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N° 12

Cultivar *Semanal*®



**A threat to the
second crop**

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Green-bellied stink bug threatens second-season corn productivity

Damage is more intense in drought conditions

11.01.2025 | 05:55 (UTC -3)

Cultivar Magazine



Large-area corn cultivation, especially in the second crop, faces increasing challenges with the increasing incidence of pests. The green-bellied stink bug (*Diceraeus melacanthus*) stands out as one of the main entomological problems, causing significant damage, especially in the initial stages of plant development. In the last harvest, producers from several states reported significant losses due to attacks by this insect.

Characteristics and impact

First described in corn crops in Brazil in 1993, in Rio Brilhante (MS), the green-bellied stink bug has spread to several

producing regions.

With a development cycle of around 29 days, this pest can complete up to four generations during the growing season.

The insect uses its mouthparts to suck plant tissue, causing deformations in the leaves, reduction in plant size and, in more severe cases, death.

Damage is more intense in drought conditions, when plants have less capacity to recover.

Weeds and integrated management

The green-bellied stink bug has a close relationship with weeds, such as bitter grass (*Digitaria insularis*), trapoeraba (

Commelina benghalensis) and mombaça grass (*Panicum maximum*). These plants provide shelter and food, facilitating the development of the insect's life cycle.

Studies carried out in Mato Grosso do Sul indicated a greater presence of bedbugs in areas with green weeds, highlighting the importance of controlling these species in pest management.

Among the management strategies, monitoring is essential. It is recommended to closely observe the bedbug population before and after planting the crop.

Spraying insecticides at the end of the soybean cycle, especially during desiccation for harvest, has been shown to be effective in reducing initial populations. However, it is essential to use products

with adequate withdrawal periods.



Photo: Ivan Cruz

Seed treatment and complementary strategies

Treatment of corn seeds with insecticides from the neonicotinoid group is an important preventive measure, especially

in areas with low bed bug infestation.

In high infestation scenarios, this approach may not be sufficient, and complementary strategies may need to be adopted, such as “Plant and Apply” (PA). This technique consists of applying insecticides immediately after sowing corn, taking advantage of the movement of bugs caused by soil movement.

Spraying during the early stages of development, between V1 (one open leaf) and V5 (five open leaves), is also recommended. Seedling protection at these stages is crucial to minimize yield losses.

Studies indicate the effectiveness of natural biological control of the green-bellied stink bug by egg parasitoids, such

as *telenomus podisi*, and adults, like *Hexacladia smithii*.

[Pesticides registered for the control of *Diceraeus melacanthus* can be seen here.](#)

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Improper use of fungicides can trigger outbreaks of "Helicoverpa armigera"

The study simulated field conditions with different copper concentrations

11.01.2025 | 02:39 (UTC -3)

Cultivar Magazine



Photo: Sebastian Araujo

Recent study warns that excessive use of copper-based fungicides in agriculture can cause adverse effects on ecology and pest management, including increased caterpillar resistance and adaptation *Helicoverpa armigera*, one of the world's major agricultural pests.

Research conducted by Wenhui Lu and collaborators at Henan Agricultural University, China, highlights how prolonged exposure to copper affects the development, metabolism and behavior of this pest, as well as negatively impacting its natural enemies.

Metabolism and tolerance

The study simulated field conditions with different concentrations of copper in the diet of *H. armigera*.

Although the general survival and development rates of the larvae were not significantly altered, a significant increase in metabolic activity and in the expression of genes related to detoxification was observed.

Enzymes such as GST, CarE and CYP450 were amplified, allowing the pest to consume more food and better resist insecticides such as azadirachtin and chlorantraniliprole.

In addition to increasing tolerance of *H. armigera* pesticides, copper-based fungicides also harm wasp parasitism.

The parasitism rate fell from 61,7% in untreated larvae to 40% in those exposed to copper, indicating that the application of fungicides can destabilize the ecological balance.

Recommendations for fungicides

The researchers recommend careful evaluation of the impact of copper-based fungicides, especially in agricultural settings that rely on integrated pest management practices.

They warn of the need to synchronize the application of fungicides and insecticides, ensuring that copper residues are degraded before using insecticides, to

avoid strengthening the pests.

More information can be found at:

- doi.org/10.1016/j.pestbp.2025.106297
- [*Helicoverpa armigera*](#)

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John Deere Introduces 9RX Autonomous Tractor

System has 16 individual cameras arranged in capsules to obtain a 360° view of the field

07.01.2025 | 13:46 (UTC -3)

Cultivar Magazine



John Deere is presenting its new generation of autonomous machines at the Consumer Electronics Show (CES) 2025

in Las Vegas (USA). They use artificial intelligence, computer vision and advanced sensors.

This is the 5th consecutive year that the company has participated in the fair, considered the largest and most important technology event in the world.

9RX Autonomous Tractor

Among the new products is the 9RX autonomous tractor, designed for large-scale agricultural operations. With the introduction of the second-generation autonomy kit, which combines advanced computer vision and artificial intelligence, the tractor eliminates the need for an

operator in the cab, the company reports.

According to the company's presentation, part of the autonomy system involves camera arrays (there are 16 individual cameras). Instead of two overlapping cameras (the previous system), there are many overlapping cameras. Each one can correct the position and orientation of each frame. This real-time calibration allows for operation with wider baselines and more accurate depth and range.

And seeing further allows machines to drive 40% faster and pull implements twice as wide as before. The new camera kit can be retrofitted onto existing large tractors.



9RX Autonomous Tractor

* * *

On the subject, see what it explains
Gaurav Bansal, vice president of
engineering at Blue River Technology, part
of Deere & Co...

**There are several 9RX models. Which
one will have the equipment highlighted**

in the article?

Today we are providing this technology for the 8R, 8RX, 9R and 9RX tractors, which are the flagships in corn and soybean operations. These are the tractors currently being considered.

What equipment provides autonomy? Are they manufactured in-house or the result of a recent acquisition by John Deere?

The autonomy kit consists of two computers, called vision processing units (VPUs), each equipped with an Nvidia chip or similar, plus 16 cameras and a StarFire GNSS receiver. The VPUs are designed in-house by John Deere, with components such as the Nvidia chip purchased from partners. The cameras are supplied by

partner manufacturers, and the kit is assembled with manufacturing suppliers in the United States.

Can this equipment be adapted to the 9RX already sold in Brazil? Or will it be necessary to purchase a new machine?

Currently, the autonomy kit can be installed on existing tractors when taken to a dealership in the United States only, where the cameras, computers and GNSS receiver are integrated into the machines. There is no need to purchase new tractors.

* * *



Cameras on the autonomous 9RX tractor



Cameras on the autonomous 9RX tractor



Cameras on the autonomous 9RX tractor

In Brazil, the company offers several 9RX tractors. See them by clicking on the link below:

- [John Deere - tractors with more than 250hp](#)

* * *

5ML autonomous narrow tractors

The company also highlights its autonomous 5ML tractor, a narrow machine for use in special crop operations.

According to John Deere, the second-generation autonomy system enables precise navigation, even under dense leaf cover. The tractor identifies obstacles and adjusts its route. It can be managed remotely.

The tractor will be offered with a diesel engine. At a later stage, it will have a battery-electric version.

The company said there is no set date for the arrival of this technology in Brazil. "But

it is something we are working on," said Gaurav Bansal.



John Deere 5ML Autonomous Tractor - Side View



John Deere 5ML Autonomous Tractor - Inside View



John Deere 5ML Autonomous Tractor - Front View

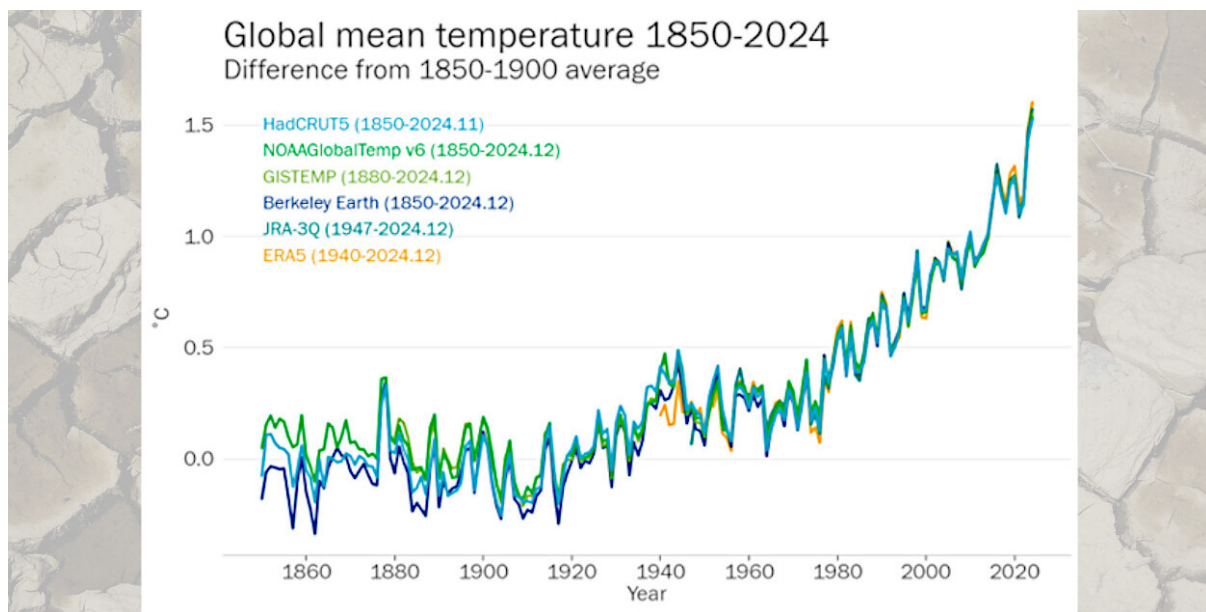
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2024 is the hottest year on record, says WMO

The last ten years (2015-2024) were among the hottest on record

10.01.2025 | 14:25 (UTC -3)

Cultivar Magazine



The World Meteorological Organization (WMO) reported that 2024 was the hottest year on record, with the global average temperature reaching 1,55°C above pre-

industrial levels (1850-1900). This milestone represents, possibly, the first calendar year in which the global average temperature exceeds the 1,5°C limit set by the Paris Agreement.

The last ten years (2015-2024) were among the hottest on record, highlighting a trend of global warming. Rising temperatures have been accompanied by extreme weather events, rising sea levels and melting glaciers.

UN Secretary-General António Guterres highlighted the gravity of the situation: "Global warming is an indisputable fact. Individual years exceeding the 1,5°C limit do not mean that the long-term goal has been compromised, but they do indicate the need to step up climate action."

WMO uses six international datasets to consolidate its analyses, including information from the European Centre for Medium-Range Weather Forecasts, the Japan Meteorological Agency, NASA, the US National Oceanic and Atmospheric Administration (NOAA), the UK Met Office in collaboration with the University of East Anglia Climatic Research Unit (HadCRUT) and Berkeley Earth.

For the agricultural sector, these climate changes pose significant challenges, including changes in precipitation patterns, increased frequency of extreme weather events and impacts on crop productivity.

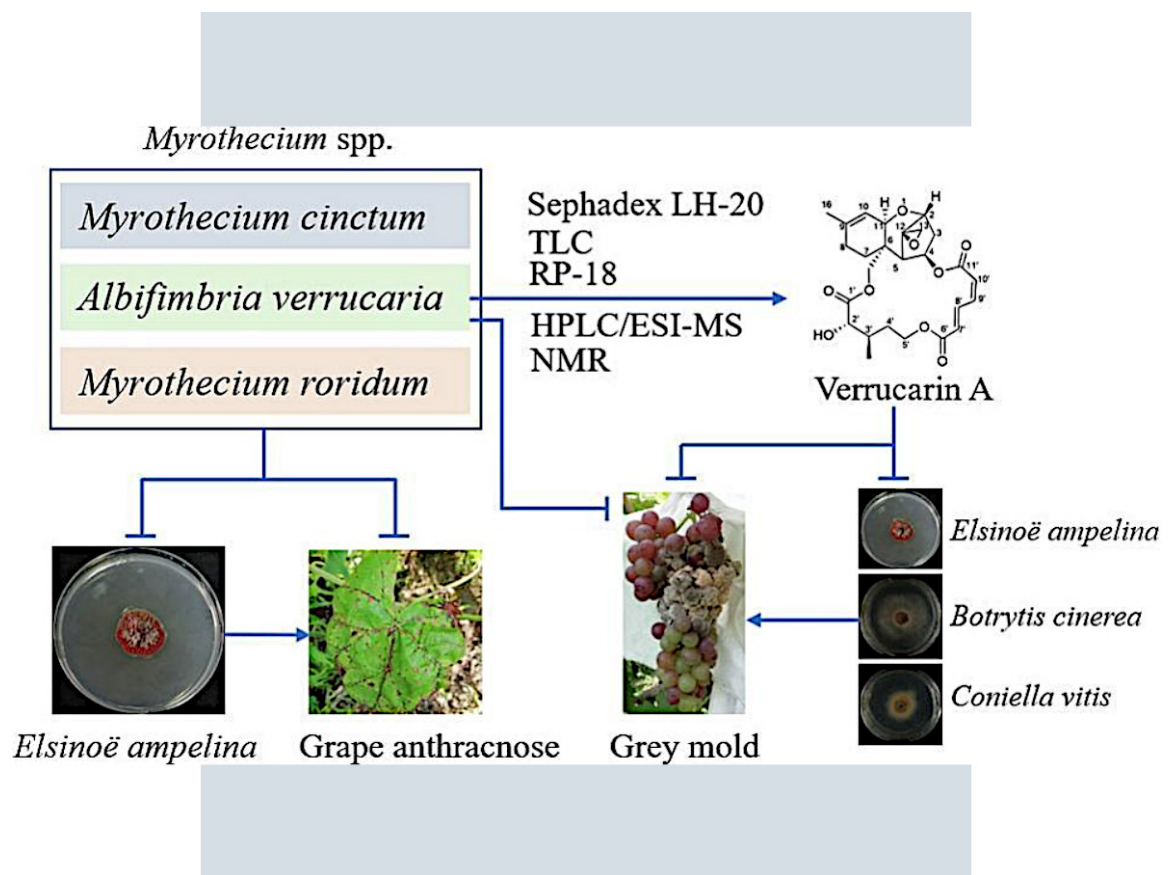
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Potential of *Myrothecium* spp identified in the control of grapevine diseases

Research evaluated anthracnose and gray mold

10.01.2025 | 14:16 (UTC -3)

Cultivar Magazine



Study conducted by Chinese researchers revealed the potential of three species of the genus *Myrothecium* in the control of two of the main fungal diseases that affect grape production: anthracnose, caused by *Elsinoe ampelina*, and gray mold, caused by *Botrytis cinerea*.

Research highlights the use of fungus *Albifimbria verrucaria* (synonymous *M. verrucaria*) as an effective biocontrol agent and the identification of an active compound, verrucarín A, with potential to combat these diseases.

Tests have shown that culture filtrates of *Myrothecium cinctum*, *Myrothecium roridum* e *A. verrucaria* significantly inhibit the growth of pathogenic fungi.

A. verrucaria showed the best performance, reducing the incidence of anthracnose by up to 89,58% in leaves of the Thompson Seedless grape cultivar, six days after treatment. In relation to gray mold, the reduction was up to 49,38% in treated leaves.

In addition to its biocontrol efficacy, the study identified verrucarín A as the main antifungal compound. The substance was able to completely inhibit mycelial growth of *E. ampelina* e *B. cinerea* in concentrations of 20 µg/mL.

In experiments with Red Globe grapes, the application of verrucarín A reduced the incidence of gray mold by 10,49% and achieved a control efficacy of 66,22%.

More information can be found at
doi.org/10.1016/j.pestbp.2024.106285

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La Niña arrives and promises impacts on the global climate

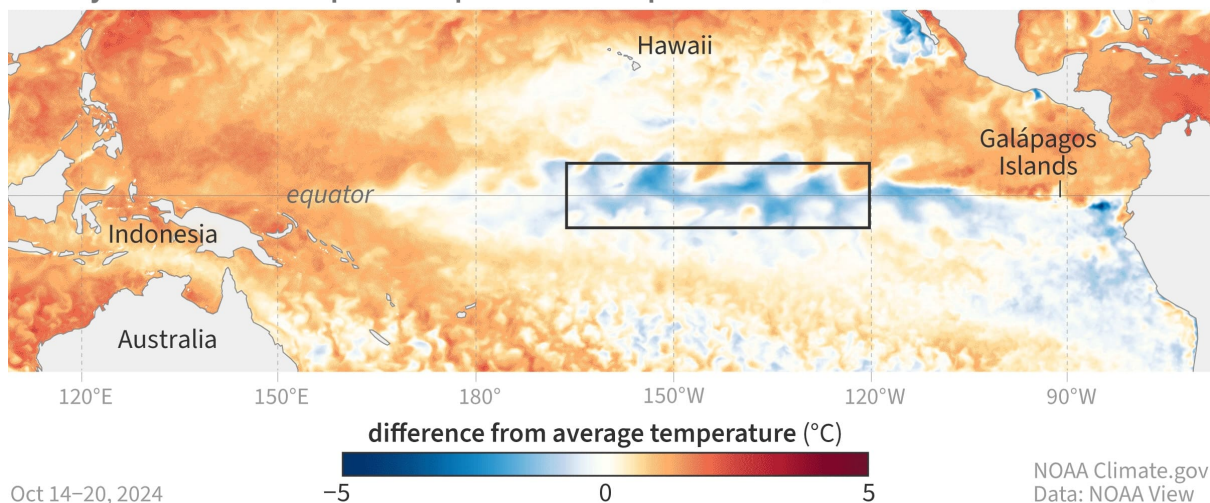
The influence of other climatic factors can soften or intensify their impacts

09.01.2025 | 15:27 (UTC -3)

Cultivar Magazine



Weekly sea surface temperature patterns in tropical Pacific (Oct 14, 2024–Jan 5, 2025)



La Niña, a climate phenomenon characterized by the anomalous cooling of waters in the Equatorial Pacific, has

become established after months of anticipation. Experts from NOAA (the United States National Oceanic and Atmospheric Administration) have confirmed the occurrence of the event, with a 59% chance of it persisting until the period from February to April and a 60% chance of a return to neutral conditions between March and May.

Even though this La Niña is considered weak, with low chances of reaching significant levels ($-1,0\text{ }^{\circ}\text{C}$), its effects are already visible. The period from October to December 2024 presented typical La Niña precipitation patterns, with above-average rainfall in some areas and drought in others.

However, the influence of other climate factors, including global warming trends, may soften or intensify these impacts.

What to expect?

Although a short-lived La Niña is forecast, its effect on climate conditions could still be relevant, especially for agriculture, with possible changes in rainfall and temperature patterns.

In Brazil, agricultural regions may experience a pattern of drought in the south and more intense rainfall in the north and northeast, historical characteristics associated with this phenomenon.

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Bayer acquires camelina assets to boost biofuels

The values ??for the deal were not disclosed.

09.01.2025 | 12:05 (UTC -3)

Cultivar Magazine



Bayer has announced the acquisition of germplasm and intellectual property related to camelina (*camelina* spp.) of the Canadian company Smart Earth Camelina

Corp. The operation is part of the German company's strategy to meet the growing demand for renewable fuels. The values ??of the deal were not disclosed.

Camelina is an intermediate oilseed with a low carbon index.

The crop can be grown in spring and winter seasons and has characteristics such as drought tolerance and a short cycle, allowing it to be planted on marginal lands or between harvests.

By 2025, Bayer plans to introduce camelina as a viable alternative for farmers, complementing its biofuels strategy, which already includes work with other oilseeds such as CoverCress and winter canola.

A few days ago, Bayer announced another deal in the area. Read in "Bayer and Neste sign partnership for biofuels".

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Ants recognize enemies through experience

They remember odors of aggressive rival colonies and adjust their behavior

09.01.2025 | 10:22 (UTC -3)

Cultivar Magazine



Photo: Volker Nehring

A study by researchers at the University of Freiburg, Germany, has revealed that ants use associative learning to recognize

enemies. The experiment demonstrated that ants remember odors from aggressive rival colonies and adjust their behavior based on these memories. Learning improves colony defense by allowing ants to attack intruders from previously known colonies.

Main results

Ants can distinguish members of their own colony from those of rival colonies by specific odors. The study introduced negative experiences for groups of ants with rivals from different colonies.

Ants that encountered aggressive opponents exhibited greater aggression in later interactions with members of the

same rival colony.

On the other hand, those who interacted with passive opponents showed less aggression.

The experiments were carried out in two phases.

In the first, groups of ants were exposed to daily one-minute encounters with members of rival colonies, which were classified as either aggressive or passive.

In the second phase, these groups were put in contact with rivals from known or unknown colonies.

Ants exposed to aggressive opponents showed higher aggression than those that interacted with passive rivals.

Learning mechanism

The aggression suffered by the ants acts as an unconditioned stimulus, while the odor of the rival colony serves as a conditioned stimulus.

This association leads to the development of an "enemy template", which is stored in the ant's memory.

Additional experiments confirmed that ants not only distinguish, but adjust their aggressive behavior depending on previous experience.

More information can be found at
doi.org/10.1016/j.cub.2024.11.054

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Adama announces availability of Trivor insecticide for coffee

Product combines two active ingredients: acetamiprid and pyriproxyfen

09.01.2025 | 08:56 (UTC -3)

Cultivar Magazine, based on information from Cláudia Santos



TRIVOR®
Inseticida



Adama announced the expansion of its portfolio with the launch of the Trivor

insecticide for controlling leaf miners (*Leucoptera coffeella*), the main pest of coffee crops. The pesticide arrives at a time of climate challenges and high prices in the coffee market.

Leaf miners cause severe defoliation in plants, which can reduce their production potential by more than 50%. The product combines two active ingredients from different chemical groups (acetamiprid and pyriproxyfen). This provides more effective control of the main pests. It also reduces the risk of developing resistance.

According to Daniel Faria, an agronomist responsible for market development at Adama, Trivor has a translaminar action, protecting the leaves continuously and lastingly during the harvest, which directly

contributes to increasing productivity and profitability for coffee growers.

[Click here to learn more about the leaf miner](#)

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Bayer and Neste form partnership for biofuels

Bayer aims to launch TruFlex hybrid canola in 2027

08.01.2025 | 14:13 (UTC -3)

Cultivar Magazine, based on information from Alexander Hennig



Jennifer Ozimkiewicz and Frank Terhorst

Bayer and Neste have signed a memorandum of understanding to expand production of winter canola as a raw material for renewable products such as

biofuels. The goal is to facilitate Bayer's entry into this market. A definitive agreement is expected to be finalized by 2025.

Bayer plans to launch TruFlex hybrid canola in 2027. The product integrates Roundup Ready technology and resistance to pod shattering, characteristics that promote greater stability and performance.

Winter canola will be used as an alternative for crop rotation, contributing to carbon sequestration in the soil and improving soil health, such as increasing organic matter and water retention capacity.

Frank Terhorst, Head of Strategy and Sustainability at Bayer's Crop Science

division, highlighted the role of renewable fuels in decarbonizing the transportation and energy sectors. He stressed that the growing demand for biofuel feedstocks creates opportunities for new investments.

Jennifer Ozimkiewicz, head of soybean and biofuels strategy for the same division, said TruFlex canola represents a profitable option for farmers, with potential sustainability benefits such as increased biodiversity, soil health and reduced pressure from pests, diseases and weeds.

The partnership with Neste, a producer of sustainable aviation fuel and renewable diesel, seeks to diversify renewable raw materials and develop regenerative agriculture concepts.

According to Artturi Mikkola, senior vice president of raw material sourcing and marketing at Neste, winter canola can reduce the carbon intensity of raw materials and replace fossil resources with renewable sources.

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Yanmar completes acquisition of Claas India

The company name was changed to Yanmar Agricultural Machinery India Private Limited (Yamin)

08.01.2025 | 13:47 (UTC -3)

Cultivar Magazine



Yanmar Holdings Co., Ltd. announced that it has completed the acquisition of Claas India Private Limited through its subsidiary Yanmar Coromandel Agrisolutions Private Limited.

Additionally, it changed the company name to Yanmar Agricultural Machinery India Private Limited (Yamin).

Using the technological expertise and know-how that Yanmar has developed, Yamin will produce harvesters and other agricultural machinery for the Indian and global markets at its factory located in Morinda, Punjab.

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Corteva Agriscience Acquires Global Rights to Phenix Software

The tool will be used for digital assessments

08.01.2025 | 08:01 (UTC -3)

Cultivar Magazine



Corteva Agriscience announced today that it has acquired exclusive global rights to Progeny Drone's Phenix software, developed through its Corteva Catalyst

investment platform. The system combines aerial drone mapping and high-resolution image analysis to monitor crop performance in response to management and environmental conditions.

The tool will be used by Corteva's crop protection research scientists for digital assessments. Among its functions, Phenix includes specific tools for mapping plots in the field and quantifying images.

According to information provided by Corteva, the software will be applied to reduce data processing time, measure the performance of new products and improve crop health, weed management and productivity.

Corteva envisions the software streamlining workflows, reducing

infrastructure demands and integrating with existing data repositories. It will initially be used by drone pilots in crop protection teams, with later expansion into agronomic and commercial research.

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Corn harvest begins in Coopatrigo's areas of operation

Expectations are for a challenging harvest, due to difficulties related to weather conditions

07.01.2025 | 16:02 (UTC -3)

Coopatrigo



The 2025 corn harvest has begun in the regions served by Coopatrigo,

headquartered in São Luiz Gonzaga (RS). The cooperative states that it has been working hard to ensure the best technical support from planting to harvesting, offering all the necessary support for the success of this harvest.

“With the beginning of the harvest, we have maintained our commitment to producers, where since the beginning of the harvest cycle, technicians from the Cooperative have closely monitored the development of the crops, offering guidance on appropriate management, the use of technologies and inputs, pest control, in addition to monitoring climate conditions to ensure the highest possible productivity”, it states in a note.

In addition to technical support, Coopatrigo is also preparing to receive corn at its units. According to the cooperative, the facilities are equipped with all the necessary structure to receive the grains efficiently and quickly.

“The weighing, storage and classification of corn are carried out with total transparency and security, offering producers the confidence that their production will be valued and remunerated correctly”, he adds.

According to agronomist Bento Buttenbender, expectations for this corn harvest are challenging. Crops in dryland areas have faced difficulties due to weather conditions, which poses major challenges, especially in relation to results.

However, in irrigated areas, expectations are quite positive, with projections of excellent harvests.

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Tratorcase and Hwill sign acquisition agreement

Confirmation of the transaction depends on and is subject to approval by Cade

07.01.2025 | 15:14 (UTC -3)

Cocari



Tratorcase and Hwill, companies operating in the agricultural machinery sector, under

the Case IH Agriculture brand, announced that, through a market opportunity, they have formally signed a contract for the acquisition by Tratorcase of the Hwill stores, headquartered in Canoinhas and with a branch in Mafra, Santa Catarina.

Confirmation of the transaction depends on and is subject to approval by Cade (Administrative Council for Economic Defense), in accordance with the established legal and regulatory requirements.

The intention is to add the other 23 municipalities to the Tratorcase area, currently under Hwill's concession in the State of Santa Catarina. Tratorcase is part of the Cocari Group – Agricultural and Industrial Cooperative, headquartered in

Mandaguari, Paraná.

Municipalities operating in Santa Catarina:

The following are the main cities of the country:

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Year begins with expectations of growth in summer crops

Cooperativa Tradição confirms the trend and highlights that the first results are already being observed

07.01.2025 | 15:03 (UTC -3)

Coopertradição



The year 2025 begins with good prospects for summer harvests in Pato Branco and the region. According to data from the Brazilian Institute of Geography and Statistics (IBGE), national production of cereals, legumes and oilseeds is expected to grow by around 7% compared to the 2024 harvest.

The executive director of Cooperativa Tradição, from Pato Branco (PR), Fernando Alan Tonus, confirms this growth trend and highlights that the first results are already being observed in the bean harvest.

“We are already receiving the bean harvest, which presents volumes higher than those recorded in 2024. There was an increase in the planted area, which will

significantly impact the number of tons harvested”, he emphasizes.

After harvesting the beans, the cooperative members have already started planting corn. The first shipments are expected to start arriving at the cooperative's warehouses within 10 to 15 days.

“In colder regions, the harvest should begin between February 10 and 15. Our projection is for productive crops, with a yield of over 13 thousand kilos per hectare, which is equivalent to around 500 to 550 bags of corn per bushel,” he explains.

As far as soybeans are concerned, the outlook is also promising. “The crops are developing well, and the production estimate is positive. Although we have already recorded diseases, such as rust,

the crop treatments are being carried out efficiently. We have not observed any areas in critical condition, which reinforces our expectation of a harvest greater than last year's," he concludes.

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SLC Agrícola seeks to eliminate waste in landfills by 2028

Through the circular economy, the company hopes to achieve 99% recyclability on farms

07.01.2025 | 13:46 (UTC -3)

Camila Cordeiro, Cultivar Magazine edition



In 2021, SLC Agrícola launched a circular economy project to promote better

recycling and reuse of materials generated by farm activities, reducing waste to zero in landfills. The initiative seeks to reduce waste and increase resource efficiency, strengthening the company's commitment to promoting sustainability within and outside the organization.

The project composts organic waste from agricultural activities and social areas on farms, such as cotton husks from processing, food scraps, animal manure and pruning waste. After treatment, the compost produced is used as organic fertilizer on crops.

Fazenda Pamplona, ??located in Cristalina (GO), was the first SLC Agrícola property to adopt circular economy practices, which led to an increase in the unit's recyclability

rate, rising from 29% to 99,8%.

“In 2023, we expressed our commitment to eliminate the volume of waste sent to landfills by 2028, and we believe that the circular economy is the way to advance this agenda. By better separating waste within our units and sending it to a more circular destination, we will increase the useful life of these materials, which were previously just waste, and will be able to produce fertilizers that are used on our farms. Reconciling the economic growth of our business with sustainability and the well-being of society is our main objective”, he highlights. **Alvaro Dilli** (pictured above), director of human resources, sustainability and IT at SLC Agrícola.

In addition to Fazenda Pamplona, ??other properties of the company such as Parnaguá (PI), Parceiro (BA) and Pioneira (MT), Paladino, Panorama and Piratini, all in Bahia, operate with the circular economy model.

The project is now being implemented on the Planalto and Pantanal farms (MS), Palmares (BA) and Pamplona headquarters III (MG). The company's goal is to have the circular economy included in its daily activities on all 2028 farms by the end of 23.

Since the project was implemented, SLC Agrícola has generated approximately 13.300 tons of organic waste that was recycled through composting. The main waste produced by SLC is agricultural

waste from grain and cotton processing, and plastic tarpaulins used in cotton harvesting and processing, as well as packaging for inputs and automotive waste from maintenance workshops.

To implement the project, three stages are required:

- in the first, processes are analyzed, opportunities are identified, team engagement and awareness is raised, operations are adapted and an action plan is designed;
- in the second, the waste center is restructured, and thus begins the construction of the Ecofactory – a space that composts organic waste generated on farms, allowing it to be reused in the production

process – in addition to training the team;

- Finally, SLC looks at technical solutions and innovative resources.

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AGCO announces €87 million investment in France

Operation is expected to begin by the end of 2026

07.01.2025 | 10:36 (UTC -3)

Cultivar Magazine



Jena Holtberg-Benge and Philippe Gehl

AGCO Corporation has announced the construction of a parts distribution center in Amnéville, France. The total investment will be approximately €87 million, with €17 million earmarked for a sustainable, low-emissions facility. The new center will serve Europe and the Middle East and will be the primary parts distributor for the Americas and Asia-Pacific. Operation is expected to begin by the end of 2026.

The new center, with 84.000 m² of built area on a 200.000 m² site, consolidates five facilities into a single operation. The company will use advanced technologies to optimize order processing and ensure more efficient delivery of parts. The site will feature state-of-the-art automated storage, packaging and scanning

equipment.

According to Jena Holtberg-Benge, AGCO's vice president of aftermarket, the center will strengthen parts supply and improve the employee experience. She noted that the investment reflects the company's commitment to farmers and its dealer network.

The new facility will be designed with sustainability in mind. The roof will be equipped with solar panels to generate renewable energy, and all handling equipment will be electric. The facility will also use rainwater for cleaning and sanitation purposes, helping to conserve water resources in a region that is expected to experience high water stress by 2030.

In addition, the move to Amnéville will help revitalize a disused industrial area. The company plans to decontaminate the soil, plant around 200 trees and adopt practices that promote biodiversity.

Philippe Gehl, AGCO's Senior Manager in France, stressed that the transition will be carried out in partnership with the team at the current Ennery center, ensuring continuity of service and employee well-being. The new center will have the capacity to manage more than five million orders per year, which should increase the uptime of farmers' machines.

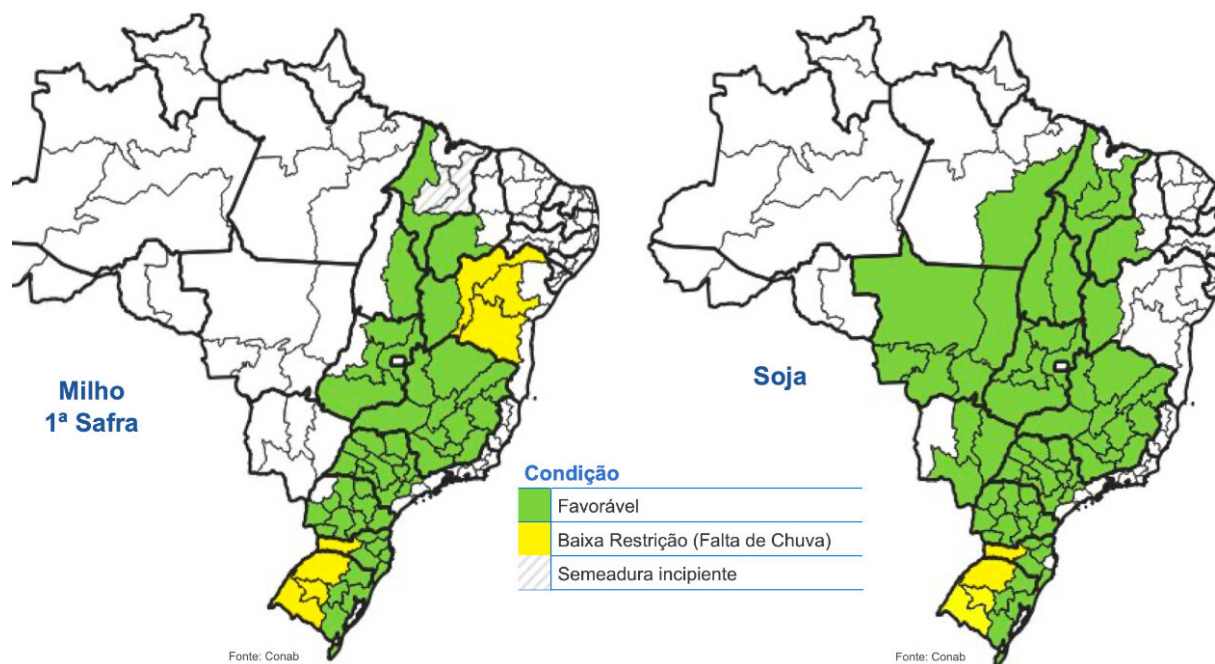
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Conab: crop monitoring January 6, 2025

Soybean harvest reached 19,4% of the planted area in Brazil

07.01.2025 | 08:39 (UTC -3)

Cultivar Magazine



The soybean harvest reached 19,4% of the planted area in Brazil, according to the Weekly Monitoring of Crop Conditions released by Conab on January 6, 2025.

Paraná is leading the harvest progress, with 35% of the area already harvested, favored by the stable climate.

In Bahia, rainfall conditions are adequate in the West, but drought is damaging crops in other regions of the state.

Goiás has good conditions for grain filling, while in Rio Grande do Sul sowing continues in some regions, and harvesting is progressing where crops are already mature.

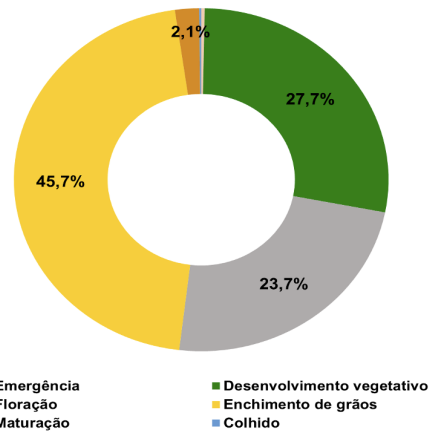


Soja - Safra 2024/25

(Esses 12 estados correspondem a 96% da área cultivada)

Semeadura

Estado	Semana até:		
	2024	2025	
	6/jan	29/dez	5/jan
Tocantins	100,0%	100,0%	100,0%
Maranhão	70,0%	67,0%	68,0%
Piauí	97,0%	98,0%	99,0%
Bahia	100,0%	100,0%	100,0%
Mato Grosso	100,0%	100,0%	100,0%
Mato Grosso do Sul	100,0%	100,0%	100,0%
Goiás	99,8%	99,9%	100,0%
Minas Gerais	100,0%	100,0%	100,0%
São Paulo	100,0%	100,0%	100,0%
Paraná	100,0%	100,0%	100,0%
Santa Catarina	92,0%	95,0%	96,0%
Rio Grande do Sul	98,0%	96,0%	97,0%
12 estados	98,6%	98,2%	98,5%



Semeadura

Estado	Semana até:		
	2024	2025	
	6/jan	29/dez	5/jan
Tocantins	0,0%	0,0%	0,0%
Maranhão	0,0%	0,0%	0,0%
Piauí	0,0%	0,0%	0,0%
Bahia	0,0%	0,0%	1,0%
Mato Grosso	1,4%	0,2%	0,5%
Mato Grosso do Sul	0,0%	0,0%	0,0%
Goiás	0,0%	0,0%	0,0%
Minas Gerais	0,0%	0,0%	0,0%
São Paulo	1,0%	0,0%	0,0%
Paraná	1,0%	0,0%	0,0%
Santa Catarina	0,0%	0,0%	0,0%
Rio Grande do Sul	0,0%	0,0%	0,0%
12 estados	0,6%	0,1%	0,2%

Corn records growth

The corn harvest reached 1,1% of the cultivated area.

In Minas Gerais, the climate favors crop development. In Rio Grande do Sul, dry weather favors maturation, but negatively

affects grain filling in some areas.

In Paraná, the climatic conditions allow for cultural treatments, while in Goiás, irrigated crops are progressing towards grain filling.

In states such as Santa Catarina and São Paulo, crops are developing well, despite specific challenges.

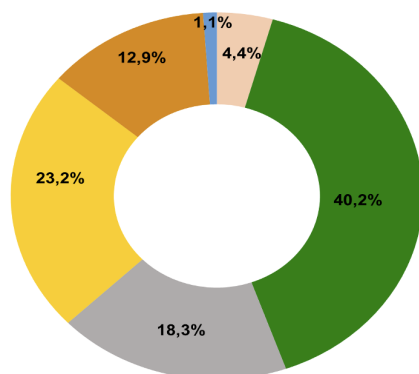


Milho 1ª - Safra 2024/25

(Esses 9 estados correspondem a 92% da área cultivada)

Semeadura

Estado	Semana até:		
	2024	2025	
	6/jan	29/dez	5/jan
Maranhão	37,0%	25,0%	30,0%
Piauí	30,0%	35,0%	45,0%
Bahia	86,0%	67,0%	75,0%
Goiás	95,0%	100,0%	100,0%
Minas Gerais	99,6%	100,0%	100,0%
São Paulo	100,0%	100,0%	100,0%
Paraná	100,0%	100,0%	100,0%
Santa Catarina	100,0%	100,0%	100,0%
Rio Grande do Sul	92,0%	92,0%	94,0%
9 estados	84,3%	80,8%	83,7%



Colheita

Estado	Semana até:		
	2024	2025	
	6/jan	29/dez	5/jan
Maranhão	0,0%	0,0%	0,0%
Piauí	0,0%	0,0%	0,0%
Bahia	0,0%	0,0%	0,0%
Goiás	0,0%	0,0%	0,0%
Minas Gerais	0,0%	0,0%	0,0%
São Paulo	0,0%	0,0%	0,0%
Paraná	0,0%	0,0%	0,0%
Santa Catarina	3,0%	0,0%	1,0%
Rio Grande do Sul	16,0%	1,0%	4,0%
9 estados	4,2%	0,2%	1,1%

- Emergência
- Floração
- Maturação
- Desenvolvimento vegetativo
- Enchimento de grãos
- Colhido

Rice: development varies

Rice continues with 0,3% of the harvested area.

In Rio Grande do Sul and Santa Catarina, climatic conditions continue to be favorable for vegetative development and flowering, while in Tocantins the irrigated rice harvest is progressing, approaching its end.

In Mato Grosso, planting is concentrated in the last plots, and harvesting already occurs in areas sown early.

In Paraná, crops present different stages, from vegetative development to flowering.



Arroz - Safra 2024/25

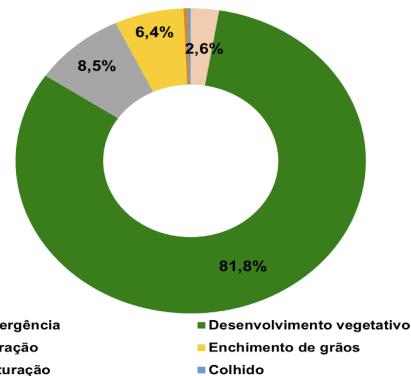
(Esses 6 estados correspondem a 88% da área cultivada)

Semeadura

Estado	Semana até:		
	2024	2025	
	6/jan	29/dez	5/jan
Tocantins	97,0%	95,0%	98,0%
Maranhão	28,0%	14,6%	14,6%
Mato Grosso	79,8%	89,7%	95,8%
Goiás	82,0%	87,0%	88,0%
Santa Catarina	100,0%	100,0%	100,0%
Rio Grande do Sul	98,0%	99,0%	99,0%
6 estados	91,9%	92,8%	93,6%

Colheita

Estado	Semana até:		
	2024	2025	
	6/jan	29/dez	5/jan
Tocantins	4,0%	0,0%	0,0%
Maranhão	3,0%	4,1%	4,4%
Mato Grosso	0,0%	1,0%	1,3%
Goiás	0,0%	5,0%	5,0%
Santa Catarina	0,0%	0,0%	0,0%
Rio Grande do Sul	0,0%	0,0%	0,0%
6 estados	0,5%	0,2%	0,3%



Beans: varying conditions

The bean harvest advanced to 0,2% of the area.

In Mato Grosso, the harvest is limited by frequent rains, while in Paraná early areas are already ready for harvest.

Goiás prioritizes phytosanitary treatments, and in Minas Gerais the harvest should begin in irrigated areas.

Bahia has started harvesting in the west of the state, while planting continues in Maranhão and Tocantins, with challenges related to irregular rainfall.



Feijão 1ª - Safra 2024/25

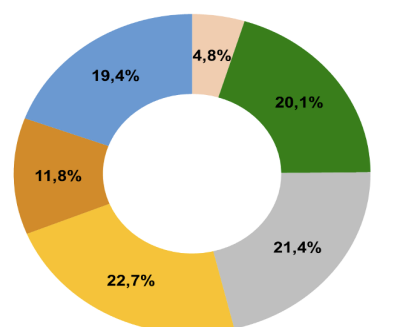
(Esses 8 estados correspondem a 91% da área cultivada)

Semeadura

Estado	Semana até:		
	2024	2025	
	6/jan	29/dez	5/jan
Piauí	0,0%	2,0%	4,0%
Bahia	71,0%	56,5%	67,8%
Goiás	100,0%	100,0%	100,0%
Minas Gerais	99,0%	100,0%	100,0%
São Paulo	100,0%	100,0%	100,0%
Paraná	100,0%	100,0%	100,0%
Santa Catarina	100,0%	95,0%	100,0%
Rio Grande do Sul	94,0%	93,0%	98,0%
8 estados	68,5%	66,1%	69,8%

Colheita

Estado	Semana até:		
	2024	2025	
	6/jan	29/dez	5/jan
Piauí	0,0%	0,0%	0,0%
Bahia	0,0%	0,0%	0,0%
Goiás	5,0%	0,0%	0,0%
Minas Gerais	0,0%	0,0%	0,0%
São Paulo	100,0%	100,0%	100,0%
Paraná	40,0%	25,0%	35,0%
Santa Catarina	17,0%	3,0%	13,6%
Rio Grande do Sul	13,0%	19,0%	23,0%
8 estados	17,9%	16,6%	19,4%



■ Emergência
■ Floração
■ Maturação
■ Desenvolvimento vegetativo
■ Enchimento de grãos
■ Colhido

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Eradication of *Cydia pomonella* in Brazil completes 10 years

Pest monitoring is still ongoing through traps in orchards

06.01.2025 | 14:12 (UTC -3)

Darlene Silveira, Cultivar Magazine edition



Photo: Julia Chagas

Brazilian apples have gained competitiveness in the market thanks to

the eradication of *Cydia pomonella* in 2014, a fact that completed 10 years. The Ministry of Agriculture and Livestock (Mapa) published Normative Instruction No. 10, in 2014, declaring Brazil free of the first insect pest to be eradicated in the country. The ceremony took place in Vacaria, in Rio Grande do Sul, with the presence of the Minister of Agriculture, producers, technicians, among other authorities.

“This achievement is a source of pride for all of us, reinforcing our responsibility to maintain this phytosanitary status.

Eradication was a milestone, but it is the continuous monitoring that sustains this achievement. Therefore, we will remain vigilant in protecting our agriculture and

keeping Rio Grande do Sul and Brazil free from this pest,” says the head of the Plant Health Defense Division of the Secretariat of Agriculture, Livestock, Sustainable Production and Irrigation (Seapi), Rita Antochevis.

Currently, Seapi has more than 100 traps installed to monitor the pest in the municipalities of Vacaria, Caxias do Sul, Bom Jesus, Arvorezinha and Anta Gorda.

In turn, the researcher and entomologist at Embrapa Grape and Wine, Adalecio Kovaleski, explains that *Cydia pomonella* It is one of the main pests of apples and pears in the main producing regions in the world. “In Brazil, the first detection occurred in 1991, in traps installed in the urban area of ??Vacaria, in Rio Grande do

Sul”, he stated.

“Based on the first captures, a monitoring program was developed using pheromone traps in the main urban areas of the apple-producing municipalities in Brazil, at the entry points for imported apples and pears, as well as on the side of the highways along which the fruits were transported,” recalls Kovaleski.

According to the researcher, with the intensification of monitoring, outbreaks of the pest were detected in Lages (SC), and in Vacaria, Bom Jesus and Caxias do Sul, in Rio Grande do Sul. “Starting the eradication program was a joint decision between Brazilian apple producers, Mapa, Embrapa and state phytosanitary defense agencies,” Kovaleski points out.

“All of the program’s actions were discussed by a committee made up of institutions, which assessed the progress made step by step. We found that, with the eradication of hosts from urban areas, there was a significant reduction in trap captures, with the last specimen captured in November 2011,” says Kovaleski, who, after three years without captures, MAPA published Normative Instruction No. 10.

For the entomologist, the eradication meant a gain in competitiveness for Brazilian apples, due to the reduction in production costs, reduction in the application of insecticides, less environmental contamination, in addition to the restriction on the entry of apples and pears from countries with inadequate

management. “Therefore facilitating the opening of markets demanding quarantine pests and pesticide residues.”

History



Photo: Julia Chagas

According to the agronomist at Seapi in Erechim, Claudir Santa Catarina, the *Cydia pomonella* is a pest of economic relevance due to the negative impact it

causes on apple crops around the world. He says that, in collaboration with Mapa, Seapi established a phytosanitary certification network as a measure to help control the *Cydia pomonella*.

“The construction of this network was based on the following pillars: training of technical professionals to monitor production and detect the pest, and qualification with official bodies of these professionals to compose a national registry of phytosanitary certification of origin (or consolidated in the case of processing). This network was very important to disseminate knowledge and the need to contribute to the agents involved in pest control”, explains Santa Catarina.

According to the server, in 2002, Seapi understood that it should take over the service of issuing transit permits, also regulated in regulation 10 of the Ministry of Agriculture, Livestock and Supply (MAPA), because it understood that this permit is the end of the entire phytosanitary certification system. “This service was inaugurated on June 17, 2002. We opened our first post in Vacaria and began issuing transit permits,” recalls Santa Catarina.

He adds that Seapi also established a network of transit permit issuing and phytosanitary inspection points, with the inspection posts in Vacaria, Torres, Iraí and Erechim. “We then opened new ones in Bento Gonçalves, Caxias do Sul and Farroupilha. Later, in Vale do Caí,

precisely to involve citrus in the phytosanitary certification culture similar to that of apples. This was a fundamental collaboration by the Secretariat, which helped crown the success of the program that aimed to eradicate this pest in Rio Grande do Sul and Brazil,” he says proudly.

“The department and its employees (state agricultural inspectors) have been improving and qualifying their work and, to this day, there is a pest monitoring network in place to ensure that it does not return to the country or the state, ensuring that there is no harm to the apple production chain,” concludes the agricultural engineer.

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Syngenta announces deal with Olfar Agro

Agreement covers management of Atua Agro stores in Rio Grande do Sul and Agrocerrado units in Goiás.

06.01.2025 | 13:44 (UTC -3)

Cultivar Magazine



Syngenta Comercial Agrícola Ltda. announced the conclusion of a deal with Olfar Agro, which will now manage Atua Agro stores in Rio Grande do Sul and the

Agrocerrado units in Goiás.

According to information from the companies, this is a legal transaction concluded on December 18, 2024. It refers to the establishment of a commercial partnership for the operation of commercial establishments owned by Syngenta.

The business covers commercial activities related to the distribution of agricultural inputs in the states of Rio Grande do Sul and Goiás, including all operating contracts, licenses, authorizations, employees, intellectual property and inventory.

The partnership will be structured so that Olfar is responsible for the operation on its own behalf.

The deal was submitted for analysis by the Administrative Council for Economic Defense (Cade).

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Research reinforces the importance of pollinators, pollen and cultivars

It is essential to understand the behavior of each species, scientists argue

06.01.2025 | 09:06 (UTC -3)

Cultivar Magazine



Photo: Susanne Schiele

Researchers from the University of Göttingen, Germany, argue that the generic promotion of pollinators, although important, has neglected factors such as the identity of pollinator species and the spatial distribution of cultivars, both of which are determinants of fruit quality.

“It is not enough to increase the density of pollinators. It is essential to understand the specific behavior of each species and plan the arrangement of cultivars in agricultural fields,” says Professor Teja Tscharntke, one of the authors.

economic impacts

About 75% of major agricultural crops depend partially or entirely on pollinators,

which contribute to 35% of global food production.

Furthermore, crops dependent on animal pollination account for more than 90% of the vitamin C and antioxidants in the human diet, generating an estimated annual economic value of between US\$235 and 577 billion.

Species such as bees have a direct impact on the nutritional quality of agricultural products. For example, in rapeseed, they increase unsaturated fatty acids and oil content, while in avocados, they increase fruit weight and commercial quality.

Cultivars and interactions

Fruit quality also depends on the interaction between the identity of the transferred pollen and the choice of cultivars.

Studies with strawberries, for example, have shown that bee-pollinated fruits are firmer, less deformed and have better coloration than self-pollinated ones.

However, these effects vary between cultivars, highlighting the importance of genetic selection and agronomic planning.

Other cases, such as macadamia and Arabica coffee, show that pollen transport between closely related cultivars can significantly improve crop quality and yield. However, poor spatial arrangement or limited pollinating species can compromise

effective crossbreeding.

smart design

The configuration of the field and natural surroundings also plays an essential role.

More complex landscapes with greater habitat diversity attract richer pollinator communities, while extensive monocultures reduce species diversity and pollination quality.

In crops such as apples, the arrangement of pollinating cultivars in close proximity increases the efficiency and quality of the fruit.

More information can be found at

doi.org/10.1016/j.tplants.2024.10.004

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Crystal Crop Protection acquires active ingredient from Bayer

The purchase of ethoxysulfuron aims to commercialize the product in some Asian countries

06.01.2025 | 08:34 (UTC -3)

Cultivar Magazine



Crystal Crop Protection has announced the global acquisition of Bayer's active ingredient ethoxysulfuron. The acquisition is aimed at commercializing the product in

select Asian countries. The move marks Crystal's 13th strategic transaction and Bayer's second acquisition. In 2021, the company had acquired cottonseed, millet and mustard seed portfolios in India.

According to a statement from Crystal Crop, this acquisition is one of the largest ever made and is expected to increase EBITDA by 20%. The transaction strengthens its leadership in the rice herbicide market.

Sustainable expansion

The transaction includes the registration of the Sunrice trademark and product mix containing ethoxysulfuron. This ingredient is recognized for its effectiveness in

controlling broadleaf and sedge weeds in rice and cereal crops.

According to the statement, the acquisition is in line with Crystal's mission to provide sustainable, low-cost solutions with local product manufacturing. The strategy promises cost synergies and increased accessibility for farmers in India, South and Southeast Asia, including countries such as Vietnam, Bangladesh, Thailand and Pakistan.

Further information

When asked about the matter, Bayer confirmed the deal and said that the companies "will work together throughout the execution of the agreement to ensure

that farmers continue to have access to the solutions they need."

Bayer will continue to produce and distribute Council Activ (ethoxysulfuron + triafamone) in India for at least five years, until 2029. The company will retain the Council Activ trademark.

"Bayer continually evaluates its portfolio of solutions to ensure consistent alignment with our long-term strategic objectives. As part of this regular review, the decision was made to sharpen our focus on building new innovations within Crop Science that will enable Bayer to continue shaping the future of agriculture," the company explained in a statement.

In Brazil, Bayer uses the brand [Gladium](#) to commercialize ethoxysulfuron

(ethoxysulfuron, C₁₅H₁₈N₄O₇S, CAS 126801-58-9). The Gladium product in Brazil will not be affected by the agreement.

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