



12647 Olive Boulevard, Suite 410, St. Louis, MO 63141 • PHONE: (314) 576-1770

September 16, 2021

Ms. Cindy Eck  
Biotechnology Regulatory Services  
Animal and Plant Health Inspection Service  
U.S. Department of Agriculture  
4700 River Road, Unit 147  
Riverdale, MD 20737-1236

*Submitted electronically via Federal eRulemaking Portal*

**RE: Environmental Assessments; Availability, etc.: BASF Corporation; Determination of Nonregulated Status of Plant-Parasitic Nematode-Protected and Herbicide Tolerant Soybean (APHIS-2020-0023-0012)**

Dear Ms. Eck:

On behalf of the American Soybean Association (ASA), I am writing to provide comments on Animal and Plant Health Inspection Service's (APHIS) draft environmental and plant pest risk assessments prepared regarding the petition seeking nonregulated status for soybean event GMB151. ASA represents more than 500,000 U.S. soybean farmers on domestic and international policy issues important to the soybean industry and has 26 affiliated state associations representing 30 soybean-producing states.

ASA appreciates APHIS-Biotechnology Regulatory Services' (BRS) work on these draft risk assessments and agrees with their findings, that making a nonregulated status determination for GMB151 is unlikely to pose a plant pest risk or have an environmental impact when compared with the no action alternative. As ASA has previously stated on the record for this docket, and as we detail further below, we believe the new traits that would become available to soybean growers through GMB151 – both soybean-cyst nematode (SCN)-resistance and 4-hydroxyphenylpyruvate dioxygenase (HPPD)-inhibitor herbicide tolerance – will offer agronomical and economic benefits, as well as maintaining important environmental benefits that may otherwise be jeopardized.

As we attested in our previous comments supporting the nonregulated status petition for GMB151, there are numerous benefits that would be derived from access to these traits. SCN is the single-most damaging pest for U.S. soybean producers, inflicting more than \$1.2 billion in losses annually,<sup>1</sup> though costs may be higher due to the difficulty diagnosing SCN damage. As BRS notes, most control of SCN is through soybean varieties containing native resistance alleles, though resistance to these alleles by SCN is growing as nematode populations select for genetic resistance. By providing growers another genetic tool, it would allow growers to retain their existing reliance on genetic controls for SCN. The gene in GMB151 that expresses the anti-SCN protein Cry14Ab-1 (which could also be stacked with other native resistance alleles for increased effect) would be just such a tool. This stands to provide additional economic and agronomical benefit for farmers.

The HPPD-inhibitor herbicide tolerant trait will also offer multiple benefits to growers. There are currently no herbicides with a HPPD-inhibitor (Group 27) mode of action (MOA) registered for use in soybeans due to the

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<sup>1</sup> University of Missouri: Extension. August 2010. "Soybean Cyst Nematode: Diagnosis and Management." Accessed September 14, 2021. <https://extension2.missouri.edu/g4450>

crop's sensitivity to the chemistry class (though, as BRS notes, this class of herbicides is already being extensively used by other crops – use by soybean growers would likely result in a shift from other chemistries). By accessing tolerance to HPPD-inhibitors, soybean growers would have an entirely new tool to control yield-robbing weeds. This would have an immediate benefit for protecting soybean crops. A study using data from 2007-2013 found that if left unchecked, yield losses due to weeds would be greater than 52 percent in soybeans, resulting in more than \$16.2 billion in losses annually.<sup>2</sup> In short, soybean farmers need access to new crop protection tools, like HPPD-inhibitors, to retain their economic and agronomic viability.

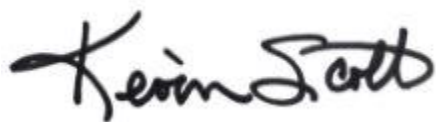
Access to crops tolerant to HPPD-inhibitors would not just enhance a grower's ability to protect their crop, but also maintain their environmental sustainability footprint as well. Important conservation practices, such as reduced tillage or no-till, are vital for minimizing soil erosion; reducing nutrient losses to watersheds; and sequestering carbon in the soil and decreasing greenhouse gas emissions. However, if growers do not have effective herbicides to control damaging weeds, they often have no choice but to resort to mechanical tillage to terminate weeds and protect their crop, jeopardizing these important existing environmental benefits. The tendency of weed populations to, over time, genetically select for resistance to herbicides erodes the efficacy of the chemistry.

To quantify these existing environmental benefits, a 2018 analysis found that the emergence of glyphosate-resistant weed populations resulted in a decrease of conservation tillage and no-till in soybeans by 6.2 percent and 9.2 percent respectively, subsequently reducing water quality and climate benefits by an equivalent of \$470 million, with further benefit losses accruing by \$70 million annually.<sup>3</sup> Having access to HPPD-inhibitor tolerant soybeans could give growers a new herbicide option to manage weeds that have developed resistance to other chemistries, retaining the environmental sustainability of their operations.

As it specifically relates to the draft plant pest risk assessment, ASA agrees with BRS' finding that GMB151 is unlikely to pose a plant pest risk. The novel genetic material inserted, and the resulting proteins and traits expressed do not pose a plant pest risk. To the contrary, these traits help to better protect soybean crops from economically damaging pests.

As ASA has previously commented, we have and continue to support the petition seeking nonregulated status for soybean event GMB151. We appreciate APHIS-BRS' work on these draft risk assessments and agree that the proposed action will not result in a plant pest risk or environmental impact. In reality, access to this new soybean event will allow growers to prevent the loss of existing environmental benefits, while also improving their agronomical and economic viability. We are grateful for the opportunity to comment and stand ready to assist the Service in its continued work on this important petition.

Sincerely yours,



Kevin Scott  
President

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<sup>2</sup> Soltani, Nader, J. Anita Dille, Ian C. Burke, Wesley J. Everman, Mark J. VanGessel, Vince M. Davis, and Peter H. Sikkema. N.D. *Potential yield loss in corn, soybean, dry bean, and sugar beet due to weed interference in North America*. <https://wssa.net/wp-content/uploads/Corn-soybean-drybean-and-sugarbeet.pdf>

<sup>3</sup> Van Deynze, Braeden, Scott M. Swinton, and David A. Hennessy. 2018. *Are Glyphosate-Resistant Weeds a Threat to Conservation Agriculture? Evidence from Tillage Practices in Soybean*. [https://ageconsearch.umn.edu/record/274360/files/Abstracts\\_R18\\_05\\_23\\_20\\_49\\_13\\_94\\_67\\_183\\_37\\_102\\_0.pdf](https://ageconsearch.umn.edu/record/274360/files/Abstracts_R18_05_23_20_49_13_94_67_183_37_102_0.pdf)