists, students, and extension networks to reach out to farmers. The programme has reached out to four top universities in the country and is contacting to another two. More than 1,000 farmers, 900 students, teaching and research staff and management have been a part of this national programme.

**Corteva Agriscience's** Partners in Custody stewardship strategy, part of the Red de Custodia stewardship network, has been developed and implemented for distributors of Corteva's crop protection products in Colombia. Its central objective is to train partners in good storage practices, emergency management, and the knowledge and application of regulations for the operation of their businesses. Through training and inspections, Corteva has reached more than 800 collaborators over four years.

Following the 2018 infestations of fall armyworms (*Spodoptera frugiperda*), **FMC** rapidly took the initiative to build scientific and operational capacity in India to manage the pests through a stewardship programme called Project SAFFAL (Safeguarding Agriculture & Farmers against Fall Armyworm). The programme focused on balancing chemical and non-chemical control measures, controlling the infestation's spread. The public-private partnership is recognised as a grassroots-upwards effort, educating more than 300,000 farmers and 450 retailers.

Aplique Bien is a **UPL** Mexico stewardship programme. It supports farmers throughout the country by promoting user safety and effective agrochemical applications. The programme trains people in GAP and calibration of spraying equipment and dosages of pesticides with technical support, improving crop quality and contributing to environmental protection and food safety. The training is provided to farmers free of charge. More than 40,000 people have been trained.

**UPL** co-ordinated a stewardship programme in seven south Asian countries in the first two weeks of June, 2021. The programme aimed to educate users on the right choice of reliable products, safe use, effective application, right storage of appliances, use of protective gear, and safe disposal of used packages. At least 3,600 farmers and dealers engaged offline. Meanwhile, the online programme was attended by over 57,000 viewers live on the Facebook page of UPL Vietnam alone.

## Best Marketing Campaign

Sponsored by:



This award is designed to recognise creative excellence in the marketing and advertising of crop protection products and/or services. This could include social media campaigns, advertising campaigns, promotional marketing, sponsorship and/or design. They can be campaigns that used either a single or a range of combination of media, technologies and/or platforms.

Brazilian business **Biotrop** set afoot a marketing campaign, dubbed Biotropize, to increase brand awareness. The company highlights that its efforts resulted in enhanced brand awareness, captured new customers, and improved its connection with users of biological products. The campaign targeted farmers without regular internet access, with the company noting that its programme has impacted over 2 million growers in the country.

**FMC**'s campaign to "See things differently" with its herbicide, Overwatch (bixlozone – trade-marked as Isoflex), sought to achieve large-scale brand recognition from pre-registration to product launch. It focused on the "signature" effect of Overwatch on annual ryegrass (*Lolium rigidum*) – turning the weed magenta. The exercise leveraged print, broadcast and social media, with FMC claiming that the campaign has helped it exceed sales targets by 140%.

**Syngenta**'s entry involves a "global effort" to pioneer a digital only approach to product introductions. The company implemented this approach for the registrations of its insecticide, Elestal Neo (spiropidion), in Paraguay and Guatemala. Syngenta highlights that its campaign is based on "deep insights" into grower behaviour in both markets and has led to "record" engagement levels. The outreach helped the company meet its sales targets in both geographies.

In Argentina, **UPL** rolled out an exercise to highlight the company's activities and its OpenAg purpose. The programme leverages search engine ads, social networks and digital agricultural media. UPL notes that one of the "peculiarities" of the campaign is its representation by farmers, company staff, distributors, advisors and consumers. The campaign has reached some 4 million people in four months since its May 2021 inception.

**UPL**'s second entry involves a programme in India focusing on its herbicide, Sweep Power (*glufosinate-ammonium*). The campaign seeks to position the product as a safe and alternative non-selective herbicide, with UPL unveiling a superhero mascot to promote the offering. As part of the outreach, the company premiered Sweep Power on social media, besides popularising it through newspapers ads, farmer meetings, and connecting with the rural community through local festivities.

Sumitomo Chemical's US-based biological crop protection products business, **Valent BioSciences**, tossed its hat into the ring with a three-year integrated global marketing initiative, the DiPel 50th Anniversary Campaign. The exercise celebrates the "longstanding dependability" of Sumitomo's insecticide, DiPel (*Bacillus thuringiensis var kurstaki*), as an effective tool for growers around the world. It is being amplified using various social media platforms.





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## Best Public Outreach Programme

Best Public Outreach Programme Award is designed to recognise excellence in the communication of information on the benefits of agrochemical or agbiotech products. This could include campaigns aimed at the user community or to the wider public. A campaign through any type of medium, such as print, television or internet, might be eligible for this Award.

**Corteva Agriscience** has instituted the Ag Women Leadership Academy (AWLA) in collaboration with the Brazilian Association of Agribusiness (ABAG) with the aim to support and encourage the advancement of women in agribusiness. The initiative seeks to help participants with learning, collaborating and advocating for agricultural technologies, including crop genetics and crop protection. AWLA is an eight-month programme and has had 379 participants till date.

With an eye on enhancing public perception of the benefits and safety of genetically modified plants, **CropLife Canada** has undertaken the “Nature Nurtured” campaign. The programme seeks to create an atmosphere for policymakers to enact “sensible regulations” for GM food and crops. CropLife Canada notes that the campaign provides informative, accurate and trustworthy information about GM foods during government consultations on new guidance for plant breeding innovation.

**FMC**’s entry in the much-contested category involves a programme in India to commemorate World Soil Day. The outreach focused on promoting good soil health practices and sought to equip farmers with relevant tools. Daily interactions were conducted to explain the significance of nutrient levels, and soil health reports were provided free of cost. The company also dispatched a soil health van to travel across the country’s villages.

For its second entry, **FMC** highlights its campaign in Indonesia in collaboration with the Australia-Indonesia Partnership for Promoting Rural Incomes through Support for Markets in Agriculture (**AIP-PRISMA**). The programme aims to have a “broad impact” on the country’s agriculture by enhancing farmers’ incomes and welfare. It seeks to do so through an educational outreach that focuses on improving access to agronomic knowledge, new markets, and safer inputs.

**UPL** initiated the “UPL Village” campaign in India with an eye on increasing the adoption of its ProNutiva programme, which integrates biological solutions with conventional crop protection formulations. The programme is conducted in a village that has a “cluster” of farmers who use the ProNutiva crop packages. UPL says that the campaign engaged “remarkably” with its target audience and fetched the company some \$27.1 million in 2021-21.

For its second entry, **UPL** highlights the company’s “Master Crop Project” in Brazil. The programme includes a forum of nutrition and physiology experts called the “Master Experience”, besides services such as monitoring of farms via satellites, among others. UPL notes that it offers through the project “specialised consultancy” for several important crops. This involves visiting farms with researchers to explore the critical points of a crop.



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## Best Company from an Emerging Region

The Best Company from an Emerging Region award recognises the company that has made the greatest contribution to the crop protection industry with headquarters outside of North America, Western Europe and Japan.

The finalists are:

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Brazilian company **Biotrop** has generated revenues of over \$30 million in three years since its 2018 inception and claims to have a portfolio spanning across solutions such as inoculants, bionematicides and biofungicides. The company highlights that it has a farm dedicated to biological products and has expanded its manufacturing capacity to over 6 million litres per annum. Biotrop operates in Latin American markets including Brazil, Argentina, Paraguay and Bolivia.

**Coromandel International** from India has been working on expanding its global footprint through its subsidiaries, offices, registrations and partnerships. The company has a hybrid product portfolio of standalone and combination products spanning insecticides, fungicides, herbicides and biopesticides. It points out that the business has exhibited “remarkable resilience” across markets and segments despite challenges presented by the Covid-19 pandemic. The company has 11 subsidiaries and operates in more than 80 countries.

Chinese business **Jiangsu Yangnong Chemical** specialises in developing pyrethroid insecticides and claims to have applied for 90 domestic invention patents in 2020. The company states that it exported pesticides worth \$922 million during that year, adding that it supplemented a decline in prices through enhanced sales volumes. Jiangsu Yangnong highlights its environmental stewardship and says that the company leads the domestic agrochemical industry in health, safety and environment (HSE) performance.

Argentinian company **Rizobacter**, part of Nasdaq-listed Bioceres Crop Solutions, is focused on biologicals with strong adjuvant and specialty nutrition businesses. It has eight subsidiaries and a commercial presence in over 40 countries. The company recorded revenues of \$184 million in its fiscal year 2020/21. In the past year, it entered partnerships with a number of companies, including toll manufacturing FMC’s insecticide, chlorantraniliprole (trade-marked as Rynaxypyr), in Argentina.

## Sponsor Profiles



### ADAMA

ADAMA is a global leader in off-patent crop protection, with sales in more than 100 countries. With a culture that empowers its people to listen to farmers and integrate what they learn in order to deliver what customers need, the company provides a wide range of solutions that combat weeds, insects and disease.

ADAMA offers one of the world's largest, most diverse portfolios of crop protection products, with more than 120 active ingredients, as well as state-of-the-art R&D, manufacturing and formulation facilities. ADAMA's more than 9,000 employees in over 45 countries, leverages its unique position to offer local farmers and customers an extensive range of distinctive mixtures, formulations and differentiated, high-quality products.



### UPL Ltd

UPL Ltd. is a global provider of sustainable agriculture products & solutions, with annual revenue exceeding \$5.2 billion. We are a purpose-led company. Through OpenAg™, UPL is focused on accelerating progress for the food system. We are building a network that is reimagining sustainability, redefining the way an entire industry thinks and works – open to fresh ideas, innovation and new answers as we strive towards our mission to make every single food product more sustainable. As one of the largest agriculture solutions companies worldwide, our robust portfolio consists of biologicals and traditional crop protection solutions with more than 14,000 registrations. We are present in more than 130 countries, represented by more than 10,000 colleagues globally.



### BAYER

At Bayer, we work to shape agriculture through breakthrough innovation for the benefit of farmers, consumers and our planet. We combine modern science with farmers' ingenuity to help nourish our growing world and preserve natural resources. We're committed to delivering better solutions for all farmers while enabling more choice for consumers to help them and our planet thrive. And, while we don't have all the answers, our passion for discovery, collaboration and curiosity means we will never stop striving to find them.

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## Company Profile



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ADAMA's more than 9,000 employees in over 45 countries, leverages its unique position to offer local farmers and customers an extensive range of distinctive mixtures, formulations and differentiated, high-quality products. The process of listening to farmers and experts, learning from their experiences and needs, and delivering products that meet these requirements is at the very center of ADAMA's product development. In its advanced R&D centers, ADAMA invests considerably in technologies that significantly improve the delivery of active ingredients to their targets, creating unique and advanced formulations with reduced application rates and with the potential to further improve yields. Along with its more traditional offerings, ADAMA with its farmer-centric approach, provides agricultural technologies to farmers that help them reduce the quantity of the chemical products they need to apply and increase the efficiency of each application. It has also partnered with numerous agricultural technology startups to optimize yields, decrease costs and minimize potential impacts on health, safety and the environment.

ADAMA has two main operational hubs in Israel and in China, and in addition, several manufacturing facilities worldwide including Brazil and India. Active community involvement has always been a priority at ADAMA. The company focuses on programs that support the advancement of education and the sciences, while encouraging its employees to participate in its community relations initiatives.

ADAMA invests in educational programs in chemistry, agriculture, sustainability and other areas of enrichment, whose mission is twofold: to cultivate the next generation of scientists, and to support, strengthen and invest in the communities in which ADAMA operates. Headquartered in Israel, ADAMA is traded on the Shenzhen Stock Exchange.

To learn more, visit [www.ADAMA.com](http://www.ADAMA.com) and follow ADAMA on LinkedIn at **ADAMA Ltd.** and on Twitter at **@ADAMAagri**

## Company Profile



### UPL Ltd

UPL Ltd. (NSE: UPL & BSE: 512070) is a global provider of sustainable agriculture products and solutions, with annual revenue exceeding \$5.2 billion. We are a purpose-led company. Through OpenAg™, UPL is focused on accelerating progress for the food system. We are building a network that is reimagining sustainability, redefining the way an entire industry thinks and works – open to fresh ideas, innovation and new answers as we strive towards our mission to make every single food product more sustainable.

As one of the largest agriculture solutions companies worldwide, our robust portfolio consists of biologicals and traditional crop protection solutions with more than 14,000 registrations. We are present in more than 130 countries, represented by more than 10,000 colleagues globally.

Across UPL and the OpenAg Network, we are committed to reimagining sustainability. This can only be achieved through collaboration, partnering with like-minded stakeholders with complementary approaches to unlock possibilities that no single actor could achieve on their own. This approach can be applied to technological innovation, new approaches to good agricultural practices, access to digital resources and tools, and through championing a new way of thinking about our shared food future.

Agriculture is indistinguishable from the natural world, and if we really want to change the game and redefine sustainability, we also have to reshape how we think about the incredible power of natural processes, systems, relationships and cycles that already exists in the environment. One of the most exciting possibilities for redefining sustainability is redefining our relationship with soil.

This is why we are creating a new initiative that draws on UPL's global footprint and extensive portfolio of products and services to create a seamless farmer

offering for soil health. It brings a full offering from UPL, NPP – Natural Plant Protection, and ADVANTA seeds and it will support UPL's teams to work closely with farms and farming communities to provide access to high-quality seeds, inputs, training services, and on-farm support to ensure that soil health is part of an holistic approach to plant and planet health.

We believe planet health starts from the GroundUp: it starts with soil health. We believe that it's time we gave soil the credit it deserves, and celebrated the incredible role it plays in food production, carbon sequestration, and biodiversity. We are committing to demonstrating how soil can be reimagined as a catalytic technology that can inspire a new relationship with, and a new balance in, the natural world.

By improving the health of our soils, we create the opportunity for large-scale carbon sequestration, and by increasing the levels of carbon in the soils we not only reduce the presence of greenhouse gases in the atmosphere, but proactively nourish the soil to encourage the most fertile, reactive area for beneficials, roots, exudates, and microbes to flourish.

As part of our commitment to Soil Health, UPL has recently launched two new initiatives to fast-track a new relationship with soil health. The first is the launch of the Radicle Carbon and Soil Challenge, a new competition to identify and fund two start-ups that offer innovative solution to reduce carbon footprint and improve soil health. The second is the launch of The Gigaton Challenge, which will create a new carbon credits market, aiming to reduce carbon dioxide emissions by one gigaton by 2040 and provide farmers and farming communities with a secondary income source. Treated like a technology, soil has the potential to feed a booming global population; reverse the impacts of climate change; and even transform greenhouses gas emissions. UPL, NPP, and ADVANTA will work with farmers and partners across the food chain to deliver healthy soils, healthy crops, healthy planet, from the ground up.

For more information about our integrated portfolio of solutions across the food value chain including seeds, post-harvest, as well as physical and digital services, please visit [upl-ltd.com](http://upl-ltd.com) and follow us on LinkedIn, Twitter, Instagram and Facebook





# Fertilizers



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- **Weekly & Bi-Weekly Market Reports:** Accurate price discovery across key benchmarks as well as current information for global fertilizer markets
- **Monthly Futures Reports:** Comprehensive analysis of short-term market developments, shipment lists, production costs and a short-term market outlook
- **Quarterly Outlooks:** In-depth analysis of each market, detailing key projects and long-term forecasting for supply, demand, prices and costs out to 2030
- **Regional Reports:** Specific reports on Europe, the US and the global fertilizer market

For more information visit <https://ihsmarkit.com/industry/agribusiness.html>

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You are expected to understand the core commercial landscape and identify growth markets. Our commercial analysis allows you to track company performance, with our industry rankings & M&A tracker, as well as identify key businesses with our company tracker and insight into new start ups.

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