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Crop Science Weekly Briefing

30 January 2024

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Contents

EU Parliament Ctee OKs new rules on NGTs

25 January 2024

The European Parliament's environment, public health and food safety committee, ENVI, has approved European Commission proposals to allow plants produced through certain new genomic techniques (NGTs) to be regulated as conventionally bred.

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The Commission's proposal came **in July**. It seeks to create two categories of plants obtained by NGTs, including one comparable to naturally occurring or conventional plants. Committee MEPs backed the proposal this week by 47 votes to 31, with four abstentions.

A major amendment from the MEPs was a full ban on patents.

However, time is short for approval of a law before EU elections. To become law, the proposal would have to be adopted by EU member states in the Council of Ministers as well as the Parliament. A plenary vote on the proposal is scheduled for two weeks' time.

If approved, the proposed rules would modify EU Regulation 2017/625 on official controls to ensure the application of food and feed law, rules on animal health and welfare, plant health and crop protection products.

MEPs also agreed that all NGT plants remain prohibited in organic production as their compatibility requires further consideration.

Category 1 and 2

The focus of the proposal are potential exclusions from rules governing genetically modified products on plants produced by targeted mutagenesis and cisgenesis (including intragenesis), products containing or consisting of these plants, and food and feed containing, consisting or produced from these plants.

Those plants that fall under category 1 (NGT 1) would include those that are deemed to also be able to occur naturally or by conventional breeding. NGT plants that meet these criteria would be treated as conventional plants and exempted from the requirements of EU GMO legislation under Directive 2001/18. For NGT 1 plants, MEPs amended the proposed rules on the size and number of modifications needed for an NGT plant to be considered equivalent to conventional plants. The lawmakers also want NGT seeds to be labelled accordingly and to set up a public online list of all NGT 1 plants.

There would be no mandatory labelling at consumer level for the NGT 1 products. However, MEPs want the Commission to report on how consumers and producers' perception of the new techniques is evolving, seven years after entry into force.

For those plants categorized as NGT 2, MEPs agreed to maintain GMO legislation requirements, including mandatory labelling of products as GMOs.

To incentivize uptake of the technology, MEPs have agreed to an accelerated procedure for risk assessment, taking into account their potential to contribute to a more sustainable agri-food system, but underline that the so-called precautionary principle must be respected.

Patent ban

MEPs amended the proposal to introduce a full ban on patents for all NGT plants, plant material, parts thereof, genetic information and process features they contain. They cited a need to avoid legal uncertainties, increased costs and new dependencies for farmers and breeders.

The committee's lawmakers have also requested a report by June 2025 on the impact of patents on breeders' and farmers' access to varied plant reproductive material as well as a legislative proposal to update EU rules on intellectual property rights accordingly.

Sustainability strategies

The Commission has often repeated its **conviction** that NGTs could contribute to the objectives of EU strategies, notably the European Green Deal and the Farm to Fork and Biodiversity strategies. It says that the proposal aims to: give incentives to steer the development of plants towards more sustainability; ensure transparency about all NGT plants on the EU market (for instance, through labelling of seeds); and offer robust monitoring of economic, environmental and social impacts of NGT products.

In 2021, the Commission decided that **new legislation** was needed to regulate plants produced using targeted mutagenesis and cisgenisis, following a study in response to a 2018 Court of Justice of the European Union (CJEU) ruling that new mutagenesis techniques be regulated as GMOs. The EU executive said that NGTs had the potential to contribute to food sustainability targets under the EU Farm to Fork strategy, but that the existing EU GMO law was "not fit for purpose" for such innovative technologies. The Commission identified "persisting legal uncertainties in relation to new techniques and new applications".

The following year, an **EU consultation** on the matter revealed that almost 80% of respondents felt that the bloc's legislations governing GM crops under EU GMO Directive (2001/18) were not adequate for plants obtained by targeted mutagenesis or cisgenesis.

Last year, the CJEU made a **contrary ruling** that plants produced through in vitro use of mutagenesis could be excluded from the scope of Directive (2001/18), provided they had conventionally been used in a number of in vivo applications and had a long safety record with regard to those applications.

ENVI comments

The ENVI says that the proposed regulation is in line with the European Green Deal and the Farm to Fork strategy, laying down specific rules for the deliberate release and placing on the market of NGT plant and related food and feed. Currently, all plants obtained by NGTs are subject to the same rules as GMOs.

There were close to 1,200 amendments submitted covering all of the Commission's proposal. The ENVI comments that the regulation is "highly relevant, as NGTs provide the rapid development of plant varieties with specific characteristics, contributing to ensure food security and achieve a sustainable food system".

Nichino America/Sipcam Agro forge cross-licensing deal

23 January 2024

Japanese company Nihon Nohyaku's US subsidiary, Nichino America (Wilmington, Delaware), has agreed a cross-licensing deal with Sipcam-Oxon's US agrochemical business, Sipcam Agro USA (Durham, North Carolina). It involves Sipcam Agro gaining early access to Nichino's fenpyroximate-based miticide/insecticide, Fenpyroximate 5SC and 5EC, and Nichino distributing the former's fungicide, Eject (cymoxanil + propamocarb), in the US state of Arizona.

Getty Images

The development follows the companies forging a **similar deal** in September last year. That gained Nichino exclusive distribution rights to Eject in the state of California, besides affording Sipcam Agro early access to Nichino's buprofezin-based insect growth regulators, Odeza and Sussex.

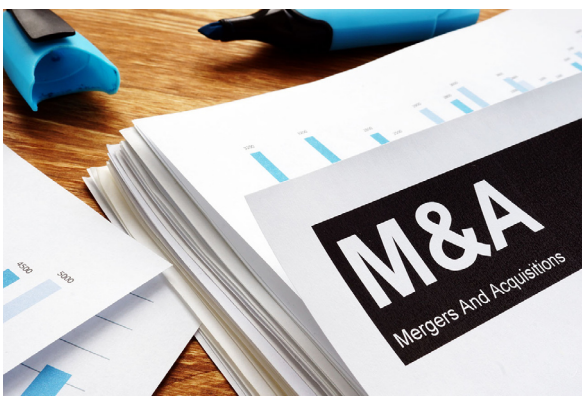
Nichino notes that the deal expands its distribution rights for Eject, which it rates as a "highly effective" product for the control of downy mildew on a variety of vegetable crops. Furthermore, it anticipates the partnership translating into the "optimization of market share" in the US for fenpyroximate-based offerings.

Nihon Nohyaku and Sipcam-Oxon have also collaborated internationally, including running a Brazilian **joint venture**, Sipcam Nichino Brasil, for several years.

Novozymes gets conditional EU nod for Chr Hansen takeover

29 January 2024

The European Commission has granted conditional EU clearance for Danish biotechnology company Novozymes' (Copenhagen) proposed takeover of peer business Chr Hansen (Horsholm). Last month's approval is conditional on compliance of certain commitments. Novozymes **agreed a deal** for the acquisition of Chr Hansen in December 2022.



Getty images

The Commission's inquiry into the takeover found that competition in the market for the manufacture of the enzyme, lactase, using genetic modification technology, would have been reduced. It has called for the merged business's divestment from the sector.

New identity

The enlarged business plans a new brand name, "**Novonesis**", upon closure of the deal. The name would be "gradually implemented". Novozymes expects to close the deal this quarter.

EFSA grants safety clearance to two GM corn varieties

29 January 2024

The European Food Safety Authority (EFSA) has granted safety clearance on applications for two genetically modified corn (maize) products. The outcomes follow its risk assessments for Corteva Agriscience seed business Pioneer Hi-Bred International's GM insect-resistant and herbicide-tolerant DP23211 and DP915635 corn events. The applications were each for import and processing and use in food and feed.

The regulator found that the consumption of food and feed from DP23211 and DP915635 corn does not represent a nutritional concern. The GMO Panel concluded that both varieties are as safe as their conventional non-GM counterparts.

In December last year, the USDA's Animal and Plant Health Inspection Service (APHIS) **deregulated** DP23211 corn.

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Scientific community urges MEPs to champion NBTs

24 January 2024

A coalition of 35 Nobel laureates and over 1,000 scientists has urged MEPs to advocate new breeding techniques (NBTs) in the EU in an **open letter**. The call for action implored regulators to take a "scientific and evidence-based approach" in policy making to tackle environmental challenges.

The scientific community outlined their support for the **draft law** on the regulation of plants obtained by NBTs and their use in food and feed, describing it as an "important step" to enhance sustainability in farming and energy. "The responsible use of [NBTs] that the legislation could unlock may contribute significantly to our collective pursuit of a more resilient, environmentally conscious, and food-secure future," read the note.

Getty

The call extended to alert MEPs of "anti-science lobbyists", adding that regulators needed to "rise above ideology and dogmatism". Experts quoted a report that suggests that failure to embrace NBTs could cost the EU around €300 billion ($331.1 at the current rate) annually across various sectors.

The letter went on to note that conventional breeding for climate-resilient crops is time-consuming and can take years. "[NBTs] help to make crop plants resilient to disease by precise and targeted edits to their genetic code thus making our ambitious and vital goals of pesticide reduction possible while still protecting farmers' yields," it read.

The coalition also highlighted that NBTs could play a role in reducing dependency on harmful pesticides for crops such as fruit trees and potatoes, which have challenging genetic characteristics. "These crops just happen to require most of the harmful pesticides used in the [EU] to protect against pests and diseases," they added.

EU proposal

In 2023, the European Commission's legislative proposal sought to establish two categories of plants obtained by NBTs – those comparable to naturally occurring or conventional plants, and those with more complex modifications. Both categories would be subject to different requirements to reach the market on account of their different characteristics and risk profiles.

To become law, the proposed Regulation must be adopted by EU member states in the Council and the European Parliament, following the ordinary legislative procedure. If approved, it would modify EU Regulation

2017/625 on official controls to ensure the application of food and feed law, as well as rules on animal health and welfare, plant health, and crop protection products.

Crop Science Market Reporting's in-depth analysis of global regulatory trends relating to NBTs can be **read here**.

Rallis' Q3 agchem sales fall 7%

29 January 2024

Rallis India registered a 6.6% decline in sales at its Crop Care division, comprising agrochemicals, to INR 5,660 million ($67.9 million at the average rate for the period) for its third fiscal quarter ended December 31, 2023. However, the company's seeds business witnessed robust sales, which rose a shade over 33% to INR 320 million ($3.8 million). Consolidated sales for the period fell around 5% to INR 5,980 million ($71.8 million).

The Crop Care division's quarterly overseas sales eroded 26% on account of weak demand and a resultant decline in prices, with the problem being exacerbated by an inventory glut. The decline offset gains scored by Rallis in its domestic market, where sales improved by 6%. Revenues of seeds, on the other hand, benefited from "calibrated placements", as well as demand generation exercises undertaken by the company, it says.

Despite the lukewarm performance, the Crop Care division's earnings before interest, tax, depreciation and amortization (EBITDA) rose more than 11% to INR 790 million ($9.5 million). Performance was aided by an improved product mix, as well as dynamic pricing in the domestic market. The division's profit after tax (PAT) was unchanged at INR 380 million ($4.6 million).

Rallis' Q3 results (INR million)

Qtr ended Dec 31	2022 ($ million)[1]	% change	2023 ($ million)[2]
Sales	6,300 (76.6)	-5.1	5,980 (71.8)
- Crop Care[3]	6,060 (73.7)	-6.6	5,660 (67.9)
- Seeds	240 (2.9)	+33.3	320 (3.8)
- EBITDA[4,5]	710 (8.6)	+11.3	790 (9.5)
- PAT[5,6]	380 (4.6)	-	380 (4.6)

[1] average rate for the quarter ended December 31, 2022; [2] average rate for the quarter ended December 31, 2023; [3] comprises agrochemicals; [4] earnings before interest, tax, depreciation and amortization; [5] takes into account only the Crop Care division; 6 profit after tax. Source: Rallis India.

Nine months

For the first nine months of the fiscal year, the Crop Care division saw a 14.3% fall in sales to INR 18,220 million ($220.3 million at the average rate for the period), while revenues from seeds expanded around 22% to INR 3,900 million ($47.2 million). Consolidated sales slipped around 10% to settle at INR 22,120 million ($267.4 million).

Rallis reported an around 1% drop in the Crop Care division's EBITDA to INR 2,640 million ($31.9 million), while its PAT contracted nearly 8% to INR 1,450 million ($17.5 million).

Rallis' nine-month results (INR million)

Nine months ended Dec 31	2022 ($ million)[1]	% change	2023 ($ million)[2]
Sales	24,440 (306.7)	-9.5	22,120 (267.4)
- Crop Care[3]	21,250 (266.7)	-14.3	18,220 (220.3)
- Seeds	3,190 (40.0)	+22.3	3,900 (47.2)
EBITDA[4,5]	2,670 (33.5)	-1.1	2,640 (31.9)
PAT[5,6]	1,570 (19.7)	-7.6	1,450 (17.5)

Rallis' nine-month results (INR million) (continued)			
Nine months ended Dec 31	**2022 ($ million)[1]**	**% change**	**2023 ($ million)[2]**

[1] average rate for the nine months ended December 31, 2022; [2] average rate for the nine months ended December 31, 2023; [3] comprises agrochemicals; [4] earnings before interest, tax, depreciation and amortization; [5] takes into account only the Crop Care division; 6 profit after tax. Source: Rallis India.

Outlook

Rallis notes that it is "closely monitoring" the recovery in the global agrochemical market, besides undertaking a "cautious approach" to address potential impacts caused by the El Niño weather system. The business anticipates market conditions recovering in the forthcoming fiscal year.

Biobest fully acquires Biobest Antalya

26 January 2024

Belgian biological pest control business Biobest (Westerlo) has completed its full acquisition of Turkish biological controls subsidiary Biobest Antalya. The company has acquired the remaining 40% of the business from Turkish biologicals enterprise Antilisan (Abdurrahmanlar).

Biobest rates Biobest Antalya as Turkey's leading company in bumblebee pollination and biological control. Senior vice-president of Biobest, Marc Mertens, welcomes the move. "Together [with Antilisan] we were able to make Biobest Antalya Turkey's leading player in biological control and bumblebee pollination. I also look forward to continue our commercial co-operation with Antilsan."

The acquisition is the latest in a series of Biobest takeovers, most recently a controlling stake in Brazilian company **Biotrop** Soluções Biológica. Antilsan says that it will use the sale funds to accelerate its plans in fertilizers, biostimulants and distribution of agrochemical products.

Ceres Solutions/Co-Alliance to combine operations

24 January 2024

Two US agricultural co-operatives based in the state of Indiana – Ceres Solutions Cooperative (Crawfordsville) and Co-Alliance Cooperative (Indianapolis) – have agreed to merge their operations. The combined entity is to operate as Keystone Cooperative from March 1, 2024. It will serve customers across the states of Illinois, Indiana, Michigan and Ohio.

Keystone will function through four divisions focusing on a variety of areas, including agronomy and grains. The business will employ over 1,700 staff, with Ceres and Co-Alliance anticipating it raking in $3 billion in annual revenues. They note that the development follows a joint venture between the parties, Endeavor Ag & Energy, which provides agronomic services within the state of Michigan.

Co-Alliance's president and CEO, Kevin Still, is to assume the same positions at Keystone, while Ceres' CEO, Jeff Troike, will become the executive vice-president of the combined organization alongside Co-Alliance's executive VP, Scott Logue.

Meristem/DeLong agree US supply deal

24 January 2024

US agricultural inputs supplier Meristem Crop Performance Group (Columbus, Ohio) has agreed a partnership with Clinton, Wisconsin-based US agricultural services business DeLong. The deal enables the latter to offer Meristem's portfolio of crop protection products.

The agreement covers the nutrient enhancer, Revline Hopper Throttle (*Azospirillium* spp), and the *Bacillus* spp-based residue management and nutrient release product, Excavator, among others. Revline Hopper Throttle is **based on** US agricultural biotechnology business NewLeaf Symbiotics' (St Louis, Missouri) Terrasym yield-enhancing technology.

DeLong has presence in 38 locations across the country.

Bayer/Spanish farmer union extend collaboration

24 January 2024

Bayer's Crop Science division has agreed to expand an existing collaboration framework with the Spanish union of smallholder farmers and ranchers (UPA) on scientific research, technological development and innovation in agriculture.

The deal will be focused on developing studies and projects in areas such as climate change, the availability of water resources, regenerative agriculture, generational change and agricultural digitization. It runs until 2028.

Bayer chief executive officer Protasio Rodríguez welcomes the move. "As a company, we work to support farmers in their daily work by providing innovative solutions, in seeds and in chemical and biological plant protection products, that allow them to improve productivity efficiently and responsibly with the environment. Working with UPA will allow us to strengthen our initiatives to address the challenges of the sector."

UPA general secretary Lorenzo Ramos stresses the need for collaboration between farmer representatives and leading companies in the sector, such as Bayer, "especially [for] small- and medium-holders and family farmers".

Ever.Ag acquires US ag software business

26 January 2024

US digital agriculture company Ever.Ag (Frisco, Texas) has acquired Dallas, Texas-based US agricultural software provider AgencyRoot. The acquisition includes the latter's software platform for crop insurance providers, with Ever.Ag terming the acquisition as a "strategic move".

Ever.Ag states that AgencyRoot's platform complements its software solutions, adding that the purchase will enable it to offer a diverse range of solutions "tailored to the unique needs" of the crop insurance industry.

DLF Seeds to cease R&D activities at Sweden site

24 January 2024

Danish forage and turfgrass seed supplier DLF Seeds will cease activities at its research and development site in Landskrona, Sweden by July 1, this year. The decision was taken after an investigation was unable to identify an economically viable option for the facility in the company's business portfolio.

The company states that the investigation to find alternative options for the site was conducted after DLF Seeds agreed last month to form a **joint venture** with peer French company Florimond Desprez (Cappelle-en-Pévèle).

"This is a very difficult decision as it marks the end of a long and proud plant breeding history in Landskrona," says chief scientific officer and EVP Derek Bartlem, adding that the closure will affect some 70 employees.

DLF Seeds reports that consultations with unions have been conducted and will continue, while internal teams will integrate knowledge and breeding materials developed in Landskrona into the new joint venture.

Micropep gets US EPA classification for biofungicide ai

25 January 2024

French agricultural biotechnology business Micropep Technologies (Toulouse) reports receiving US EPA classification for its peptide-based biofungicide active ingredient, MPD-01. The Agency has categorized the ai as "biochemical-like", with the company looking to leverage the development to seek its registration in the country.

Micropep rates MPD-01 as a variant of a naturally occurring micropeptide found in tomato plants. The company points out that it presents a non-toxic mode of action to control target pests, adding that the ai's discovery marks a "significant advancement in agricultural science". It states that the biofungicide is "inherently less toxic" to humans and wildlife, while being more selective for fungal pathogens. Furthermore, the firm emphasizes that the ai is effective at lower doses and rapidly biodegrades in the environment.

MPD-01 has undergone field trials in various regions, including the US states of California and North Carolina, as well as countries such as France and Paraguay. Micropep says that it has exhibited efficacy when used on potatoes, soybeans and grapes, with assessments indicating its potential to be an "essential component" in IPM programs. The company cites third-party trial results to claim that the ai provides up to 75% disease control compared with competing solutions delivering around 50% control.

Micropep notes that it is working on additional leads involving two other peptides – MP594 and MP478 – claiming that they have exhibited "promising results and excellent efficacy" in field trials. Additionally, it highlights utilizing generative artificial intelligence (AI) to design a library of "thousands" of antifungal peptides that are compatible with proprietary manufacturing rules.

Bayer's Vios FX registered in the US

23 January 2024

Bayer's Crop Science division reports receiving registration from the US EPA for its herbicide, Vios FX (thiencarbazone-methyl + fluroxypyr). The product is intended for the control of several weed species that are resistant to Group 1 herbicides. These include foxtails (*Setaria* spp), kochia (*Bassia scoparia*) and wild oats (*Avena fatua*).

Vios FX offers a broad range of tank mixing options, says Bayer, adding that that the formulation can be combined with its other products, such as the herbicide, Huskie (bromoxynil + pyrasulfotole), for wider coverage of weed species.

Sipcam Agro debuts Eden's Mevalone in California

26 January 2024

Italian company Sipcam-Oxon's US agrochemical business, Sipcam Agro USA (Durham, North Carolina), has launched UK biological crop protection company Eden Research's (Cirencester) foliar biofungicide, Mevalone

(based on the terpene active ingredients, eugenol, geraniol and thymol), in the US state of California. Sipcam Agro and Eden have an ongoing collaboration for marketing the product in the country.

The development follows authorities in California **granting registration** to Mevalone earlier this month, extending its **footprint** beyond the 17 US states where it was registered last year. While the offering is intended for the control of bunch rot (Botrytis cinerea) and powdery mildew (Uncinula necator) on wine, table and raisin grapes, its application for curbing U necator has yet to be approved by the state.

Sipcam Agro highlights Mevalone's curative action against spore germination of the target pathogens, as well as its preventative benefits when applied at the recommended timings. The company claims that the product's performance is on par with "best conventional standards". It emphasizes that the offering has "one of the lowest risks" of products developing resistance to Botrytis spp, adding that it could be applied up to four times every season.

The EPA **approved** Mevalone's ais in October 2022, after having granted tolerance exemptions for pesticide residues to **thymol** and **eugenol**.

Bioglobal launches BioAttract semiochemical brand

25 January 2024

Chinese biologicals company Bioglobal has launched three kairomone semiochemical products under the BioAttract brand – BioAttract, BioAttract-Heli and BioAttract-FAW. The products are designed for the broadacre market and can also be utilized for vegetable cash crops, among other areas where pesticide use has been restricted, says the business.

The flagship product, BioAttract, provides broad attraction for *Heliothis* spp and *Spodoptera* spp across soybeans, corn (maize), cotton, wheat, barley and sorghum. Bioglobal says that BioAttract is well suited to support current pest control products.

Meanwhile, BioAttract-Heli is a specialized kairomone formulation for use in cotton and targets *Heliothis* spp. The formula provides a "quicker knockdown effect with a higher attraction response", says Bioglobal, adding that the benefits are realized in a "mid-heavy generation population" in resistant *Heliothis* spp, including on *Bt* cotton.

Furthermore, the product has undergone extensive trials in cotton throughout China and is being assessed through large-scale trials in over 2,500 ha of farmland in Brazil, among other countries. Co-operative arrangements have been established for distribution in China, reports the business.

Bioglobal states that BioAttract-FAW is a new formulation to address the problem of the migration of fall armyworms (*Spodoptera frugiperda*) in Asia. The business points to recent trials that showed promising results in "less-than-ideal conditions", including in low temperatures. BioAttract-FAW will undergo further independent trials and redevelopment for commercial worldwide distribution.

BioConsortia advances nitrogen fixing STs to new crops

29 January 2024

US microbial products company BioConsortia (Davis, California) has expanded its portfolio of nitrogen-fixing seed and soil treatment products. The company says that it is seeking to employ the products to expand the addressable market to crops outside of cereals including lettuces, potatoes and tomatoes.

Chief executive officer Marcus Meadows-Smith rates the development as "exciting". Senior vice-president of research and development Dr Hong Zhu welcomes trials results of such products. "The field results in potatoes and other vegetables continue to impress, and we're excited to continue our work with vegetable seed developers, input providers and growers around the globe, as we get one step closer to product launch," he says.

BioConsortia's nitrogen-fixing seed treatment products have already been validated through hundreds of trials in cereals such as corn (maize), rice and wheat, the company says. In fruit and vegetable markets, BioConsortia will offer seed treatments and formulations designed for application to soil or through drip irrigation.

Syngenta debuts herbicides in Spain

29 January 2024

Syngenta Crop Protection has launched two herbicides in Spain. The debuts include those for the post-emergence cereal graminicide, Axial One (cloquintocet-mexyl 11.3 g/liter + pinoxaden 45 g/liter+ florasulam 5 g/liter), and the herbicide, Flame Duo (tribenuron methyl + florasulam).

Axial One is an emulsion concentrate formulation provides post emergence control in barley and wheat. Pinoxaden and florasulam active offers control of broadleaf weeds, such as wild oats (*Avena* spp) and ryegrass (*Lolium* spp) from the former, and cleavers (*Galium* spp) and common poppies (*Papaver rhoeas*) from the latter. Syngenta recommends the herbicide's use for broadleaf control in combination with sulfonylureas, such as its Axial One (pinoxaden+ florasulam) and Amadeus Top (thifensulfuron-methyl + tribenuron-methyl).

Flame duo is a water soluble granule formulation for post emergence control of dicot weeds in barley, oats, rye, triticale and wheat. The systemic herbicide is a foliar application solution that also acts on a plant's roots.

Syngenta presented the debuted products at the Spanish trade fair, Jornadas de Cereal 2024, in Pamplona last week.

Spanish volume agchem market down 25% in 2022

23 January 2024

The Spanish agrochemical market fell in active ingredient volume terms by 25% to 57,164 metric tons in 2022, national media report. They cite preliminary figures from the Ministry of Agriculture. The major segments were of fungicides and bactericides, which made up over (56.3%) half of sales.

Provisional data from an official study showed sales of the leading segment totalled 32,160 metric tons, a fall of 22.7% on sales in 2021.

Sales of herbicides tanked 33.7% to 12,186 metric tons, accounting for 21.3% of the market, while those of insecticides dipped just 1.3% to 9,830 metric tons, some 17.2% of the total.

The most minor segments were composed of molluscicides, growth regulators and "other" ai products. Sales plunged by more than half (-53.9%) to 2,988 metric tons. Those made up some 5.2% of sales.

The Ministry reportedly cites drought as a leading contributor to the fall in sales. Other factors include falling profitability in farming. The authority claims that the economic situation has encouraged moves into the "black market" for pesticides with rising national police actions to counter such trade.

US ag robotics start-up raises $4 million

29 January 2024

US agricultural robotics start-up Neatleaf (San Francisco, California) has raised $4 million from a consortium of investors. The business reports the development of an "autonomous" robotic platform, Neatleaf Spyder, and intends to utilize the capital to accelerate its production.

Neatleaf Spyder leverages artificial intelligence (AI) to scan crops cultivated indoors and generates "millions of data points" on plant health and growth metrics, says the company. The company explains that the information is analyzed to deliver actionable insights that help in the assessment and monitoring of crops, besides implementing remedial measures.

Furthermore, Neatleaf claims that its innovation has the ability to scan plants multiple times, and "go back in time" to highlight when a problem began. It points out that the robot equips users with remote monitoring capabilities and can also be used to compare growth conditions across multiple cycles, as well as farming facilities.

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