5.Sep.2026 N º 95

Cultivar Semanal ®



Cover crops change corn defense

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The corn pesticide market advanced 13% in the second crop season

A survey by Kynetec indicates that the potential treated area (PAT) reached 425 million hectares covered

03.09.2026 | 10:19 (UTC -3)

Fernanda Campos



Agricultural pesticides generated R$ 15,4 billion in the second corn crop that ended

last July, representing a 13% increase compared to the previous period (R$ 13,7 billion). The data comes from the FarmTrak Corn Second Crop 2026 survey by Kynetec Brasil, which has just been released. This is the highest level of business in this crop recorded in the consultancy's historical series – in 2024, R$ 12,7 billion was recorded.

In US dollars, there was also a significant increase in product transactions, to US$2,86 billion, a rise of 18%. According to Kynetec, the difference between the readings resulted from the average 5% appreciation of the real against the dollar during the second harvest, with the average rate falling from R$5,67 to R$5,41.

“The result reverses the contraction trend observed in 2025, which was 7%,” emphasizes Millôr Mondini, research specialist at Kynetec. “The producer didn’t plant more corn in 2026. He treated the corn he planted more,” explains the executive. “The growth came ‘within the spray mixture,’ with more targets per application and the use of higher value-added products.”

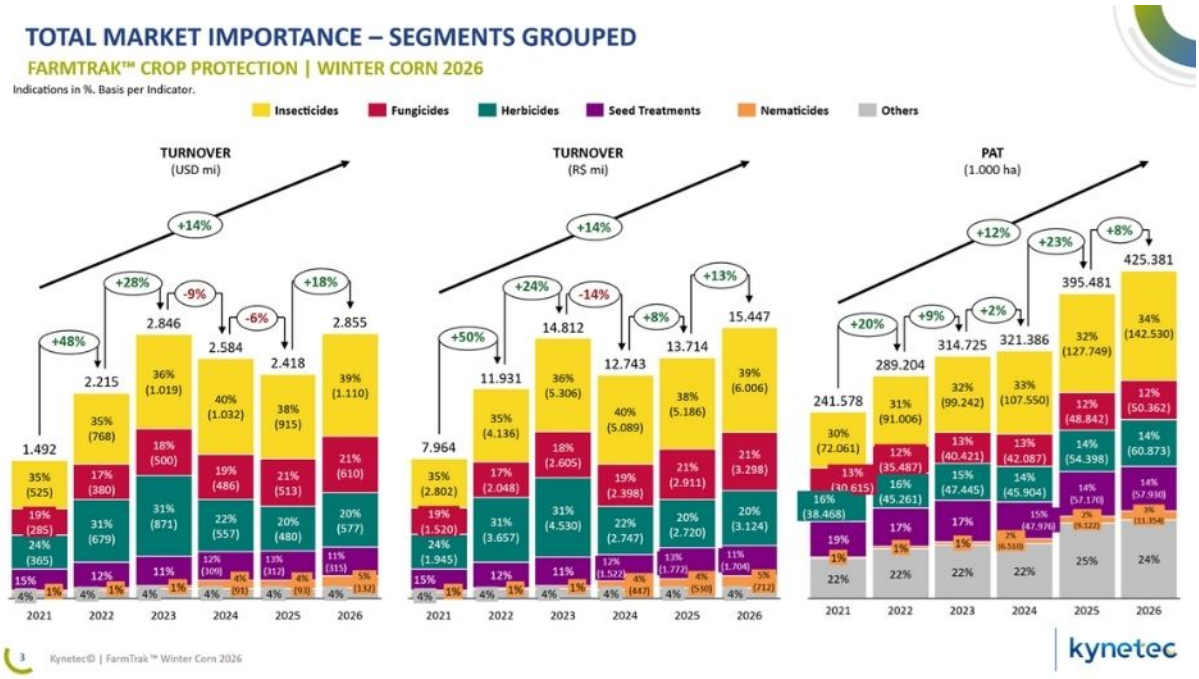
According to Mondini, the cultivated area showed a positive variation of only 1% in the regions evaluated by the consultancy, covering approximately 17,4 million hectares. In contrast, the average number of treatments (management intensity) increased from 17,7 to 19,1, boosting the potential treated area (PAT) to 425 million hectares covered, 8% higher than the

previous season.

According to Mondini, the market was also driven by the recovery in product prices. According to the executive, the average cost per treatment, after decreasing by 13% in 2025, went from R$ 43,10 per hectare to R$ 44,90 per hectare. The total investment in crop protection, he reveals, increased from R$ 794 to R$ 887 per hectare (+12%), driven mainly by the Mapitopa region – Maranhão, Piauí, Tocantins and Pará – and the state of Mato Grosso.

Performance by category

Insecticides remain at the top of the product ranking. They registered a 39% share, or R$ 6,01 billion, with a growth of 16%. Fungicides come in second place, with 21% of sales or R$ 3,3 billion (+13%). Herbicides, in third place, accounted for 20% or R$ 3,12 billion (+15%), followed by nematicides, 5% or R$ 712 million. The latter showed the largest relative growth in the survey, at 34%. Other products complement the total amount for the second crop in 2026.



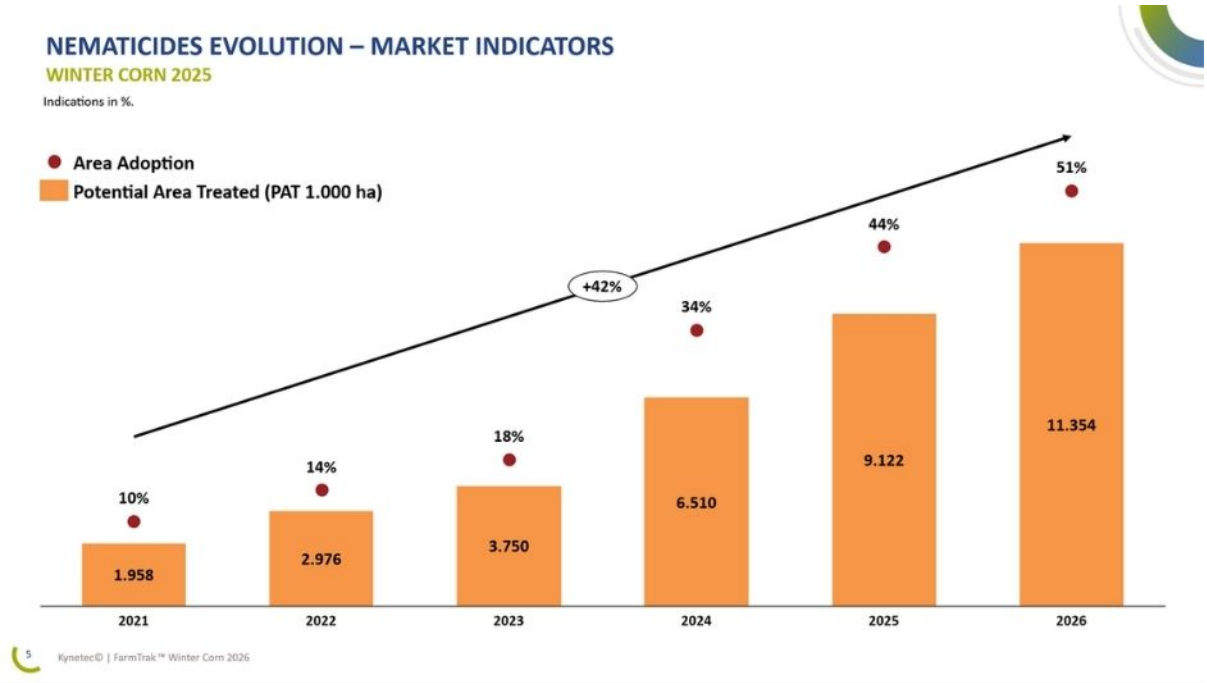
According to Mondini, caterpillar control made the largest single contribution to the insecticide market. It accounted for 43% of the value invested in products in 2026, compared to 32% in the previous off-season crop. It now totals R$ 2,6 billion, compared to R$ 1,64 billion, an increase of 58%. The adoption of insecticides for caterpillars covered 92% of the cultivated area.

"In summary, these data show that the protection provided by so-called next-generation biotechnologies no longer sustains the control of caterpillars. Foliar treatment with insecticides has ceased to be a complement and has become routine, regardless of the biotechnological event present in the seeds."

Regarding fungicides, Mondini points out that 'premium' products accounted for 58% of the total invested in disease control. This amounted to R$ 1,92 billion, compared to R$ 1,38 billion, or 48%, in 2025, representing a 39% increase. The executive emphasizes that their adoption reached 63% of crops, compared to 50% in the previous cycle.

In the herbicide segment, Kynetec's research found that broad-spectrum products jumped from 31% to 44% in adoption. "This movement mainly reflects the difficulty in controlling grasses such as goosegrass and sourgrass," explains Mondini.

The adoption of nematicides has reached 51% of the cultivated area, compared to 44% in 2025, mainly driven by the supply of biological products. This segment, notes Mondini, generated R$ 1,41 billion, 8% more than last year. However, its share of the total market decreased from 9,5% to 9,1%. "Nematicides now occupy 45% of the biological market for the cereal in the second crop," emphasizes the executive.



According to Millôr Mondini, considering both harvests – summer and off-season – the Brazilian market for corn pesticides totaled R$ 18,3 billion in 2026, with a growth of 13%. The second harvest, the executive concludes, accounted for 84% of the total.

The FarmTrak 2026 Second-Crop Corn survey resulted from nearly 2,3 face-to-face interviews with producers, managers,

and decision-makers across the entire agricultural frontier of second-crop corn. The Kynetec sample covered 17,4 million hectares, equivalent to 95% of the official area of ??the crop, with a margin of error of 2,1 percentage points and a confidence level of 95%.

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Agosto/2026

Bayer bets on integration to accelerate agricultural innovation

The company combines breeding, gene editing, biotechnology, chemistry, and digital tools to increase gains in the field

01.09.2026 | 22:51 (UTC -3)

Cultivar Magazine



Bayer is betting on the integration of genetic improvement, gene editing, biotechnology, crop protection, and digital tools to accelerate the development of agricultural technologies. The strategy connects these platforms to a single data and science system. According to Axel Trautwein, the company's regulatory science leader, this structure allows for shorter development cycles, increased genetic gain, and the creation of new approaches to managing pests, diseases, and weeds. This information was presented during the Bayer Innovation Showcase in Huxley, Iowa, United States.

The company places data and science at the heart of four research and development platforms: precision breeding, gene editing coupled with

breeding, biotechnology, and molecule design. The framework utilizes data accumulated over decades, as well as models developed by the company.

In genetic improvement, Bayer claims to have replaced a linear process with a continuous genetic cycle. The model provides lineages and data for product development on an ongoing basis.

Trautwein presented the DKC 68-35 hybrid as a result of this system. The material combines genetics from Thailand, Mexico, Argentina, and the United States. The company attributes this composition to the breadth of its germplasm bank. The hybrid exhibits characteristics related to tolerance, grain quality, and root strength.

Gene editing

Gene editing occupies another front in the strategy. Bayer has integrated this technology into its breeding program. The company seeks to modify different plant characteristics, including processes associated with photosynthesis, resilience, and plant architecture. One of the objectives involves plants adapted to higher densities.

The company anticipates the first commercial class of gene-edited materials in the early 2030s. More than 50 targets have already undergone activation within the presented pipeline. The strategy seeks to complement the development of transgenic traits and expand the

introduction of genetic variation in breeding programs.

In biotechnology, the company reported accumulating over 30 years of experience in plants. Its products reach more than 15 countries. Five new product launches are planned by 2029, and more than 16 technologies are in the pipeline for 2030 and beyond.

Crop protection

In crop protection, Bayer adopts a strategy based on the prior identification of the biological target. The process begins with a protein of interest present in the weed, pest, or pathogen. Researchers develop molecules capable of acting on this target.

The method differs from the approach based on synthesizing large volumes of molecules followed by biological activity tests. According to Trautwein, the new strategy expands the number of accessible targets for research. Each new target can pave the way for a new mode of action.

Resistance is one of the main points considered in development. A new mode of action can act on resistant organisms without prior exposure to the mechanism. The company also seeks to anticipate information related to safety and the possibility of registration. According to the presentation, this approach allows obtaining safety information up to five years earlier in the development process.

The formulation and application technology are integrated into the same system. The company considers these components necessary to deliver the active ingredient to the target and reduce dosages. The process connects discovery, molecular development, safety assessment, registration, formulation, and application.

A phase 2 fungicide candidate exemplifies the strategy. Bayer is developing the molecule for the management of Asian soybean rust in Brazil. The first trials took place in seven locations across the country.

According to the results presented, the candidate provided approximately a 17% increase in mass compared to the commercial standard under disease

pressure. The data came from field conditions, according to Trautwein.

Digital tools

The digital strategy aims to transform information generated during product development into agronomic recommendations. The tools provide guidance on product placement and plant density. The same models used in development can support decisions in the field.

The platform is also compatible with agricultural machinery systems. The goal is to transfer agronomic recommendations and decisions to the equipment used in the field.

The company plans to connect every product it sells to a digital recommendation in the future. Trautwein stated that the company has not yet reached that stage, but pointed to this integration as a direction for development.

Bayer is also working on the simultaneous development of herbicide tolerance traits, molecules for weed control, and digital tools. This approach differs from the model in which a company develops tolerance for an already available herbicide.

In this system, the company seeks to combine genetics, herbicide, and management recommendations from the very beginning of development. The presentation mentions greater flexibility in application timing, the use of targeted

applications, and a reduction in the amount of product needed to achieve control.

According to Trautwein, the integration of these technologies forms the basis of the company's research and development strategy for the next decade. The company intends to simultaneously advance in genetic improvement, characteristics for protection against insects and weeds, new modes of action in pesticides, and digital systems for managing products in the field.

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Fendt debuts three machines at the Farm Progress Show 2026

New additions include the 1100 Vario MT Gen2, the 80-foot Momentum, and the 300 Vario Gen5

01.09.2026 | 14:29 (UTC -3)

Cultivar Magazine, based on information from Bob Blakely



Fendt unveiled three new additions to its portfolio during the Farm Progress Show 2026, held in Boone, Iowa, in the United States. The brand launched the 1100 Vario

MT Gen2 track-type tractor and the 80-foot Momentum planter globally, in addition to presenting the new generation of the 300 Vario Gen5 for the first time in North America.

According to AGCO, Fendt's parent company, the product launches in the United States reinforce the brand's expansion strategy in North America and focus on productivity, efficiency, and reducing the total cost of ownership.

Fendt 1100 Vario MT Gen2

The 1100 Vario MT Gen2 becomes Fendt's most powerful model equipped with a VarioDrive transmission. The

system features a reinforced transmission to handle the increased power and combines the VarioDrive system with the Fendt iD low-rpm concept, aiming to improve power transfer efficiency and reduce fuel consumption.

The tractor also features SmartRide suspension, designed to enhance comfort on uneven terrain, as well as a directional drawbar or three-point hitch with active movement in response to steering commands.

The new cab incorporates the FendtONE operating system, updated controls, and a new lighting concept. The model also received a passive air filter cleaning system for the cab, developed to reduce maintenance needs in environments with

higher dust concentrations.

The Gold Star Customer Care program includes a three-year or 3-hour warranty, scheduled maintenance, availability of replacement equipment, and parts warranty.

Momentum 80-foot planter



Fendt has also expanded the Momentum line with a new 80-foot, 32-row version with 30-inch spacing (32R30). According to the manufacturer, this is the largest Momentum planter ever produced and the model is aimed at large-scale agricultural operations.

The machine has seed tanks with a capacity of 130 bushels and a fertilizer reservoir of 1.000 gallons. The system combines SmartFrame technology, factory-integrated Precision Planting systems, and, as an option, Load Logic weight management.

Another new feature is the vertical contour toolbar, divided into five sections, developed to improve planting accuracy in areas with undulating and uneven terrain.

The Gold Star Customer Care service for the planter provides three years or 16 acres of coverage, whichever comes first.

The new 300 Vario arrives in North America.



The new generation Fendt 300 Vario Gen5 also made its debut in North America. The

lineup now includes five models, including the new 310 Vario, with power ranging from 113 to 152 hp with Dynamic Performance (DP).

The DP system can automatically provide an additional 10 hp for auxiliary demands, such as air conditioning operation. The series also incorporates the FendtONE operating system and precision agriculture features such as guidance, ISOBUS, telemetry, and automated headland management.

Among the updates are the Cargo and Cargo Profi front loaders, which received a new hydraulic system with independent valves. The line also gained GroundVision lighting for nighttime operations, a redesigned hood with daytime running

lights, and a new swivel seat.

Orders and deliveries

The Fendt 1100 Vario MT Gen2 and 300 Vario Gen5 are now available for order, with first deliveries expected in 2027. The 80-foot Momentum planter will have limited orders opening in the fall of 2026 in the Northern Hemisphere, with deliveries expected in the spring of 2027.

During the Farm Progress Show, Fendt is also presenting a new 60 km/h transport option, expected to hit the market in late 2026. The 500 Vario Gen4 and 800 Vario Gen5 models are also making their debut at the show.

The Farm Progress Show takes place from September 1st to 3rd in Boone, Iowa.

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Genomes reveal global lineages of the citrus psyllid

Study identifies 32 fixed variants and candidate markers to trace the origin of Diaphorina citri

01.09.2026 | 06:17 (UTC -3)

Cultivar Magazine



Photo: Syngenta

An analysis of 133 mitochondrial genomes of Diaphorina citri identified two lineages with strong genetic differentiation, one

Asian and the other American. The study found 32 fixed nucleotide variants between the groups. These sites can serve as molecular markers to trace the origin of insects in quarantine and monitoring actions.

Diaphorina citri transmits Candidatus Liberibacter asiaticus, a bacterium associated with huanglongbing. Researchers compiled 77 previously published genomes, 13 new genomes from Hunan, China, and 43 mitogenomes obtained from metagenomic data. The sample included Asia, the Americas, and Africa.

The Asian lineage comprised 91 samples, including one from Uruguay. The American lineage comprised 42 samples, including

one from Pakistan. The differentiation between the two lineages reached an FST of 0,560, with p less than 0,001.

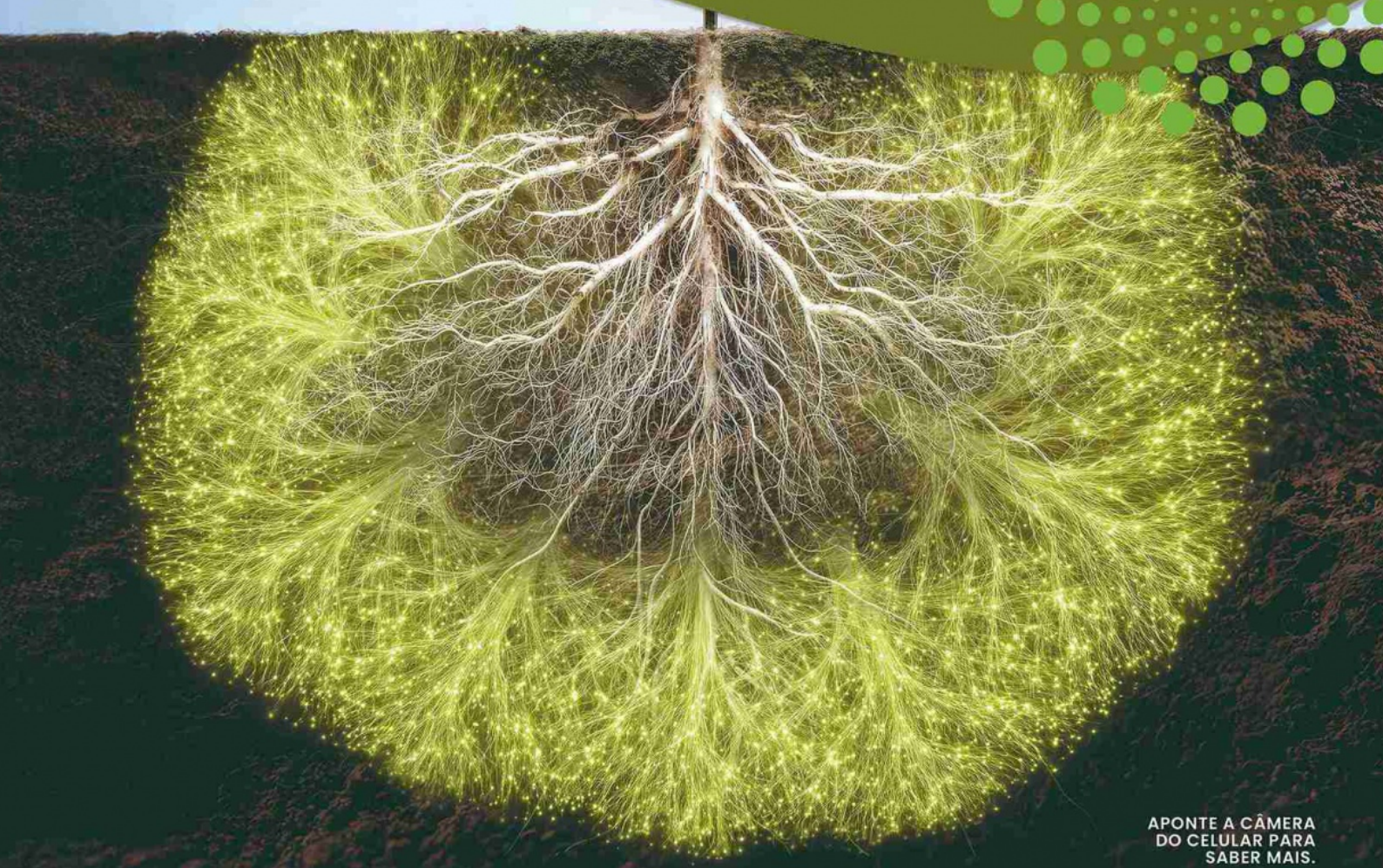
In the Asian group, eight samples from the Yunnan–Guizhou Plateau formed a genetically distinct cluster. The plateau population showed an FST of 0,130 compared to the lowland populations and lower nucleotide diversity. Two fixed differences in the trnG and rrn16 genes emerged as candidate markers for this lineage.

The data also points to Southeast China as a possible center of expansion after colonization. The small sample size in Southeast Asia prevents defining a definitive global origin.

Scientists emphasize the need to validate the markers in samples from other regions before use in quarantine, surveillance, or management programs (doi 10.3390/insects17090917).

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Legacy of cover crops alters corn defense

Pea, radish, triticale, and fallow have altered maize's defense compounds and predator preferences

29.08.2026 | 16:57 (UTC -3)

Schubert Peter, Cultivar Magazine



Photo: University of Georgia / Bugwood

The history of soil cultivation can alter how corn distributes resources between direct

and indirect defense mechanisms against insects. Experiments with soils subjected to pea, radish, triticale, or fallow land showed differences in benzoxazinoid production and indole emission after attack by the fall armyworm. The effect also extended to the interaction between the pest and a generalist predator.

Researchers evaluated maize grown in soils with legacy crops of pea (Pisum sativum), radish (Raphanus sativus), and triticale. A fallow area served as a control. The team investigated the plants' response to attack by Spodoptera frugiperda, as well as the interaction of the caterpillars with the predator Harmonia axyridis (doi 10.1016/j.baae.2026.04.003).

Different strategies

The results indicated a trade-off between different defensive strategies. Corn grown after peas showed a higher proportion of indole in the mixture of volatile compounds released after herbivory. This compound is part of the indirect defense mechanisms of corn. Its action participates in plant signaling and may favor responses related to attracting natural enemies.

At the other extreme, plants grown in fallow soil showed a higher concentration of benzoxazinoids in their leaves. These metabolites act in direct chemical defense against herbivores. After 48 hours of feeding by the fall armyworm, the total amount of these compounds in the fallow

corn reached approximately double the values ??recorded in the other soil legacies.

Different direction

The response to indole followed a different direction. Herbivory increased the emission of this compound, while soil type also showed an independent effect. Plants grown after peas registered almost double the proportion of indole in the airspace compared to plants from fallow land. The difference between soils, however, appears in a specific compound, and not in the set of volatiles: on the overall profile of the mixture, the effect of soil type was only marginal (P = 0,0549). The researchers did not detect a similar response, associated

with the soil legacy, for other compounds evaluated, including green leaf volatiles, monoterpenes, and sesquiterpenes.

According to the scientists' interpretation, the results point to a possible redistribution of metabolic resources between direct and indirect defense. Indole participates in pathways related to benzoxazinoids, although different enzymes produce indole reservoirs with distinct functions within the plant. In soil with a legacy of legumes, corn directed the response towards greater participation of the indirect mechanism. In fallow soil, there was greater investment in certain compounds of direct defense.

Protease inhibitor

The researchers also analyzed the expression of a gene related to protease inhibitor. Feeding with Spodoptera frugiperda induced this response in all treatments. However, soil type did not cause a significant difference in the level of induction. The result indicates the absence of a uniform effect of the legacy of cover crops on all maize defense mechanisms.

The effect reached the relationship between the caterpillar and Harmonia axyridis. In a no-choice trial, the predator consumed caterpillars at a similar rate, regardless of the soil treatment. In the trial with prey choice, a different response occurred. Adults showed a significant preference for caterpillars fed on corn grown after peas. These caterpillars

received more than twice as many choices compared to individuals from treatments with triticale or fallow.

Chemical composition of caterpillars

The chemical composition of the caterpillars also changed. Individuals fed on corn grown in soil with pea legacy accumulated higher concentrations of different benzoxazinoids compared to caterpillars from the radish treatment. The fallow soil showed intermediate values ??for these compounds. The triticale treatment was excluded from this analysis: the caterpillars raised in this soil were smaller than expected, which hindered the

detection of the compounds. The study recorded concentrations of benzoxazinoids in the body of Spodoptera frugiperda much higher than those found in plant tissue. However, the researchers emphasize the need for further studies to clarify the role of this accumulation in the interaction with predators and parasitoids.

The experiment used soil collected in 2022 and 2023 from a cover crop research area in Pennsylvania, United States. The site had been organically managed without chemical inputs since 2014. After the cover crops were finished and incorporated into the soil at the end of spring, the team collected topsoil up to twenty centimeters deep. The samples underwent composition analysis within each treatment and were

used for growing corn in a greenhouse.

Possible explanations

For the researchers, nutrients and microbial communities are among the possible components of the legacy effect. The study did not separate the participation of each factor. The team observed trends in nutrient profiles, but did not assess changes in the structure of the microbial community. For this reason, the work does not attribute the results to a specific mechanism.

The data broaden the discussion on the use of cover crops in integrated pest management. The choice of the preceding species can produce effects beyond soil structure, nutrient cycling, and water

conservation. The legacy left in the soil can also modify the chemical defense pathways of corn, the quality of herbivores as prey, and the behavior of natural enemies. According to the scientists, aligning the choice of cover crop with the desired defensive outcome could serve as a natural tool for pest suppression. They add that future studies integrating microbiota, nutrient flow, plant growth, and species interactions will be important to consolidate this approach.

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Nematode pheromone prepares plants against pathogens

Ascr#18 activates immune memory, reduces disease, and preserves productivity in different crops

29.08.2026 | 16:32 (UTC -3)

Cultivar Magazine



Researchers have demonstrated the potential of ascaroside ascr#18, a pheromone produced by soil nematodes,

to prepare the immune system of plants against different pathogens. The compound promoted prolonged resistance without permanently activating defenses, a process associated with lower growth and development costs.

The mechanism involves what is called immune priming. After contact with ascr#18, regulatory regions of defense genes exhibit more open chromatin. This condition facilitates a faster response after infection. In Arabidopsis thaliana, activation depended on the NILR1 receptor. Mutant plants lacking proper function of this receptor lost the priming effect promoted by the compound.

Seed treatment also maintained its effect for several weeks. In soybeans, it

increased survival after inoculation with Phytophthora sojae and reduced the systemic spread of soybean mosaic virus. In wheat, the treatment suppressed between 80% and 90% of Rhizoctonia solani multiplication. Treated rice also showed less damage after inoculation with Xanthomonas oryzae.

Field trials expanded the results. In corn, foliar application of 25 milligrams per acre reduced the severity of leaf spot caused by Bipolaris maydis and increased productivity. In soybeans, two applications of 50 milligrams per acre reduced Asian soybean rust, caused by Phakopsora pachyrhizi, and increased yield.

Researchers point to ascr#18 as a potential strategy for crop protection with less dependence on pesticides. The

compound acts on the plant's defensive capacity, with no direct effect identified on bacterial multiplication or fungal spore germination in the tests performed (doi 10.1038/s42003-026-10211-1).

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Agricultural Market - 4.Sep.2026

US harvest puts pressure on soybean and corn prices after recent highs

04.09.2026 | 16:40 (UTC -3)

Vlamir Brandalizze - @brandalizzeconsulting



Soybean and corn prices began to weaken in the international market as the crop cycle progressed in the United States and

the harvest approached. Agricultural prices had been near their highest levels in the last three to four years. The start of the North American harvest is likely to increase pressure on prices. At the same time, oil remains above $96 per barrel amid tensions involving the United States and Iran.

In soybeans, contracts lost some of the gains seen in recent weeks. The spot market retreated to below $12,90 per bushel. The November position also fell below the $13 per bushel level. Even with the correction, prices remain at levels considered high compared to recent years.

The U.S. crop is entering its final stage of development. Approximately 97% of the crops have reached the pod formation

stage, compared to an average of 95%. Maturation has reached 17%, above the average of 12%. According to the USDA, 58% of the crops are in good or excellent condition. At the same time last year, the rate was 65%.

This scenario fuels production projections below the figure released by the USDA in August, of 123 million tons. Pro Farmer previously estimated 124,4 million tons. The subsequent deterioration of the crops has opened up room for expectations of a harvest of less than 120 million tons.

Chinese purchases of US soybeans continue at significant volumes. However, this movement has not sustained further increases in Chicago. In Brazil, the dollar has returned to the 5,10 reais range. This

level limits some of the potential for appreciation at the ports.

The commercialization of the current Brazilian harvest has reached approximately 80,5% of production. Last year, the rate was 82,5%. The volume still available in the hands of producers totals approximately 35,2 million tons, compared to 30,1 million tons in the previous cycle.

In the new harvest, approximately 37% of the production has already been negotiated. This figure reached 38,5% during the same period last year, with a historical average of 39%. In terms of volume, sales total nearly 69 million tons. The projection presented in the material indicates a Brazilian harvest between 185 million and 190 million tons, in an area

exceeding 50 million hectares.

Corn situation

The corn market has also entered a phase of adjustment. In the United States, 95% of crops have reached ear formation, compared to a historical average of 90%. Grain filling reached 65%, against an average of 60%. Maturity reached 16%, very close to the average of 15%.

However, the condition of the crops is below that recorded in the previous cycle. Approximately 57% of the areas are rated as good or excellent. Last year, the percentage reached 69%.

The market is monitoring potential revisions to the US production estimate.

The previous report indicated a volume above 406 million tons. Projections cited in the report range between 395 million and 398 million tons. Pro Farmer pointed to just over 389 million tons.

Reduced production is likely to limit the availability of U.S. crops for export. Harvesting is expected to begin in the coming days in the southernmost producing regions of the United States.

In Brazil, the second crop harvest has reached approximately 95%. At the same time last year, the figure was 97%. The projection presented indicates production close to 112 million tons, compared to 113,3 million tons in the previous cycle.

Planting of the summer crop has progressed to between 30% and 40%. However, the market is seeing signs of reduced acreage. Estimates indicate a possible decrease of between 200 and 500 hectares compared to last year. High production costs, especially in the South, are reducing interest in the cereal. In some regions, the ratio between revenue and cost leaves narrow or negative margins.

Wheat situation

Wheat has seen strong gains over the last 50 to 60 days. Prices rose from just over $6 per bushel to nearly $8 per bushel in longer-term contracts. The market is now undergoing an adjustment period, with contracts still above $7 per bushel in

Chicago.

The harvest is nearing its end in the Northern Hemisphere. In Russia, less than 20% of the area remains. In Ukraine, less than 15%. In the United States, the spring wheat harvest is also entering its final stages.

The global production figures cited in the report are lower than in previous years and lower than consumption. In Brazil, the planted area fell to nearly 2 million hectares, compared to approximately 2,5 million hectares last year.

Rice situation

The rice market remains strong. In Rio Grande do Sul, prices are approaching 80

reais per sack in the western border region. In the central states, prices exceed 100 reais per sack. In Tocantins, indications range between 103 reais and 110 reais, with negotiations mentioned near 115 reais.

Retailers are entering a period of restocking, while producers are selling part of their inventory to finance the planting of the new crop. In Rio Grande do Sul, IRGA estimates an area of ??861,7 hectares, a 3,4% reduction compared to the previous cycle. Producers cited in the material consider a greater contraction possible.

The planted area is also expected to decrease in other Mercosur countries. Paraguay, Argentina, and Uruguay are expected to see a reduction. In Paraguay, planting has reached approximately 9%.

The available supply appears to be limited.

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Saiba mais!

José Borgo assumes global commercial directorship at Rovensa Next

The executive will join the Executive Committee and will focus on sustainable growth and the company's performance in global markets

04.09.2026 | 15:03 (UTC -3)

Cultivar Magazine, based on information from Rovensa Next



Rovensa Next announced the appointment of José Borgo (pictured) as its new Chief

Commercial Officer (CCO). With over 20 years of experience in international leadership, the executive will join the company's Executive Committee and will be responsible for leading the global commercial organization.

According to the company, Borgo's main objectives will be to strengthen execution in the markets, enhance commercial excellence, and accelerate sustainable growth, focusing on the needs of customers, partners, distributors, and producers.

The executive has experience in performance transformation and large-scale business integration. Throughout his career, he has led organizations in various sectors, including agribusiness, during

periods of expansion and operational change.

“It is a privilege to join Rovensa Next and begin this new chapter alongside such a dedicated global team. I look forward to building on Rovensa Next’s strong foundation of collaboration with our customers, partners, distributors, and producers, providing the integrated biosolutions strategies and customized solutions they need to thrive,” said Borgo.

According to Ignacio Domínguez, president and CEO of the Rovensa Group, the executive's arrival should contribute to strengthening the company's performance in different markets.

“Based on our solid market position, José’s focus will be on optimizing our global performance to further strengthen our dedicated local teams, ensuring that we continue to offer effective solutions to our partners with even greater agility,” he stated.

Change in leadership

The change also involves Riccardo Vanelli, who has held the position of commercial director since August 2024. The executive now assumes the position of director of innovation and strategy and will also join the Executive Committee.

In her new role, Vanelli will be responsible for connecting customer needs and market

opportunities to the company's product strategy and research, development, and innovation initiatives.

Domínguez highlighted the strategic nature of the change. “With Riccardo taking on this new role to drive strategy and innovation, we are positioned to generate an even greater commercial impact for our distributors, producers, and market partners worldwide,” he said.

According to Rovensa Next, the changes in the leadership structure aim to bring commercial operations closer to the research and development areas and the portfolio's innovation strategy.

The company states that the integration of these areas is part of the "Biosolutionize Agriculture" initiative, aimed at developing

biosolutions to improve crop performance and profitability, reduce the use of synthetic products, and contribute to more sustainable agriculture in different crops and climatic conditions.

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ATENÇÃO ESTE PRODUTO É PERIGOSO À SAÚDE HUMANA, ANIMAL E AO MEIO AMBIENTE; USO AGRÍCOLA; VENDA SOB RECEITUÁRIO AGRONÔMICO; CONSULTE SEMPRE UM AGRÔNOMO; INFORME-SE E REALIZE O MANEJO INTEGRADO DE PRAGAS; DESCARTE CORRETAMENTE AS EMBALAGENS E RESTOS DOS PRODUTOS; LEIA ATENTAMENTE E SIGA AS INSTRUÇÕES CONTIDAS NO RÓTULO, NA BULA E RECEITA; E UTILIZE SEMPRE OS EQUIPAMENTOS DE PROTEÇÃO INDIVIDUAL.

Corteva promotes Veríssimo Gibran to global portfolio leader

Executive to lead management strategies for cereals, rice, and specialty herbicides

03.09.2026 | 17:27 (UTC -3)

Cultivar Magazine



Corteva Agriscience has promoted Veríssimo Gibran Mendes de Sá to the position of Global Stewardship Portfolio Leader for the Cereals, Rice, and Specialty

Herbicides areas. The executive is based at the company's facility in Indianapolis, Indiana, in the United States.

In his new role, Gibran will work globally on the development and implementation of stewardship strategies for the portfolios, collaborating with different regions and areas of the company. Responsibilities include supporting product launches, lifecycle management, market expansion, and responsible product discontinuation. In addition, he will also seek to ensure the company's operational freedom, promote the sustainable use of products, and contribute to Corteva's long-term results.

Gibran is an agricultural engineer from the Federal University of Minas Gerais (UFMG), with a master's and doctorate in

Entomology from the Federal University of Viçosa (UFV). He joined Dow AgroSciences in 2013 and subsequently moved to Corteva in roles related to research, regulatory affairs, and regulatory policies.

Since 2023, she held the position of Latin America and Brazil Regulatory Policy Leader for Crop Protection and Biologicals.

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Laboratory selection generates high resistance of Crocidosema to Cry2Ab2

The strain showed resistance greater than 15 times, with no cross-resistance to Cry1Ac and Cry1A.105

03.09.2026 | 12:22 (UTC -3)

Cultivar Magazine



Photo: Todd Gilligan / USDA APHIS PPQ - Bugwood

Researchers in the laboratory selected a Crocidosema sp. strain with resistance greater than 15 times to the Cry2Ab2 protein. Their study indicated incompletely recessive inheritance, the involvement of a major effect gene, and the absence of cross-resistance to Cry1Ac and Cry1A.105. The results reinforce the need for resistance management in Bt

soybeans.

The selection process began with a population collected from non-Bt soybean plants in Capão Bonito do Sul, Rio Grande do Sul. In each of the nine consecutive selection generations, neonates were exposed for six days to soybean leaves containing Cry2Ab2; surviving larvae were then fed an artificial diet until pupation. Mortality decreased from 96,5% in the first generation to 8,9% in the ninth. The study's bioassays were conducted between the ninth and fifteenth generations after selection.

Dietary bioassays

In diet bioassays, the lethal concentration for 50% of susceptible insects reached 0,24 nanograms per square centimeter. In the resistant strain, mortality remained below 19% even at the highest concentrations evaluated. Lethal concentrations exceeded 3.600 nanograms per square centimeter, the highest dose tested, and the low mortality prevented fitting the probit model.

Reciprocal crosses indicated predominantly autosomal inheritance. Researchers did not rule out a maternal effect. Dominance estimates ranged from 0,08 to 0,25 in diet and from 0,16 to 0,26 in soybean leaves with Cry2Ab2. The values ??characterize incompletely recessive resistance.

Susceptibility maintained

The resistant line maintained susceptibility to Cry1Ac and Cry1A.105. The resistance ratios were 0,34 and 0,31, meaning that the selected line proved to be even more susceptible to these proteins than the susceptible line. Soybeans with Cry1Ac or Cry1A.105 controlled insects resistant to Cry2Ab2, as did the combination of Cry1Ac, Cry1A.105, and Cry2Ab2.

The trials did not indicate an apparent adaptive cost associated with resistance. The resistant lineage took about four days longer to reach adulthood, but showed an intrinsic population growth rate of 0,112 per day, compared to 0,098 per day in the

susceptible lineage, with a relative fitness of 1,14. According to the study, the absence of this cost may favor the persistence of resistance alleles in the field.

The work was carried out by scientists Venicius E. Pretto, Jéssica LS Grzybowski, Otavio Liberalesso, Daniela N. Godoy, Arthur Dallanora, Marylia P. Cargnin, Renato J. Horikoshi, Sandy S. Silva, Ramiro FL Ovejero, Leonardo Miraldo, Samuel Martinelli, Graham P. Head, and Oderlei Bernardi.

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Tuta absoluta expands her presence in open field matches in Hungary

The plague occurred in 21 of 23 locations and completed five generations per year in monitored areas in 2023

03.09.2026 | 12:08 (UTC -3)

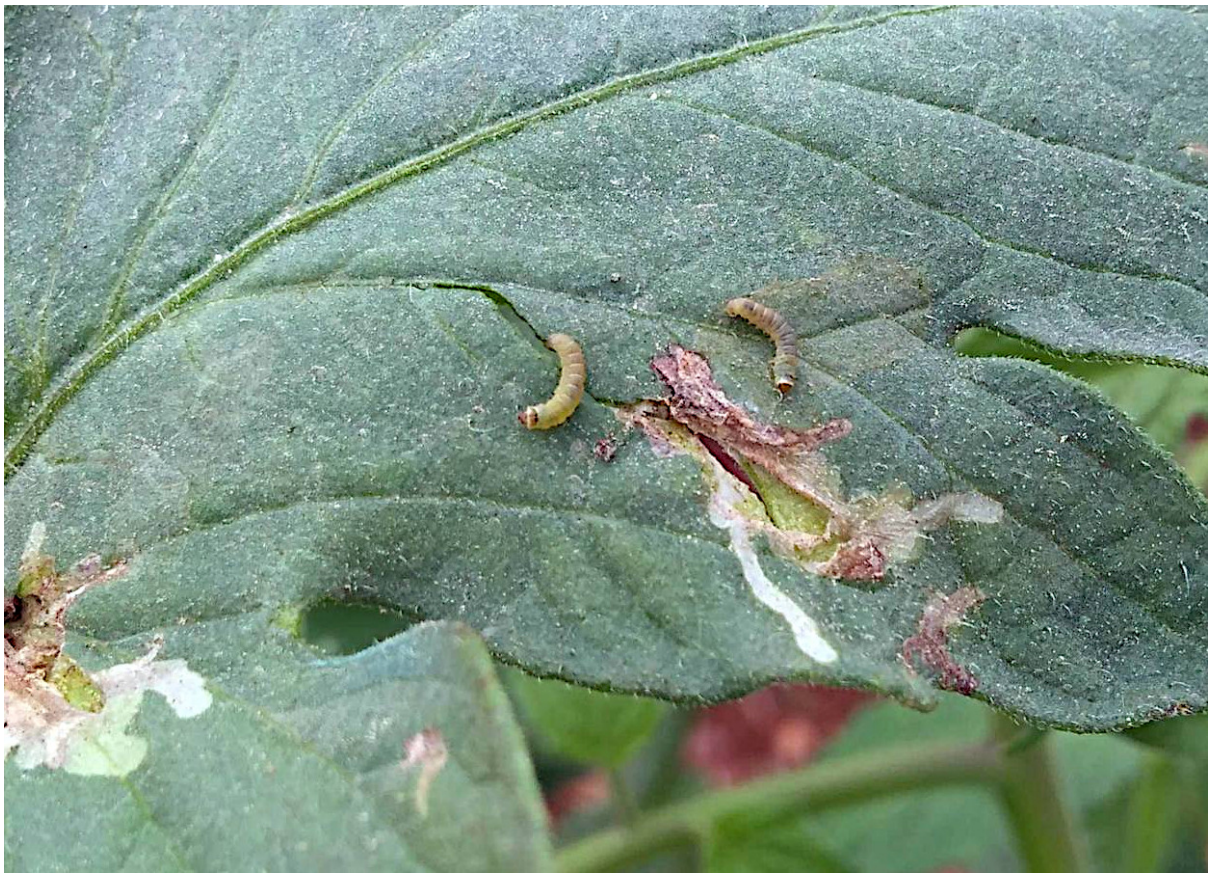


Photo: Metin Gulesci / Leaf Tobacco - Bugwood

The tomato leafminer Tuta absoluta, currently named Phthorimaea absoluta, has consolidated its presence in open-field crops in Hungary and maintained adult activity from May to December 2023. Monitoring with pheromone traps detected the pest in 21 of the 23 locations evaluated in the country. In Budapest and Békéscsaba-Gerla, researchers recorded five overlapping generations during the year.

The data indicate a change in the species' occurrence pattern, previously associated mainly with greenhouses in temperate regions. The pest showed greater abundance in large urban areas. Researchers relate this result to warmer microclimates, under the urban heat island effect. The difference in density between

highly urbanized locations and less urbanized areas reached statistical significance.

In Budapest, the first flight took place on May 24th. In Békéscsaba-Gerla, it began on May 25th. The dates preceded the estimates based on thermal accumulation by one to two weeks. The model adopted a threshold of eight degrees Celsius and a requirement of approximately 460 degrees Celsius-days per generation.

Calculations indicated approximately 5,3 generations in Budapest and 5,2 in Békéscsaba-Gerla. Captures confirmed five generations in both locations.

The early onset of flights suggests a greater capacity for survival during winter in open fields. Scientists emphasize the

need for specific studies to confirm this hypothesis. The work also reinforces the importance of early detection and integrated pest management (doi 10.3390/insects17080850).

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Vylor creates platform for investing in agricultural technologies

Vylor Edge will initially focus on gene editing, enhancement, proteins, artificial intelligence, and digital platforms

03.09.2026 | 11:43 (UTC -3)

Cultivar Magazine

Vylor announced the launch of Vylor Edge, an investment platform focused on developing technologies for global

agriculture. The company will operate through capital investments and strategic partnerships with startups, entrepreneurs, universities, and members of the innovation ecosystem.

Vylor will begin operations after its separation from Corteva, scheduled for October 1, 2026. The new platform will initially focus on gene editing and advanced breeding, protein engineering, artificial intelligence, and digital technology platforms.

According to Sam Eathington, chief technology officer of the future Vylor, the initiative aims to bring the company closer to the global scientific community and accelerate innovations focused on the main challenges of agricultural production.

The strategy will combine Vylor's technical expertise with technologies developed by other groups.

Vylor Edge will also evaluate opportunities in other segments with technologies applicable to the company's business. Mat Muller, head of the platform, stated that partners will have access to Vylor's technical expertise, research and development capabilities, global presence, and go-to-market infrastructure.

The initial portfolio will bring together investments and collaborations previously linked to Corteva Catalyst. These projects will migrate to Vylor during the separation process. Vylor Edge will continue the partnerships and seek new opportunities for the development and commercialization of agricultural technologies.

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Sumitomo launches TopGrain for soybeans and corn

Technology based on abscisic acid integrates the company's new physiological management strategy

03.09.2026 | 09:53 (UTC -3)

Cultivar Magazine



Sumitomo Chemical presented TopGrain this week in São Paulo (SP), a new biorational solution developed to act in the

physiological management of soybeans and corn, focusing on the grain filling phase. The launch was the main highlight of a meeting that brought together physiologists, farmers and company partners on September 2nd and 3rd to discuss the use of plant physiology as a management tool.

Based on abscisic acid, TopGrain was developed to act on metabolic processes related to grain formation and filling. According to Sumitomo Chemical, the technology aims to improve the plant's metabolic efficiency and promote the direction of assimilates to the grains, especially during periods considered critical for determining productivity.

The company expects that the use of the technology can provide productivity increases of up to 5% in soybeans and corn. In scenarios used as a reference by the company, this percentage would represent approximately three additional sacks of soybeans and seven sacks of corn per hectare. In sugarcane cultivation, where the technology has already been used for several harvests, the increase is four to seven tons per hectare.

Sumitomo is confident that the results obtained by the producer during the first harvest using the tool will serve as a basis for them to incorporate it into crop management in subsequent cycles.

Focus on grain filling

TopGrain is part of the company's physiological management portfolio and is designed for one of the key stages in soybean and corn productivity. During grain filling, conditions such as high temperatures and water restriction can interfere with the plant's ability to sustain grain development.

According to the company, the product acts on metabolic efficiency and the translocation of assimilates, favoring the transport of sugars to the grains. The proposal also includes preparing the plant to use available water more efficiently during critical periods and the main nutrients absorbed from the soil.

“TopGrain practically represents what we are proposing with physiology, that is, to

look at the plant, understand what happens in each phase of its development and create a specific technology to act on that process. In the case of soybeans and corn, we are directing the solution towards grain filling, a crucial step for the final result of the crop," stated Henrico Bizão, BioRationals Brazil Manager at Sumitomo Chemical.

The technology utilizes abscisic acid within this management strategy. The company's stated objective is to influence the plant's functioning to improve its ability to convert available resources into grain production, seeking greater stability in the face of unfavorable environmental conditions.

Physiology plays a role in the management strategy

The launch comes at a time when Sumitomo is seeking to expand the role of physiological management within its portfolio of biorationals. The aim is to integrate this type of technology into existing crop practices, not to replace crop protection tools or other agronomic strategies.

“Physiology doesn’t replace the technologies that have already transformed the field, but it integrates this knowledge and adds a new dimension to management: better understanding the plant to help it express its productive

potential,” explained Luciano Jaloto, Marketing Director Brazil at Sumitomo Chemical.

According to the executive, the increased frequency of adverse environmental conditions and the need to more efficiently exploit the genetic potential of cultivars and hybrids are expanding attention to the physiological processes of crops.

In practice, this management seeks to interfere in processes related to water and nutrient uptake, vegetative development, formation of yield components, and plant responses to stress situations.

The theme guided the meeting held by the company in São Paulo, with the concept "New Wave of Agriculture – Maximum Potential through Physiology". In addition

to the in-person program, with lectures, panels, roundtables and presentations of field experiences, the event was broadcast to 85 locations distributed across 14 Brazilian states.



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The market for biorationals is growing in Brazil

The focus on physiological management is occurring within a market for biorationals that has been showing growth exceeding other segments of agriculture. According to

data presented by Sumitomo Chemical during the meeting, this market has been growing at an average rate of approximately 15% per year in Brazil.

In the company's own Brazilian operation, revenue obtained exclusively from products classified as biorational grew 17% in 2025, after registering a 14% expansion in 2024. Currently, Brazil accounts for 76% of Sumitomo Chemical's sales in this category in Latin America.

This performance is part of a broader company expansion strategy. Sumitomo projects growth between 7% and 8% in 2026 and aims to double in size by 2030.

“Brazil occupies a strategic position in this expansion because it brings together a technologically advanced, diversified

agriculture that is increasingly open to integrating different tools to protect and enhance crop performance," said Alexandre Pires, General Manager for Brazil at Sumitomo Chemical.

The company uses the name BioRacionais for a portfolio that brings together different technologies, including biocontrol products, microorganisms, substances of natural origin, growth regulators, and solutions aimed at the physiological management of crops.



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More than six decades of development

Sumitomo Chemical's activity in this segment originates from technologies developed over six decades. In 2000, the company expanded its presence in the area with the global acquisition of Abbott's agricultural and public health products business, incorporating products such as the growth regulator ProGibb, originally launched in 1962, and the bioinsecticide DiPel, from 1971, into its portfolio.

More recently, in 2025, Valent BioSciences changed its name to Sumitomo BioRational Company, a move that was part of a global strategy to consolidate this business area.

The company reports investing 7,5% of its global revenue in research and development. In the area of ??crop protection, the research structure evaluates approximately 150 molecules per week, or about 7,8 per year, and records, on average, the launch of a new active ingredient every two years.

Part of the research related to biorationals is concentrated at the Global Center of Excellence for Innovation in BioRationals, located in Libertyville, Illinois, in the United States. The center works with biological solutions, microorganisms, natural extracts, growth regulators, and technologies focused on plant physiology.

Integration with conventional management

The strategy presented by Sumitomo does not treat chemical and biorational products as competing tools. The company advocates the integrated use of technologies according to the crop, stage of development, environmental conditions, and problems observed in each area.

“Brazilian farmers are attentive to the efficiency of the production system. Our role is to offer technologies that make sense within this reality and that can be integrated into management practices. The growth of BioRationals shows that there is a concrete demand for solutions that

expand the possibilities of acting on the plant and on the production environment," said Pires.

For the company, greater production predictability is one of the points that should gain importance in the adoption of these tools, particularly in a scenario of pressure on margins, high interest rates, and increased production costs.

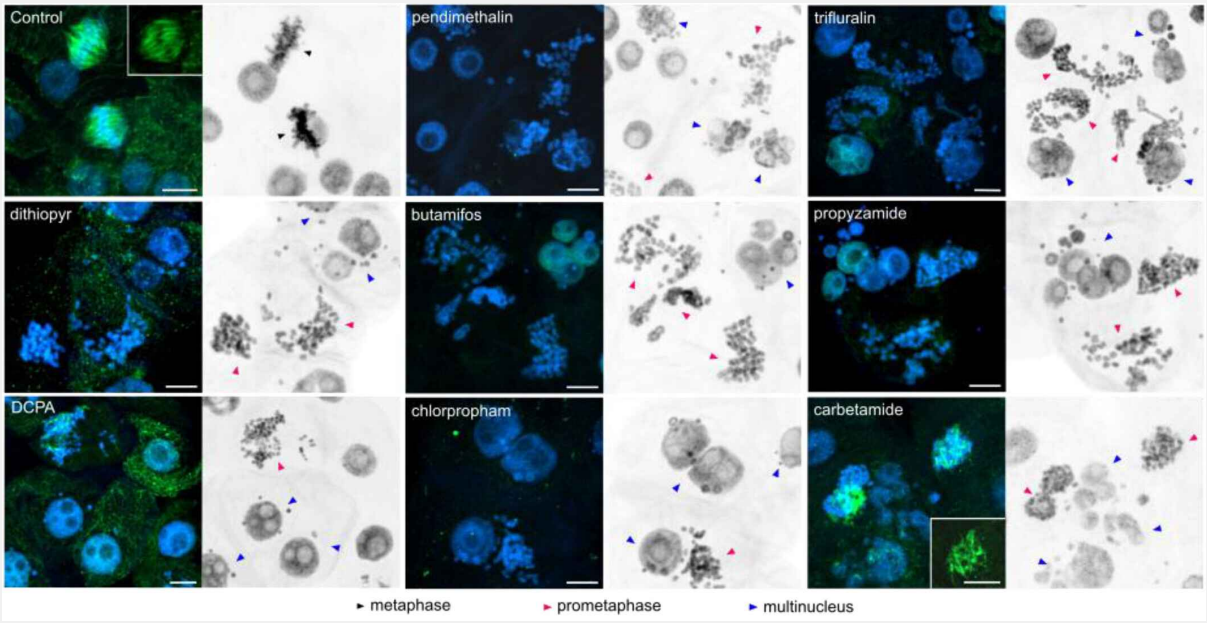
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Microtubule herbicides have distinct resistance profiles

Study supports new classification of HRAC groups 3 and 23 and change in propyzamide

03.09.2026 | 09:30 (UTC -3)

Cultivar Magazine



doi 10.1002/ps.71261

Microtubule-inhibiting herbicides produce similar cellular effects but exhibit distinct resistance profiles. This finding reinforces a revision in the classification of the

Herbicide Resistance Action Committee (HRAC). Group 3 now includes compounds linked to alpha-tubulin. Propyzamide left this group and moved to Group 23, which is intended for herbicides that interfere with microtubules and whose site of action is not yet clear.

Researchers evaluated 15 herbicides from different chemical families (doi 10.1002/ps.71261). The analysis combined subcellular phenotyping in Nicotiana tabacum cultivar Bright Yellow 2 cells and resistance tests in Eleusine indica and Chlamydomonas reinhardtii. The work sought to compare the products under the same experimental system.

The previous classification separated compounds into microtubule assembly

inhibitors, in Group 3, and microtubule organization inhibitors, in Group 23. This division considered observed differences in cellular architecture. Carbamates such as chlorpropham and carbetamide, for example, had been associated with the formation of multipolar spindles without evident microtubule depolymerization.

New trials

The new assays did not support this separation based on cellular phenotype. All herbicides evaluated produced a similar sequence of changes according to the dose. At lower concentrations, mitotic spindles with abnormal organization appeared. Intermediate doses induced multipolar spindles. Increasing the

concentration led to a reduction in the number and length of microtubules. The highest doses promoted intense depolymerization.

The treatments also reduced the occurrence of normal mitotic phases. The cells accumulated alterations such as interruption of division in prometaphase and the formation of multinucleated cells. Anaphase appeared infrequently in the treatments. According to the researchers, the similarity of the effects prevents a reliable classification of the herbicides based solely on the subcellular response.

Potency of compounds

The potency of the compounds varied. Oryzalin showed the highest activity in the cell growth assay. Its estimated mean inhibitory concentration reached 0,28 micromol per liter. Other products required higher concentrations to produce comparable responses. This difference led the team to individually adjust the doses used in the microtubule analysis.

Resistance profiles showed a clearer distinction between herbicides. In Eleusine indica, the T239I mutation in alpha-tubulin conferred strong resistance to the dinitroanilines pendimethalin, trifluralin, prodiamine, butralin, benfluralin, and oryzalin. The same pattern appeared with dithiopyr, thiazopyr, butamifos, and DCPA.

The T239I mutation did not confer resistance to propyzamide. The mutant plants maintained sensitivity similar to the wild-type population. The same occurred with the carbamates carbetamide and barban. For chlorpropham, the study recorded slight hypersensitivity at some concentrations. The set of results indicates a shared site of action among the current members of Group 3 and a different behavior for propyzamide and carbamates.

Expanded analysis

The team expanded the analysis to include mutations in the beta-tubulin of Chlamydomonas reinhardtii. The substitutions E198K, I236N, K350E, and I368F were evaluated. All conferred strong

resistance to propyzamide. No other herbicide showed this same pattern for all mutations.

Responses to other compounds varied according to the alteration in beta-tubulin. Some mutations increased resistance to trifluralin, pendimethalin, and dithiopyr. Others increased sensitivity. The researchers attribute this complexity to the influence of mutations on the formation of the heterodimer composed of alpha and beta-tubulin.

Redefining Group 3

The data support redefining Group 3 as microtubule assembly inhibitors with alpha-tubulin binding. They also support

transferring propyzamide to Group 23. In this group, HRAC came to include herbicides linked to microtubule interference, but without a precisely defined site of action.

For resistance management, the study highlights the importance of the site of action. Herbicides capable of generating the same cellular effect may interact with different targets within the microtubule system. Thus, the visual similarity of cellular damage does not, in itself, imply the same resistance profile.

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Yara Brasil appoints new Institutional Affairs Manager

Filippo Scelza leaves Nissan and takes on government relations and sustainability strategies

03.09.2026 | 08:36 (UTC -3)

Cultivar Magazine



Filippo Scelza (pictured) has assumed the position of Institutional Affairs Manager at Yara Brasil. In his new role, the executive

will be responsible for leading the company's Government Affairs and Corporate Sustainability strategies.

According to Scelza, the new position broadens his scope of work and responsibility regarding issues related to business strategy and the development of Brazil. He also highlighted the importance of working in the fertilizer and chemical sector, focusing on topics such as agribusiness competitiveness, food security, and sustainable development.

Before joining Yara, Scelza worked for approximately two years as Manager of External and Governmental Affairs at Nissan, where he led relationship strategies with the Federal Government, the National Congress, and sectorial

entities. His professional experience totals 14 years working at the interface between the public and private sectors.

Scelza holds a master's degree in Public Administration, specializing in Public Policy, from FGV Ebape and the Università degli Studi di Bergamo.

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Massey Ferguson unveils N-Series planter in the USA

The model for narrow and split rows combines precision planting technologies and a modular platform

02.09.2026 | 14:09 (UTC -3)

Cultivar Magazine, based on information from Bob Blakely



Massey Ferguson unveiled its new N Series planter line for planting in narrow and split rows during the Farm Progress

Show 2026 in the United States. The line combines factory-installed Precision Planting technologies with a modular platform, offering six configurations: 23-15, 24-15, 31-15, 32-15, 24-20, and 24-22.

According to the company, the project was developed to offer configuration flexibility and facilitate operation and maintenance, while maintaining features focused on precision in distribution and uniformity of plant emergence.

“Farmers want proven technology without unnecessary complexity,” said Forrest Francis, Tactical Marketing Manager for Planters at Massey Ferguson North America. “The N Series offers the performance producers need today, while giving them the flexibility to adapt as their

operations grow. It’s about putting technology to work where it can make a significant difference, while keeping the planter simple to own, operate and maintain.”

Among the factory-installed features are the 20|20 Gen3, vSet2, vDrive, and DeltaForce technologies, which work on seed placement, planting depth control, and emergence uniformity.

The N Series also features two central seed hoppers, each with a capacity of 45 bushels, plus an option for up to 500 gallons of liquid fertilizer. The manual weight transfer system, controlled from the cab, allows for adjusting the load distribution according to field conditions.

Modular platform

The N-Series platform allows for the inclusion of optional technologies according to the producer's needs. These include WaveVision, SpeedTube, CleanSweep, EMHD, and Pump Stack.

According to Massey Ferguson, the goal is to allow planters to be upgraded over time without having to replace the entire machine. The line also features Heads Up planting units, lubrication-free operation, and simplified adjustments, in addition to not requiring subscriptions or unlocks to use the available features.

The N Series was one of the new products presented by Massey Ferguson at the AGCO booth, number 1002, during the

Farm Progress Show. The space also featured updates to other machines from the brand, such as the MF 9S tractors, which received the Tractor Implement Management System (TIM) and the MF AutoHeadland.

Another highlight was the MF 5S line, which now features the Dyna-VT continuously variable transmission, in addition to new features for the Massey Ferguson double baler.

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Greening registers smallest advance in nine years in São Paulo

The increase was 0,45 percentage points, compared to a rise of 3,28 points in the previous Fundecitrus survey

02.09.2026 | 08:35 (UTC -3)

Paulo Júnior, Cultivar Magazine edition



The spread of citrus greening in the citrus belt of São Paulo and the Triângulo/Sudoeste Mineiro region slowed

in 2026. According to a survey by the Citrus Defense Fund (Fundecitrus), the incidence of the disease increased from 47,63% in 2025 to 48,08% this year, a rise of 0,45 percentage points — the smallest increase recorded in the last nine years. In the previous survey, the increase had been 3,28 percentage points.

Despite the slowdown, the incidence rate remains high and requires continued control measures. According to Fundecitrus, the improvement is related, among other factors, to the control of the psyllid, the insect vector of the bacteria that causes citrus greening, the renewal of orchards, and climatic conditions less favorable to the spread of the disease.

In São Paulo, the Agricultural Defense agency maintains inspection and monitoring actions in orchards, in addition to controlling the production and commercialization of seedlings. In 2025, approximately 222,7 million plants were inspected, with 4,42 million being eliminated. Between 2023 and 2025, more than 667 million plants were inspected and 14,1 million were eliminated.

Prevention and control of HLB

The state also updated the rules for HLB prevention and control. In May of this year, a resolution made it mandatory to register properties with citrus plants with the

Agricultural Defense agency and established new monitoring rules. The regulation also differentiated the requirements for eliminating symptomatic plants according to the incidence of the disease in the municipalities.

Control of the citrus psyllid remains mandatory throughout the state of São Paulo. Between August and November, the period of greatest sprouting, the risk of dissemination increases due to the insect's increased feeding, multiplication, and migration, according to Fundecitrus.

Accessible credit and the role of research

In addition to oversight, the São Paulo state government offers credit for the renewal of orchards or the replacement of compromised areas. For the 2026/27 harvest, the "Sustainable Plant Production in São Paulo" line of credit, from the São Paulo Agribusiness Expansion Fund (FEAP), covers the establishment and renewal of orchards, including expenses for the eradication of areas affected by citrus greening. This line has R$ 30 million available for actions related to plant production, plant health, and orchard recovery.

The research is also part of the strategy to combat the disease. The Center for Applied Citrus Research (CPA Citros) brings together public and private investments estimated at R$ 90 million,

with participation from the "Sylvio Moreira" Citrus Center of the Agronomic Institute (IAC), as well as Fapesp, universities, Fundecitrus, CitrusBR and other representatives of the sector.

São Paulo accounts for approximately 80% of Brazilian orange production, making the control of citrus greening one of the main sanitary challenges for citrus farming in São Paulo.

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Amino acids affect feeding and reproduction of Ceratitis capitata

Arginine and methionine increased food intake and improved reproductive parameters in the insect

02.09.2026 | 05:38 (UTC -3)

Cultivar Magazine



Photo: USDA Agricultural Research Service/Bugwood

Essential amino acids alter food intake and reproductive parameters in adult Ceratitis capitata. A study identified increased phagostimulation with methionine, arginine, phenylalanine, threonine, and lysine. A mixture of non-essential amino acids also increased consumption.

Researchers evaluated individual amino acid solutions with 7,5% fructose. The trial measured intake over five days. Methionine increased consumption rate by 45,2% compared to the solution with fructose alone. Arginine increased the rate by 38%. Phenylalanine, threonine, and lysine also showed a significant effect.

The study also analyzed egg laying and hatching. Lysine increased egg production by 68,1% compared to fructose. Arginine,

methionine, and histidine reduced the likelihood of periods without egg laying. These amino acids promoted greater consistency in reproductive activity.

Hatching responded more strongly to some treatments. Arginine increased the chance of hatching by 18,3 times compared to fructose. Methionine increased this chance by 12,3 times. Phenylalanine and histidine also showed a positive effect. Yeast hydrolysate with fructose, used as a positive control, showed the best overall performance.

The results suggest a possible application in mass rearing for the Sterile Insect Technique. The researchers highlight arginine for its effect on feeding and reproduction. The use of this amino acid as a supplement for sterile males still

requires further studies before application in operational programs (doi 10.1111/phen.70063).

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Bayer expands pipeline with focus on soybeans, corn and pesticides

Intacta 5+ targets 2027/28; Plenexos advances in Brazil and Icafolin is scheduled for launch in 2028

02.09.2026 | 01:00 (UTC -3)

Cultivar Magazine



Bayer is moving forward with a plan to launch ten agricultural products with the potential for sales exceeding €500 million each at peak sales. The strategy encompasses seeds, biotechnology, pesticides, and digital tools. For Brazil, the most immediate projects include Intacta 5+ soybeans, the Plenexos insecticide, and the Icafolin herbicide. The company presented this information during the Bayer Innovation Showcase, held in Huxley, Iowa, in the United States.

The forecast for the commercialization of Intacta 5+ soybeans in Brazil remains unchanged, starting with the 2027/28 crop season. Bayer presented the technology in the country in November 2025, at the company's innovation center in Paulínia, São Paulo (learn more here). The

biotechnology has already received Brazilian authorization. Commercial availability still depends on approvals in importing countries. The company intends to start offering at least 13 varieties adapted to the main producing regions. In the first two years, the portfolio could exceed 200 varieties.

The platform combines tolerance to five herbicides: glyphosate, dicamba, mesotrione, glufosinate, and 2,4-D. The insect protection package utilizes five proteins and expands management to nine caterpillar species. The proposal aims to increase alternatives for weed and insect control programs under Brazilian conditions.

Vyconic in the United States

Bayer is also preparing to introduce Vyconic in the United States and Canada. The launch is scheduled for 2027 (learn more here). The platform will combine tolerance to the same five herbicides and will utilize materials from the company's breeding program. The company aims to increase flexibility in managing resistant weeds. Intacta 5+ and Vyconic are part of a global strategy for new generations of soybeans. According to Bayer, the combination of these technologies and future herbicide tolerance and insect protection features has a sales potential exceeding 3 billion euros at its peak.



Speaking about Vyconic, Brian Naber, president of Bayer Crop Science for North America and Australia, points to two factors behind the development of new technologies for weed management: increasing herbicide resistance and greater difficulty in carrying out applications at the appropriate times.

According to Naber, resistance and tolerance have grown over time for virtually all available chemical molecules. Weather conditions have also begun to limit field operations. In the area where he explained the issue, in Huxley, the annual rainfall reached 1.117 millimeters. For the executive, this scenario led producers to miss application windows.

Viconic aims to increase operational flexibility. The system allows farmers to work with different control alternatives when weather conditions prevent the initial plan.

Bayer is also preparing new stages for its portfolio. The HT5 technology is expected to incorporate a trait of tolerance to PPO-inhibiting herbicides. HT6 is expected to

include Icafolin.

According to Naber, producers are already showing interest in Viconic. The executive states that productivity is the main deciding factor, followed by flexibility in weed management.

The launch is expected to cover different production environments. Bayer intends to offer cultivars adapted from the northernmost producing regions of the United States and Canada to the southernmost areas of the North American soybean belt. The strategy seeks to position germplasm according to each production environment.

Insecticides: Plenexos

In the insecticide segment, Plenexos has already entered the Colombian market. Mexico, Brazil, and the United States appear among the next markets planned by the company. At the Andav 2026 Congress, held in August, Bayer reported that the product remained in the final registration phase in Brazil (learn more here). The platform contains pidoxamate (learn more here) and has an initial focus on whitefly management. The planned portfolio for the country includes soybeans, cotton, citrus, tomatoes, potatoes, and beans. Targets also include aphids and citrus psyllid.

The company highlights Plenexos' performance on different nymphal stages and its selectivity towards beneficial organisms. This characteristic allows for

integration with integrated pest management programs and biological control. The platform also offers systemic action and provides for different application methods, depending on the crop and target.

Studies presented by Bayer indicated a reduction of up to 75% in the amount of active ingredient compared to other products. The evaluation considered more than 600 internal and external experiments conducted in Brazil between 2021 and 2025. In studies with whitefly in soybeans, Plenexos used 24 grams of active ingredient per hectare. The comparative treatment with imidacloprid used 100 grams of active ingredient per hectare. The company projects a sales potential of 500 million euros for Plenexos by the mid-

2030s.



And why did the product debut in the Colombian market? Mauricio Rodrigues, president of Bayer Crop Science in Latin America, explained that it was due to an opportunity presented by the environment and the team's work, but not a specific company decision. He considered the

debut in that market important because it allowed for learning in a considerably large area, something fundamental for preparing the product launch in other markets.



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Herbicide: Icafolin

Another project with a direct impact on the Brazilian market involves Icafolin. Bayer plans to launch it in the country in 2028 (learn more here). Brazil is expected to receive the technology before other markets. The company has already filed regulatory applications in the country. The

molecule has been classified in Group 23 of the Herbicide Resistance Action Committee (HRAC) and acts on the microtubule organization of weeds (learn more here).

Bayer presents Icafolin as the first new mode of action in over 30 years for post-emergence weed control in major crops. The development aims to expand options against populations resistant to glyphosate and other herbicides. The molecule has an estimated sales potential of €750 million at its peak, projected for the mid-2030s.

Icafolin also represents a new stage in the development of biotechnological traits. Bayer has begun to develop the herbicide and the genetic trait for tolerance to the product in an integrated manner. This

strategy aims to reduce the traditional gap between the discovery of a crop protection molecule and the creation of a compatible biotechnological trait.



According to Mike Graham, head of crop science research and development at Bayer, the historical model began with chemistry. The team first evaluated the

herbicide's performance. The development of the tolerance trait came later, with a significant time difference between the two approaches.

The new approach starts with the genetic sequence of weeds. Researchers use this data to identify proteins produced by the plant and potential targets for new herbicides. The same information guides the design of the biotechnological trait intended to confer tolerance to the selected mechanism of action.

The chemistry and biotechnology teams began working on the same database. One group identifies the target and develops the herbicide. Knowledge about the mechanism of action is then passed on to the team responsible for the genetic

characteristics. This group develops a solution capable of tolerating the product's action.

Graham classifies this integration as a significant change in the research process. According to him, progress depends on computational resources and artificial intelligence. These tools allow for the conversion of genetic sequence information into proteins, the identification of targets, and support for the development of crop protection products.

Biotechnology and resistance

According to Graham, combining biotechnology with crop protection

solutions can slow the rate at which resistance advances in the field. The strategy involves the simultaneous use of different modes of action against the same target.

Graham cites Asian soybean rust as an example. According to him, some older molecules used in crop protection no longer perform as well as they did in the past.

According to the researcher, combining a crop protection solution with a biotechnological solution can broaden management options. The goal is to avoid dependence on a single mode of action against the pest or disease of interest.

The company works with the proposal of broadening the spectrum of control

through multiple mechanisms applied to the same problem. Graham relates this approach to innovations in fungicides.

The executive also cites genome editing as a possibility for managing Asian soybean rust. In this scenario, the tool could work in conjunction with crop protection solutions.

According to Graham, using two approaches against the same problem can create a different spectrum of resistance management compared to strategies adopted in the past.

CropKey Platform

The development of Icafolin utilized the CropKey platform. The system applies

artificial intelligence to discover modes of action and design molecules. The approach evaluates efficacy, safety, and sustainability from the early stages of research. According to Bayer, more than 15 new modes of action are in the research phase of the crop protection pipeline.

Among the projects is a new broad-spectrum fungicide for soybeans. The product has advanced to phase two of the pipeline and has the potential to join the company's group of blockbusters. Bayer is also developing a new triazole fungicide for corn, soybeans, and cereals. The project aims to expand the control of foliar diseases and prolong residual activity.

Preceon Smart Corn

In corn, the Preceon Smart Corn system is marketed in Mexico, Italy, Spain, and the United States. The technology uses shorter plants (learn more here). The proposal aims to reduce risks associated with strong winds and expand access for ground machinery during the growing cycle. The system also allows for adjustments to planting density and integrates agronomic recommendations into FieldView. Overall, it involves minimizing plant height and providing specific recommendations for each plot regarding product allocation and planting density.

Bayer Crop Science expects to double the area planted with Preceon corn technology in the United States in the next growing season. The company currently maintains approximately 81 hectares in the field and projects reaching 2,02 million hectares by 2030, according to Brian Naber, president of Bayer Crop Science for North America and Australia.

Preceon corn plants are about one-third shorter. While conventional hybrids reach heights of 2,7 to 3,7 meters in the United States, these technologically enhanced varieties reach 1,8 to 2,1 meters.

The change also involves the root system. According to Naber, the plant directs less energy towards the growth of the aerial part and develops larger, deeper roots that

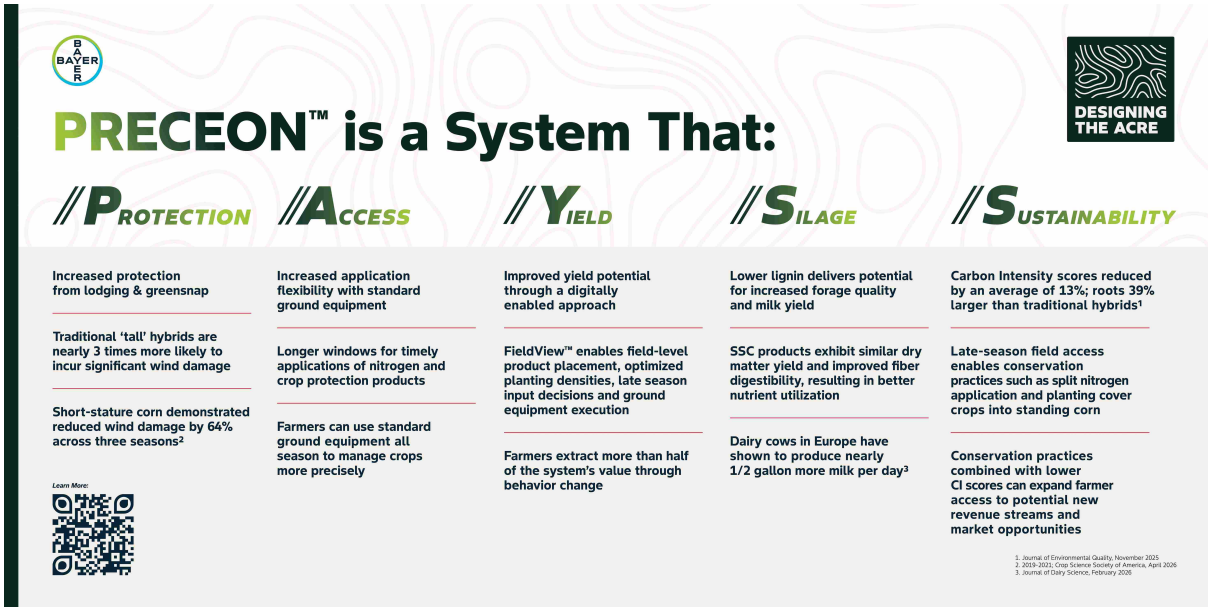
grow faster. This characteristic increases the capacity for absorption of water and nutrients.

The ear of corn is also inserted closer to the ground. The lower center of gravity increases the crop's resistance to strong wind events. The company positions the system for production under extreme weather conditions.

The plant's architecture also allows for increased population density. The recommendation involves a 10% to 20% increase in the number of plants per hectare. Fertility management should follow this change. Modern hybrids require a greater supply of nutrients in later stages, with adjustments to the timing and placement of applications.

The lower height also facilitates fungicide applications with machines already available on the farms. In tall corn fields, according to Naber, some interventions require aerial equipment.

The technology has entered its third year of commercialization. The current areas are expected to be harvested in the coming weeks.



Also in the United States, Bayer continues the development of the fourth generation of protection against corn wireworms, identified as CRW4. The technology combines an enhanced mode of action based on RNA interference with two new proteins targeting the pest's gut. According to the company, one of these proteins represents the first new protein-based mode of action against the insect in more than two decades.

Genome editing

The soybean pipeline also includes genome editing. Bayer is working on plants with an architecture focused on reducing lodging. The project seeks to reconcile higher yield potential with better plant

support. The company applies genome editing in the initial stages of the breeding program and anticipates new commercial concepts at the beginning of the next decade.

The company reports launching 400 to 500 new hybrids and varieties annually. Bayer attributes this pace to a precision breeding platform supported by artificial intelligence. According to the company, the system doubles the rate of genetic gain compared to historical breeding and triples the time new materials reach the market.

Investments in research are part of the Five-Year Framework, a plan presented by Bayer in 2025 to expand growth, resilience, and profitability of its agricultural division. The company reports cost

reductions of approximately €400 million and a decrease in inventory of €500 million. It also sold five active ingredients and removed more than 100 formulations from its crop protection portfolio.

Use of technologies

Alongside research and development issues, there is a need to ensure the correct use of products. Bayer emphasizes the adoption of new pesticides, seeds, and biotechnologies with guidance for farmers. The company maintains approximately 25 mapped producers in Brazil and uses technical teams and promoters to explain the use of new solutions, explains Marcio Santos, CEO of Bayer Brazil.



"Our team's role on a daily basis is to be in contact with the farmer, showing them how each innovation works. Innovation is something different from what existed before, therefore it requires a new way of using it. So what we talk about most with our team is our role in leading the producer to the best experience with our product. All so that, at the end of the day, they can

obtain the expected economic return," he explains.

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Gabriel Vieira will now lead strategy and innovation at Ruveon

Executive with eight years of experience at Bayer assumes global leadership of the company's strategy and innovation

01.09.2026 | 17:12 (UTC -3)

Cultivar Magazine



The global strategy for Ruveon's glyphosate business will now be led by Gabriel Vieira Fernandez Pereira Silva

(pictured). The executive recently assumed the position of Head of Strategy and Innovation at the Bayer Group subsidiary dedicated to glyphosate, based in St. Louis, Missouri, in the United States.

The role encompasses responsibilities such as portfolio management, market intelligence, innovation, regulatory strategy, and partnership development. Gabriel will also participate in defining investment and development priorities and in supporting the decisions of the company's board of directors and council.

Before joining Ruveon, the executive built an eight-year career at Bayer, where he held various positions related to finance, strategy, and business management. Most recently, he served as Executive Director

of Glyphosate Strategy and Asset Optimization, leading initiatives related to long-term strategy, portfolio management, partnerships, and business transformation.

With over ten years of experience in agribusiness, Gabriel also has experience in financial planning, commercial operations, and product management. He holds a degree in Economics from PUC Minas and a master's degree in Financial Management from Insper.

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LS Tractor presents new MT3 series of tractors at Expointer

50 hp and 65 hp models expand the brand's options for properties in the South

01.09.2026 | 16:07 (UTC -3)

Kassiana Bonissoni



LS Tractor arrives at Expointer 2026 with a strategy focused on renewing its portfolio and expanding mechanization options for different producer profiles. Among the

brand's main new products is the first-hand presentation of the new MT3 series, composed of 50 hp and 65 hp models, in addition to the presence of the Plus PRO series, recently launched in the Brazilian market.

Considered one of the most traditional agribusiness events in South America, Expointer, which will be held from August 29th to September 6th in Esteio, Rio Grande do Sul, occupies a strategic position on LS Tractor's calendar. For the South Korean multinational with a Brazilian heart, the fair represents an important meeting point between different audiences and segments, in addition to being important on the agenda of major events related to livestock and agriculture in Brazil.

According to Felippe Vieira, commercial director of LS Tractor, due to its history and relevance, Expointer is one of the main agribusiness events. “It’s a multi-sector fair that brings the countryside closer to the city and unites producers, companies, and the entire production chain. That’s why we always strive to bring new products and reinforce our presence at the event,” he states.



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New products for restricted spaces

The big news from LS Tractor for Expointer 2026 will be the presentation of the new MT3 series. With 50 hp and 65 hp models, the line was developed to meet the needs of agricultural activities that require compact, agile equipment capable of operating in areas with restricted space. "The models are suitable for applications such as vineyards, orchards, poultry farms, and other activities that demand mechanization in locations with limited circulation and maneuverability," highlighted Vieira.

Despite its compact dimensions, the MT3 series incorporates technologies and features focused on comfort and operational efficiency. The goal is to offer producers an alternative to expand the

mechanization of activities on properties with areas that are difficult for larger machines to access.

The Plus PRO series strengthens the portfolio.

Another highlight for the brand during Expointer will be the new Plus PRO series, presented to the Brazilian market during Agrishow 2026, held in Ribeirão Preto (SP). The line features models from 80 hp to 105 hp and arrives to replace the acclaimed Plus series. The new tractors use Perkins engines and LS transmissions, combining components recognized by the market with technology

developed by the South Korean manufacturer.

The arrival of the new series is part of the company's strategy to continuously expand and update its product line, seeking to meet different mechanization needs in the field. Currently, LS Tractor has 11 different models produced in Brazil, with various configurations and power outputs ranging from 25 hp to 150 hp, covering more than 70% of the Brazilian agricultural machinery market.

More than 35 tractors produced in Brazil.

Present in the country since 2013, LS Tractor has already surpassed the mark of

35 tractors produced in Brazil. The company manufactures its entire portfolio locally and currently has more than 90 sales points distributed throughout the country.

The strategy of national production and network expansion aims to bring the brand closer to the producer and ensure greater agility in service, technical support, and parts replacement. "From the beginning of operations in Brazil, our concern has been to bring technology and produce locally, offering producers modern machines while simultaneously allowing access to the main financing lines available on the market," explains the commercial director of LS Tractor.

Credit and investment can boost mechanization.

In addition to new products, LS Tractor is positively monitoring the prospects for increased investment in the agricultural sector. The 2026/27 Harvest Plan foresees R$ 525,1 billion in rural credit for agribusiness, with R$ 140,2 billion earmarked for investments. For family farming, the forecast is R$ 85,2 billion in resources for Pronaf operations, including modalities focused on mechanization.

Programs such as Moderfrota, Pronamp, and Inovagro are among the available alternatives to support investments and modernization of rural properties. In

addition to traditional credit lines, LS Tractor also works with its own alternatives to facilitate producer access to mechanization, including the LS Tractor National Consortium.

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Kuhn highlights precision seeding and spraying at Expointer

Technologies aim to increase the efficiency of operations and reduce the waste of inputs in the field

01.09.2026 | 15:38 (UTC -3)

Bruna Garcia



In a scenario of continuous pursuit of reduced operational costs and increased productivity per hectare, Kuhn do Brasil

presents at Expointer technological solutions geared towards two of the most critical moments of the production cycle in the southern region: planting and phytosanitary protection. The event, from August 29th to September 6th, will also feature a series of machines at the Kuhn stand focusing on high-performance nutrition, forage conservation, soil building, and precision livestock farming.

Agriculture in Rio Grande do Sul, Santa Catarina, and Paraná faces structural challenges that demand increasingly efficient machinery. The need to meet short operational windows, both in establishing winter crops and planting summer crops, coupled with the requirement for precise pesticide applications in areas with varied terrain,

places precision and robustness at the heart of agricultural management.

Aware of this scenario, Kuhn do Brasil is bringing to Expointer a positioning focused on solutions that guarantee accuracy in the implementation of plant stands and efficiency in sanitary management, reducing waste of inputs and maximizing the profitability of rural producers.

Agility and uniformity in grain planting

The success of a crop is largely defined in the first few days of planting. The challenge of covering large areas or quickly switching between plots without losing precision in the distribution of seeds

and fertilizers is one of the most recurring bottlenecks on farms in the south of the country.

To meet this demand, Kuhn is highlighting the Quadra 10.000 Pneumatic Seeder at Expointer, designed to reduce downtime for refueling and increase the daily capacity of planted hectares. By ensuring precise seed and fertilizer deposition even at high speeds, the equipment guarantees uniform crop emergence, considered the first step towards achieving maximum productivity and maximizing the producer's return on investment.



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Efficient protection and technical adaptability in crop management

In addition to precise planting, protecting crops against pests and diseases requires equipment capable of overcoming operational bottlenecks specific to the southern topography. In undulating or uneven terrain, the balance between traction capacity, reduced soil compaction, and high application precision is essential to protect the crop's productive potential without wasting resources.

At Expointer, Kuhn is highlighting the Boxer 2000 H self-propelled sprayer. This model combines fuel economy and lightness to traverse uneven terrain without

damaging crops or compacting the soil. The combination of robust hydro-traction, active suspension, and adjustable ground clearance translates into more working hours per day with total operator comfort, ensuring crop protection at the precise moment and without wasting pesticides in steep areas.

"Producers in the South are looking for technologies that translate into concrete results. At Expointer, we reinforce our commitment to delivering equipment that ensures flawless planting and efficient sanitary management, protecting every stage of the crop's productive potential," emphasizes José Carlos Bassetti, Division Manager of Products, After-Sales and Marketing at Kuhn do Brasil.

Kuhn's complete portfolio at Expointer

In addition to highlighting seeding and crop protection solutions, visitors to the Kuhn booth at Expointer will be able to see the complete line of equipment on display, covering all stages of agricultural production:

- Sowing and Planting: Quadra 10.000, Oriza 32, Colina 5, Flex 10 (10 rows of 45 cm / 2 modules) and PG 9.
- Crop Protection: Boxer 2000 H, Fighter 2.500 and Gardien 800; Fruit Growing: Arbo 400 (coupled) and Arbo 2000 (trailer), Ranger 2000 (tandem wheels)

- Soil Preparation and Nutrition: Stinger (5 stems), Accura 1.600
- Haymaking and Forage Production: VB 3260, GMD 310
- Livestock and Management: Profile 6.1, Grain Max 16.000

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Baldan expands access to technology at Expointer 2026

The company brings together solutions, credit, and special conditions to facilitate investments in the agricultural sector

01.09.2026 | 11:31 (UTC -3)

Larissa Rodrigues de Jesus



At a time when financial planning has become a decisive factor in the modernization of rural properties, between

August 29th and September 06th, Baldan arrives at Expointer 2026, in Esteio (RS), with a proposal that goes beyond the exhibition of agricultural machinery and implements. The company will present, in the Baldan Barn, a space focused on generating business, bringing together technological solutions, different financing options, and special conditions to facilitate access for producers.

During Expointer, the Baldan Barn brings together the company's four core areas of operation: soil preparation, planting, spraying, and parts, allowing visitors to learn about the entire ecosystem of solutions developed by the company to meet different stages of agricultural production.

Different ways to make the investment viable

Aware of the current economic scenario, marked by high interest rates and greater credit restrictions, Baldan has structured a diversified portfolio of financial solutions to expand producers' access to agricultural mechanization. The strategy brings together different acquisition methods, such as the Move Agrícola program, consortia, and traditional financing lines, offering alternatives compatible with different producer profiles and investment stages.

One of the major highlights is the Move Agrícola program, an initiative that seeks to stimulate the modernization of the

Brazilian machinery fleet through differentiated credit conditions. Baldan is currently the manufacturer with the largest number of implements enabled in the program, with 172 accredited pieces of equipment, allowing rural producers to finance investments with Finep resources under very competitive conditions. The line offers financing of up to 100% of the equipment value, with an interest rate of TR + 7,120% per year, considered one of the most attractive currently available for the acquisition of agricultural machinery and implements.

Another highlight is the campaign "The future of your harvest starts now," which offers special conditions for acquiring the complete Avola line, with payment terms of up to three years and immediate delivery.

In addition, visitors can choose from different negotiation options, according to their financial strategy.

The barter system, carried out in partnership with Grão Direto, allows the use of grains, such as soybeans and corn, as a down payment for the purchase of farm equipment, reducing the need for immediate outlay and preserving the farm's cash flow. For those who prefer traditional credit lines, Baldan will offer financing with rates starting at 2,5% per year, providing competitive alternatives even in a high-interest rate environment.

The company will also present consortium options for producers and resellers, with rates starting at 7% per year and terms of up to 120 months, expanding planning possibilities for long-term investments. As

an additional benefit during the fair, producers and resellers will receive a 5% discount on the purchase of Milwaukee tools, an official after-sales partner of Baldan.

"Throughout almost a century of history, we have learned that innovation only makes sense when it actually reaches the field. Therefore, in addition to developing technologies tailored to increase productivity, we seek to offer different solutions that make this investment viable for producers of all profiles. Our commitment is to stand alongside the farmer, understanding their reality and contributing to ensuring they have access to the necessary tools to produce more efficiently and competitively," says Fernando Capra, CEO of Baldan.

Expointer is one of the main showcases of Brazilian agribusiness and a strategic meeting point for producers, cooperatives, dealerships, and companies in the sector. “The Baldan Barn was conceived as an environment for relationship building and business, bringing together clients, partners, and company specialists. We want each visitor to find not only machinery and implements, but also alternatives that make their investments safer, more planned, and better suited to the reality of their property,” concludes Capra.



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John Deere launches AI assistant for agricultural data analysis

JD integrates with the Operations Center and answers questions based on field data, machines, and operations

01.09.2026 | 05:24 (UTC -3)

Cultivar Magazine, based on information from Derik Morgan



John Deere introduces JD, an artificial intelligence assistant integrated into the

Operations Center, in the United States. The tool allows producers to consult historical field, machine, and operational data by asking questions in natural language. The system aims to transform this information into answers applicable to agricultural management.

JD can compare fuel consumption in soil preparation operations over the years. It can also assess singulation between areas and relate the results to productivity. Other applications include analyzing the performance of sprayer operators and determining the harvest period based on historical trends.

According to John Deere, the feature reduces the need to consult different dashboards and reports. The answers use

data from the agricultural operation itself.

The company also released the Farmer Data Commitment, a set of ten principles for data use. The policy keeps the producer in control of the information and provides for transparency regarding data use. John Deere states that it does not sell agricultural data nor use it for trading or speculation in commodities. The producer can choose third parties with access to the information and stop this sharing.

The company has launched a limited early access program for select agricultural customers in the United States. It anticipates expanding access further in 2026 through the Operations Center on the web and mobile devices. The company also plans to make JD available on in-cab monitor interfaces.

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Jacto brings new drones and spraying technology to Expointer

The T55 and T100, featuring dual batteries and the BalanceControl system, are among the brand's highlights

31.08.2026 | 17:34 (UTC -3)

Sibelle Freitas



Jacto announces at Expointer, which takes place from August 29th to September 6th at the Assis Brasil Exhibition Park in Esteio

(RS), the expansion of its portfolio of agricultural drones. In partnership with DJI since 2024, the company will now offer the new T55 agricultural drone and the T100 agricultural drone with dual batteries, a solution that extends flight time and provides greater autonomy for operations in large areas.

“The new equipment joins the models already distributed by Jacto, the T70 and T25P agricultural drones and the Mavic 3M imaging drone, expanding the range of solutions for different operational profiles in the field. With technologies focused on spraying, solid distribution and cargo transport, the models reinforce the company's strategy of providing equipment that combines operational efficiency, precision and versatility,” says Rodrigo

Madeira, Jacto's product planning manager.

The T55 model is a lightweight and intuitive agricultural drone designed for individual spraying, solids distribution, and aerial cargo transport operations. With a 50 L spraying capacity, a 55 kg solids distribution capacity, and a payload of up to 40 kg in the lifting system, it can be transported, mounted, and operated by a single person. The equipment reaches a maximum speed of 72 km/h, a flow rate of up to 50 L/min in spraying, and a discharge rate of up to 400 kg/min in solids distribution, offering high operational efficiency. It also incorporates millimeter-wave radar, a quad vision system, and enhanced algorithms that ensure greater safety, intelligent obstacle avoidance, and

reliable operation even in rain, fog, or low light conditions.

The T100 drone with Dual Battery was developed to increase efficiency and productivity in the treatment of large agricultural areas. With two intelligent batteries, flight time is extended by 50% for the same load, providing greater autonomy and continuous operation. In the solid distribution system, it offers a payload capacity of 100 kg with a flow rate of up to 400 kg/min. In the lifting and cargo transport system, the capacity is up to 80 kg. In the dual battery configuration, the spraying system operates with a 90 L tank and a flow rate of up to 40 L/min, and can be configured with 2 spraying system models, ensuring versatility and efficiency

in different agricultural applications.

BalanceControl and evolution of the Uniport line

Regarding self-propelled spraying, visitors will be able to learn about BalanceControl technology, a patented boom stability system available for the Uniport 3030 and 4530 sprayers, with 32- and 36-meter booms.

The solution integrates mechanical, hydraulic, and electronic components that adjust the position of the spray booms in real time according to the terrain. The result is an operational gain of up to 30%, with more working time at the ideal height.

Compared to conventional boom systems, BalanceControl provides up to 72% more coverage and 92% more droplet density per cm², a decisive factor for the effectiveness of contact pesticides.

Jacto also presents new specifications for the Uniport 2030 and 2530 sprayers, which now feature 11 application sections through MultiControl technology, promoting greater savings on pesticides. These models also incorporate the Unitrack directional system, which improves operational efficiency and reduces soil compaction, in addition to a track width adjustment from 3,05 to 3,6 meters, an option also available on the Uniport 3030.

Highlights of the Jacto portfolio at Expointer

Jacto will also showcase other solutions from its spraying, fertilization, and planting portfolio at its booth. On display will be tractor-mounted sprayers from the Arbus, Condor, and Advance lines, developed to meet the needs of various crops with technologies focused on application quality, loss reduction, and increased operational efficiency. Also highlighted will be the Uniport 5030 NPK fertilizer spreader, designed for high operational capacity and precise fertilizer distribution, and the Meridia 200 planter, geared towards high-performance planting.



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Massey Ferguson launches compact tractor for small farmers

The MF 2700 arrives on the market with models ranging from 35 hp to 60 hp, focusing on versatility

31.08.2026 | 17:09 (UTC -3)

Flavia Amarante



Massey Ferguson is participating in Expointer 2026 with a major new product:

the MF 2700 tractor, a new series aimed at small and medium-sized producers that expands the brand's presence in the compact tractor segment. During the fair, which takes place from August 29 to September 6 in Esteio (RS), the brand will present a portfolio that brings together machines, precision agriculture, connectivity and services to increase the efficiency of agricultural operations.

The launch of the MF 2700 reinforces Massey Ferguson's innovation strategy for 2026. Throughout the year, the brand will present new products in different categories, including tractors, planters, harvesters, sprayers, and precision agriculture solutions. These launches expand the range of solutions for producers with different profiles and

production systems.

"Our goal is to offer solutions that combine equipment, digital technologies, and services to make operations more efficient, economical, and productive, regardless of the size of the property," says Lucas Zanetti (in the video below), Product Marketing Manager at Massey Ferguson.

New series in the tractor portfolio. Resulting from a partnership with SDF, one of the leading global tractor manufacturers, the new MF 2700 series was developed to meet the needs of small producers and specialized activities, offering robustness, simplicity of operation and excellent cost-benefit ratio.

The models have power ranging from 35 hp to 60 hp, three-cylinder mechanical

engines and eight-speed transmission, providing ease of operation and low maintenance costs. Platformed, they are suitable for horticulture, fruit growing, grains, livestock, general services, among others.

"With the MF 2700, we are expanding our operations in a strategic segment and now serve producers who are looking for a compact, robust, and reliable tractor for different applications. It is a solution developed for the reality of the Brazilian field, maintaining the durability and performance attributes that characterize Massey Ferguson," highlights Zanetti.



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Solutions for all stages of production

In addition to launching the MF 2700, Massey Ferguson is showcasing technologies at Expointer designed to increase efficiency at all stages of agricultural production.

Among the highlights is the MF 9S, the largest and most powerful tractor series from the brand in Brazil, equipped with automation, connectivity, and telemetry features for large-scale operations. The

MF 5M and MF 6M tractor lines expand access to precision agriculture by making technologies such as autopilot and onboard connectivity available to a larger number of producers, in addition to offering simpler options with better cost-benefit.

The MF 3700 series caters to producers who demand greater power and versatility, with models ranging from 75 hp to 85 hp, four-cylinder engines, 8, 12, or 15-speed transmission options, 2WD or 4WD versions, and platform or cab versions. The line is suitable for crops such as grains, rice, citrus, livestock, fruits and vegetables, and general services.

In planting, the Momentum planter, in versions with 18 to 24 rows or 30 to 40 rows for large areas, incorporates

intelligent weight distribution and input control technologies, ensuring greater uniformity in plant emergence, reduced waste, and better use of operational windows. For smaller areas, Massey Ferguson also offers the MF 500 rigid planter, which provides high planting quality and offers several agronomic benefits.

The FarmEngage platform allows producers to monitor the performance of machines from different brands in real time within a single digital environment, bringing together agronomic and operational data that support decisions to optimize the use of fuel, fertilizers, and pesticides, as well as increase productivity.

During harvesting, the MF 9005S series of axial combine harvesters incorporates

improvements that provide better fragmentation and uniform distribution of straw, favoring direct planting of the following crop. The MF 500R sprayer combines precision application technologies to reduce input waste, minimize overlaps, and increase operational efficiency. The brand also offers haymaking solutions, developed to produce high-quality forage with greater operational efficiency.

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John Deere reinforces global leadership in harvesters

Alexander Schnöder takes over product marketing management for conventional models at the company

31.08.2026 | 17:00 (UTC -3)

Cultivar Magazine



Alexander Schnöder (pictured) recently assumed the role of Global Product Marketing Manager for conventional

harvesters at John Deere. He is based in Zweibrücken, Germany.

Schnöder has been with John Deere for over 11 years and has built his career in the company in roles related to customer support, product optimization, marketing, and product specialization.

Prior to her new position, she worked as a product specialist for non-conventional harvesters, a role she held since October 2024. Between 2021 and 2024, she was a Product Marketing specialist.

The executive began his career at John Deere in 2015 as a Customer Support Specialist. He also worked in customer support planning and product optimization.

Schnöder graduated as a technical product designer from the Stadt Köln Hans-

Böckler-Berufskolleg.

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Daniel Olivier takes over global soy strategy at Bayer

Executive with experience in seed production and regenerative agriculture will lead the global crop strategy

31.08.2026 | 14:25 (UTC -3)

Cultivar Magazine



Bayer has appointed Daniel Olivier (pictured) as its new global Soybean Strategy Manager. He will assume the role

in August 2026 and is based in St. Louis, Missouri, in the United States.

Olivier has over 20 years of experience in agronomy, seed production, technology, and strategy. Before assuming his new position, he worked for two years as a leader of Crop Systems for Regenerative Agriculture at Bayer.

Between 2022 and 2024, he was responsible for leading field production of crops such as corn, cotton, soybeans, and canola in North America. He also held roles related to commercial seed production and the integration of operations following the merger of Bayer and Monsanto.

The executive began his career at Monsanto in 2005 as a production

research specialist. He holds a bachelor's and master's degree in Agronomy and Crop Science from Texas Tech University.

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Valtra brings new machines and technologies to Expointer 2026

The portfolio includes solutions for planting, spraying, and operations in different soil types

31.08.2026 | 11:31 (UTC -3)

Beatriz Voltani, edition of Cultivar Magazine



Valtra presents at Expointer 2026 a portfolio of machines focused on

operational efficiency, cost reduction and increased productivity. Highlights include the M5 and A5 series tractors, the HiTech planter, the Q5 Series and the 18-row Momentum planter, as well as the BS 2225H and R530 sprayers.

The M5 Series, launched this year as an evolution of the BH HiTech line, consists of the M165, M185, and M205 models, with power outputs of 165 hp, 185 hp, and 205 hp. The tractors feature a redesigned cab, Power Shift HiTech 3 Plus Synchronized transmission, two programming modes, and a hydraulic system with a flow rate of up to 205 liters per minute and a lifting capacity of up to 8,5 tons.

Another new product is the A5 tractor, developed for small and medium-sized

farms and aimed at the medium-power segment. According to Valtra, the model combines versatility, durability, operational comfort, and fuel economy.

The brand is also showcasing the HiTech planter, which uses a precise fertilizer and seed metering system and allows adjustments for different operating conditions.



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Solutions for different soil types

For the soil and cultivation conditions of Rio Grande do Sul, Valtra highlights the combination of the Q5 Series tractors and the 18-row Momentum planter. The tractors use a 7,4-liter AGCO Power engine and a continuously variable transmission (CVT), allowing speed adjustment without manual gear changes.

In the planter, the chassis weight distribution system aims to reduce soil compaction and maintain seed placement at the proper depth, even on uneven terrain and areas with crop residue.

For irrigated rice farming and operations in flooded soils, the brand presents the BM 115 and BM 135 tractors, with 115 hp and 135 hp respectively. The line is geared towards low-traction terrain, focusing on

robustness and continuity of operations.

In the spraying area, the highlights are the BS 2225H and R530 models. The BS 2225H features a flexible chassis and 4x4 cross-drive, characteristics aimed at the stability of the spray booms in different terrain conditions. The R530, on the other hand, is geared towards large grain-producing farms and combines features for high-speed applications and reduced pesticide overlap.

“Technology and operational efficiency can contribute to increased productivity, optimized costs, and strengthened farm profitability. More than just machines, we deliver solutions focused on generating value for the customer,” says Claudio Esteves, sales director at Valtra.

Expointer 2026 will take place from August 29 to September 6, at the Assis Brasil State Exhibition Park, in Esteio (RS).

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Brazilian soybeans seek new ways to add value

Increased productivity opens up opportunities for differentiated markets, such as high-oleic soybeans and SAF (Sugarcane Agroforestry System)

31.08.2026 | 10:51 (UTC -3)

Vera Barão



Brazilian agribusiness has made significant progress in productivity over the

past two decades, but the next challenge will be to transform this gain into greater value for production. This assessment was presented by consultant Ismael Menezes (pictured), from MD Commodities, during the XXIII Brazilian Seed Congress in Foz do Iguaçu.

Between 2005 and 2025, Brazilian productivity grew by 35%, while corn production increased by 75% and cotton by 65%, compared to the United States. According to Menezes, these results are a consequence of a combination of genetic improvement, biotechnology, precision agriculture, management, and administration.

According to him, the evolution occurred in different phases. First, the expansion of

the agricultural frontier and the growth of international demand, especially from China, boosted production. Then, technology began to occupy a larger space, with advances in genetics, industrial seed treatment, and other productivity tools. Now, the sector needs to find new ways to generate value.

“Are you going to produce more sacks or produce more value?” Menezes challenged. For him, increasing productivity will continue to be fundamental, but it may not be enough to sustain profitability gains in the future.

As an example, the consultant cited soybeans with a high oleic acid content, which exhibit greater oil stability and distinct nutritional characteristics. In the

United States, where this market is more developed, nearly 1 million hectares are already cultivated with this type of soybean, with premiums of US$0,75 to US$1,25 per bushel, according to the data presented.

Menezes warned, however, that Brazil cannot wait for these markets to consolidate before taking action. As a characteristic becomes common, the premium may disappear. "Are we going to wait for this market to happen or are we going to be an agent of transformation?" he asked.

SAF - Sustainable aviation fuel (SAF) was cited as another opportunity. With the advancement of targets for the use of this fuel from 2027 onwards, different raw

materials are competing for space, including soy, sugarcane, and corn. In the projection presented, meeting this demand could require between 35 million and 37 million tons of soy by 2037, if part of the oil currently destined for biodiesel were redirected to SAF.

The 2026/27 harvest requires attention to the market.

Analyzing the 2026/27 harvest, Menezes pointed out different perspectives among the main commodities. Rice, wheat, and cotton show supporting factors, while corn and soybeans require greater attention given the supply and demand conditions.

In the wheat market, reduced production expectations in major producing countries such as Russia, the United States, Argentina, and Brazil tend to decrease global stocks and support prices.

For cotton, the scenario is mainly influenced by the appreciation of oil and the movements of funds in the market. The recovery in prices, however, is occurring in an environment of still challenging demand, which requires caution.

For corn, US production is expected to be close to 398 million tons. Reduced stocks may support prices, but lower Chinese imports and increased supply from countries like Argentina and Brazil limit this potential.

In the soybean market, the behavior of the US harvest, Chinese demand, and production from major exporters should continue to determine the market. According to Menezes, the current situation calls for attention to price opportunities, but without losing sight of the fundamentals of supply and demand.

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Chris Dempsey assumes vice presidency of precision at CNH

Executive returns to the area after more than a year leading Quality and Product Support in North America

31.08.2026 | 08:26 (UTC -3)

Cultivar Magazine



CNH has a change in leadership in its precision products area. Chris Dempsey

(pictured) assumed the position of Vice President of Precision Product Management at the company in August 2026.

Dempsey returns to the precision area after more than a year leading the vice presidency of Quality and Product Support in North America. According to the executive, the experience brought him closer to the demands of customers and dealers and broadened his perspective on the company's products.

“Precision is the future of our industry,” Dempsey stated in a post about his new role. He also highlighted his expectation of contributing to the development of this area and to CNH's strategy with customers and dealers in different markets.

The executive began his career at CNH in March 2013 as a technical parts specialist. Subsequently, he held positions related to product management and marketing, including the role of Senior Global Director of Product Management and Marketing, between March 2024 and April 2025.

In April 2025, she took over the leadership of Quality and Product Support in North America. Now, she returns to the precision area, which marked the first years of her professional career at the company.

Holding a degree in Automotive Technology from Southern Illinois University, Dempsey has over 13 years of experience at CNH.

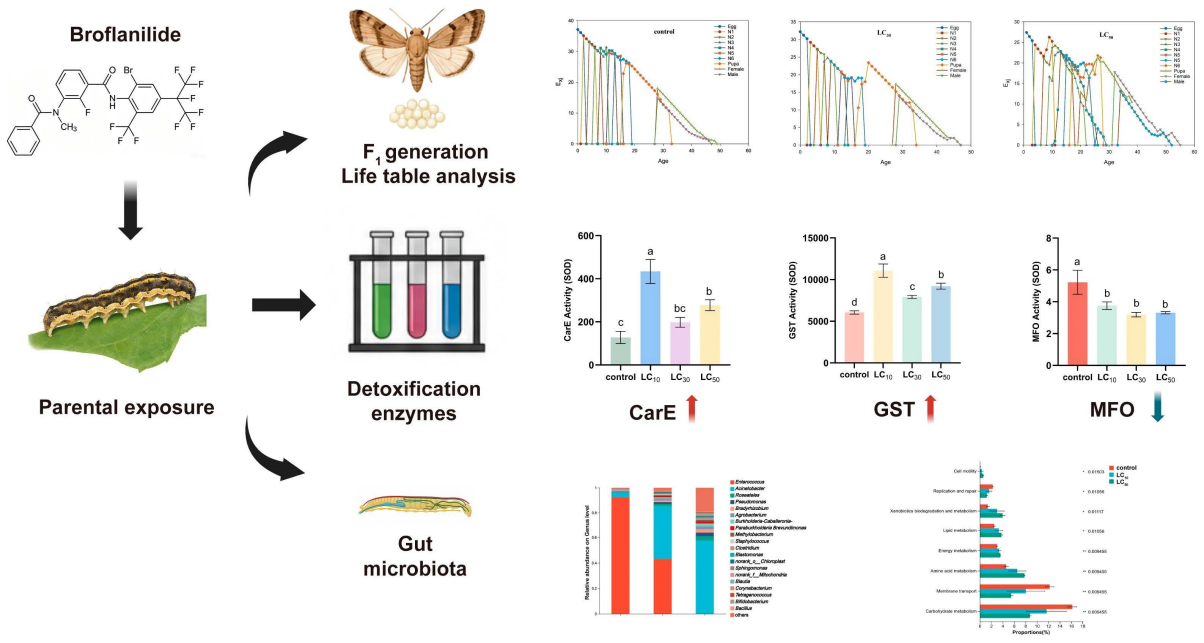
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Broflanilide reduces population growth of Helicoverpa armigera, study indicates

Parental exposure affected survival, fecundity, detoxification enzymes, and gut microbiota

30.08.2026 | 11:25 (UTC -3)

Schubert Peter, Cultivar Magazine



doi 10.3390/insects17080878

Parental exposure to broflanilide reduced the biological performance of the next

generation of Helicoverpa armigera. The insecticide prolonged larval development, decreased survival, and reduced the fecundity of offspring. The treatment also altered the activity of detoxification enzymes and the abundance of bacterial groups in the gut. The results came from a study conducted by researchers from the Chinese Academy of Agricultural Sciences and the Sichuan Tobacco Company in China.

Researchers evaluated the lethal, sublethal, and intergenerational effects of broflanilide. The study used third-instar caterpillars of Helicoverpa armigera. The colony remained in the laboratory for more than ten generations without exposure to insecticides. The lethal concentrations

used in the assays had been previously determined by the same team, with the same colony, the same instar, and the same bioassay method. The lethal concentration for 50% of the population, or LC50, was 0,457 milligrams per liter after 72 hours. The LC30 reached 0,253 milligrams per liter. The LC10 was 0,107 milligrams per liter. The toxicity ratio of 1,7 relative to a susceptible reference colony indicates that the tested population remains susceptible to the insecticide.

Reduced survival

In the parental generation, CL50 reduced larval survival from 90,80% in the control to 39%. Adult emergence fell from 100% to 78,52%. The proportion of adults with

malformations reached 15,88%, compared to 5,13% in the control. Fecundity fell from 2.299,38 to 1.557,50 eggs per female. The oviposition period decreased from 12,22 to 8,06 days.

The effects persisted in the next generation, even without direct contact of the offspring with broflanilide. Parental exposure to LC50 prolonged the total larval period from 14,21 to 18,95 days. Larval survival fell from 84% to 31,19%. Adult emergence reached 59,32%. In the group originating from parents exposed to LC30, the rate was 65,28%. The control group showed 97,22%.

Changes in reproduction

Reproduction also responded to parental exposure. The fecundity of the F1 generation reached 2.117,67 eggs per female in the control group. The number dropped to 1.546 eggs after parental exposure to LC30 and to 1.243,63 eggs after LC50. LC50 also increased the occurrence of malformations among F1 generation adults to 19,77%.

Life table analysis of the F1 generation confirmed a reduction in population growth potential. The intrinsic rate of increase fell by 21,4% after parental exposure to CL30 and by 32,3% after CL50. The net

reproductive rate decreased from 758,91 offspring per individual in the control group to 215,72 in CL30 and 188,63 in CL50. These reductions exceeded 70%. The average generation time reached 41,56 days in the CL50 group, compared to 35,63 days in the control group.

Detoxification systems

Broflanilide also elicited distinct responses in enzyme systems linked to detoxification. Carboxylesterase activity increased after exposure. The greatest stimulus occurred with LC10 after 24 hours, with activity approximately 3,4 times the level of the control. In the same interval, LC50 also exceeded the control, while LC30 showed no significant difference. After 72 hours, all

treatments showed carboxylesterase activity above the control.

Glutathione S-transferase showed an increase in all treatments within the first 24 hours. The highest activity also occurred at CL10. After 72 hours, activity remained elevated at CL10, but decreased in treatments CL30 and CL50. In these two groups, the values ??corresponded to 79,30% and 86,24% of the control, respectively.

The activity of cytochrome P450 monooxygenases followed the opposite direction. All treatments showed a reduction after 24 hours. At 72 hours, activity reached between 49,31% and 57,92% of the control. The researchers emphasize: changes in enzymatic activity

do not prove a direct participation of these enzymes in the metabolism of broflanilide. Assays with inhibitors, gene expression, transcriptomics, or metabolomics still need to evaluate this relationship.

Gut microbiota

The study also detected changes in the gut microbiota, assessed in the CL10 and CL50 groups. In the control group, Enterococcus predominated, with a relative abundance of 92,49%. Acinetobacter accounted for 4,12%. Under CL50, Acinetobacter reached 57,73% and became dominant. The relative abundance of Enterococcus decreased. Statistical analysis identified Enterococcus as the only genus with a significant difference

between CL50 and the control group.

The internal diversity of the community also responded to the treatment. The CL50 group showed a significantly higher Shannon index and a significantly lower Simpson index than the control group. This same group gathered 493 unique sequence variants, compared to 78 in the control group. However, the overall structure of the community, assessed by comparing the groups, did not show a significant difference between the treatments.

Functional prediction indicated an increase in pathways related to biodegradation and xenobiotic metabolism. The researchers themselves treat this result as an indication of functional potential, not as

proof of broflanilide degradation by bacteria.

The team concluded: broflanilide can limit Helicoverpa armigera populations through direct toxicity and biological costs observed in offspring. The work considers the effects on the F1 generation as intergenerational. The research did not evaluate subsequent generations and, for this reason, does not allow classifying the effects as fully transgenerational (doi 10.3390/insects17080878).

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ATENÇÃO ESTE PRODUTO É PERIGOSO À SAÚDE HUMANA, ANIMAL E AO MEIO AMBIENTE; USO AGRÍCOLA; VENDA SOB RECEITUÁRIO AGRONÔMICO; CONSULTE SEMPRE UM AGRÔNOMO; INFORME-SE E REALIZE O MANEJO INTEGRADO DE PRAGAS; DESCARTE CORRETAMENTE AS EMBALAGENS E RESTOS DOS PRODUTOS; LEIA ATENTAMENTE E SIGA AS INSTRUÇÕES CONTIDAS NO RÓTULO, NA BULA E RECEITA; E UTILIZE SEMPRE OS EQUIPAMENTOS DE PROTEÇÃO INDIVIDUAL.



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