



Corteva Agriscience, BASF and MS Technologies Sign Agreement to Bring Industry-first Soybean Trait Stack to Market in United States, Canada

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New biotech trait targeted at soybean nematode resistance to combine with leading herbicide tolerance to help soybean farmers optimize yield potential

INDIANAPOLIS, Ind. and RESEARCH TRIANGLE PARK, N.C. and WEST POINT, Iowa, June 29, 2022 /PRNewswire/ -- Corteva Agriscience, BASF and MS Technologies™ today announced they have entered into a mutually beneficial trait licensing agreement to develop next-generation Enlist E3® soybeans with the nematode resistant soybean (NRS) trait for farmers in the United States and Canada.

Drone photo from a 2021 BASF field trial plot near Kewanna, IN



The left four rows are native SCN resistance alone (PI88788 source) and the right four rows are native resistance (PI88788 source) + BASF's NRS trait. BASF trials demonstrated that the NRS trait provides an average additional 8% yield benefit above today's SCN-resistant varieties.

As part of this agreement, Corteva and MS Technologies have licensed the Enlist E3 soybean trait to BASF for development with the NRS trait in BASF germplasm. BASF has licensed its NRS trait to Corteva and MS Technologies for use in Enlist E3 soybeans. The three companies anticipate commercialization of Enlist E3 soybean varieties containing the NRS trait in the late 2020s, pending applicable regulatory reviews and completion of field testing.

The new NRS trait is expected to provide unprecedented protection against nematode pests in soybeans, including soybean cyst nematode (SCN). A common parasite in North America, SCN accounts for more than \$1 billion¹ in economic losses for U.S. farmers each year. The NRS trait provides yield protection above and beyond the current industry standard native SCN resistance traits, including PI88788 and Peking, as well as protection against some of the most economically important nematode species for soybean farmers beyond North America, including *Pratylenchus brachyurus*².

"Our nematode resistant soybean trait will be the first commercially available biotechnology trait developed to control nematodes," said Linda Trolinder, Senior Vice President of BASF Seeds and Traits R&D. "BASF is in its 5th year of advanced field testing the NRS trait in the U.S. and in our trials, it has demonstrated an average 8% yield benefit above today's SCN-resistant varieties."

The Enlist® weed control system is an industry-leading system for soybeans, corn and cotton. Enlist E3 soybeans are tolerant to 2,4-D choline, glyphosate and glufosinate herbicides, giving farmers additional options to manage resistant and hard-to-control weeds.

"Farmers have embraced the Enlist E3 soybean trait, which offers maximum flexibility among the industry's various weed-control systems," said Tim Glenn, Executive Vice President, Seed Business Unit, Corteva Agriscience. "The addition of the NRS trait to Enlist E3 soybeans is a logical next step for Corteva. Offering both trait technologies together will provide soybean farmers with additional functionality for pest management."

The Enlist E3 soybean trait is jointly developed and owned by Corteva and MS Technologies and was commercialized in 2019.

"We are pleased to see the technology fit various growing environments. The agreement between MS Technologies, BASF and Corteva enables access of Enlist E3 soybeans to more farmers in the United States and Canada," noted Joseph Merschman, President of MS Technologies. "We are excited to be working toward a new, sustainable option for farmers who want to manage weeds and nematodes in high-performing soybean varieties."

Terms of the agreement were not disclosed.

About Corteva Agriscience

Corteva, Inc. (NYSE: CTVA) is a publicly traded, global pure-play agriculture company that combines industry-leading innovation, high-touch customer engagement and operational execution to profitably deliver solutions for the world's most pressing agriculture challenges. Corteva generates advantaged market preference through its unique distribution strategy, together with its balanced and globally diverse mix of seed, crop protection, and digital products and services. With some of the most recognized brands in agriculture and a technology pipeline well positioned to drive growth, the company is committed to maximizing productivity for farmers, while working with stakeholders throughout the food system as it fulfills its promise to enrich the lives of those who produce and those who consume, ensuring progress for generations to come. More information can be found at www.corteva.com.

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About BASF's Agricultural Solutions Division

Farming is fundamental to provide enough healthy and affordable food for a rapidly growing population while reducing environmental impacts. Working with partners and agricultural experts and by integrating sustainability criteria into all business decisions, we help farmers to create a positive impact on sustainable agriculture. That's why we invest in a strong R&D pipeline, connecting innovative thinking with practical action in the field. Our portfolio comprises seeds and specifically selected plant traits, chemical and biological crop protection, solutions for soil management, plant health, pest control and digital farming. With expert teams in the lab, field, office and in production, we strive to find the right balance for success – for farmers, agriculture and future generations. In 2021, our division generated sales of €8.2 billion. For more information, please visit www.agriculture.basf.com or any of our social media channels.

About MS Technologies

MS Technologies™ LLC is a leading trait, technology and soybean genetics provider. MS Technologies features a portfolio of in-house traits, as well as wide access to other traits and technologies through collaborative agreements with other parties. For more information on MS Technologies, visit our website at www.mstechseed.com.

Corteva Agriscience Forward-looking Statement

This communication contains certain estimates and forward-looking statements within the meaning of Section 21E of the Securities Exchange Act of 1934, as amended, and Section 27A of the Securities Act of 1933, as amended, which are intended to be covered by the safe harbor provisions for forward-looking statements contained in the Private Securities Litigation Reform Act of 1995, and may be identified by their use of words like "plans," "expects," "will," "anticipates," "believes," "intends," "projects," "estimates" or other words of similar meaning. All statements that address expectations or projections about the future, including statements about Corteva's regulatory approvals, product development and performance are forward-looking statements. Corteva disclaims and does not undertake any obligation to update or revise any forward-looking statement or other estimate, except as required by applicable law. A detailed discussion of some of the significant risks and uncertainties which may cause results and events to differ materially from such forward-looking statements or other estimates is included in the "Risk Factors" section of Corteva's Annual Report on Form 10-K, as modified by subsequent reports on Form 10-Q and Current Reports on Form 8-K.

BASF Forward-looking Statement

This communication contains forward-looking statements. These statements are based on current estimates and projections of BASF and currently available information. Forward-looking statements are not guarantees of the future developments and results outlined therein. These are dependent on a number of factors; they involve various risks and uncertainties; and they are based on assumptions that may not prove to be accurate. Such risk factors include those discussed in [Opportunities and Risks](#) in BASF's annual report 2021. We do not assume any obligation to update the forward-looking statements contained in this report above and beyond the legal requirements.

The transgenic soybean event in Enlist E3® soybeans is jointly developed and owned by Corteva Agriscience and M.S. Technologies, L.L.C.™ ®™ Trademarks and service marks of Corteva Agriscience and its affiliated companies.

¹ Bandara AY, Weerasooriya DK, Bradley CA, Allen TW, Esker PD. 2020. Dissecting the economic impact of soybean diseases in the United States over two decades. PLoS ONE 15(4): e0231141. <https://journals.plos.org/plosone/article?id=10.1371/journal.pone.0231141>. Accessed June 15, 2022.

² Based on BASF field trial data.



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SOURCE Corteva, Inc.

Kasey Anderson, Corteva Agriscience, 317-337-4478 office, kasey.anderson@corteva.com; Miracle King-Wilson, BASF Agricultural Solutions, 919-451-7230 mobile, miracle.king-wilson@partners.basf.com; David Thompson, MS Technologies, 515-677-2605, dpthompson@stineseed.com