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U.S. Environmental Protection Agency
Office of Pesticide Programs
1200 Pennsylvania Ave, NW
Washington, DC 20460-0001

Submitted electronically via Federal eRulemaking Portal

RE: Registration Reviews: Proposed Interim Decisions for Several Neonicotinoid Pesticides; Imidacloprid (EPA-HQ-OPP-2008-0844-1608); Clothianidin (EPA-HQ-OPP-2011-0865-1161); Thiamethoxam (EPA-HQ-OPP-2011-0581-0357); *Final Bee Risk Assessment to Support the Registration Review of Imidacloprid* (EPA-HQ-OPP-2008-0844-1611); *Final Bee Risk Assessment to Support the Registration Review of Clothianidin and Thiamethoxam* (EPA-HQ-OPP-2011-0865-1164; EPA-HQ-OPP-2011-0581-0357-0371)

Dear Sir or Madam:

On behalf of the American Soybean Association (ASA), I am writing to provide comments on Proposed Interim Decisions for Several Neonicotinoid Pesticides (Docket No.'s EPA-HQ-OPP-2008-0844-1608, EPA-HQ-OPP-2011-0865-1161, and EPA-HQ-OPP-2011-0581-0357), as well as the final bee risk assessments to support the registration review of these pesticides (Docket No.'s EPA-HQ-OPP-2008-0844-1611, EPA-HQ-OPP-2011-0865-1164, and EPA-HQ-OPP-2011-0581-0357-0371). ASA represents all 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.

As producers, it is critical that crop protection tools, like the neonicotinoid pesticides undergoing registration review, remain available to continue the safe and affordable production of food. Insects are an enormous source of crop loss domestically and globally. Having a broad array of tools and the guidance to use them safely and sustainably will significantly contribute to our need to feed 9.7 billion people by 2050. Pesticides are only one of the tools we use to do that, but they are important. With the right products available, growers can produce more abundant and affordable products while reducing impacts to the environment.

We rely on the Environmental Protection Agency (EPA) to thoroughly review crop protection tools for their availability, benefits, and impact on human health and the environment. Any efforts to make this process duplicative and more burdensome without any demonstrated benefit to human health or the environment should be rejected.

Uses of Imidacloprid, Clothianidin, and Thiamethoxam

Neonicotinoids have emerged as an effective and popular tool for soybean growers to manage a variety of insect pests. One of the most common uses is as a seed treatment, where the chemistry is applied to

the seed, which protects vulnerable seedlings from soil-borne pests. Without protective seed and soil treatments – like those offered by imidacloprid, clothianidin, and thiamethoxam – seedcorn maggots, wireworms, and other pests can infest germinating seeds. The resulting seed damage can prevent germination, or stunt plant growth or stands, resulting in poorer yields. Moreover, conservation practices such as use of cover crops or reduced tillage, which are demonstrated to improve soil health, reduce soil erosion and greenhouse gas emissions, and increase organic matter in soil, often create an environment ripe for soil-borne pests.¹ These important conservation practices are best complemented by the availability of seed and soil treatments – like those provided by imidacloprid, clothianidin, and thiamethoxam – to encourage their adoption by producers and improve the sustainability of agriculture.

Another benefit of seed treatments, better enabled by the availability of these neonicotinoid chemistries, is their ability to significantly reduce the volume of active ingredient used and area of application. Subsequently, this helps with minimizing other risks, such as accidental exposure or spray drift. Due to reduced soil surface area of application – the total seed surface area versus potentially an entire field with a surface application – it is estimated that seed treatments can reduce the area of application by up to 99 percent.²

It is also important to note that non-neonicotinoid soil treatments registered for use in soybeans are significantly limited in availability. If these neonicotinoid tools were to become significantly restricted or unavailable, it would leave many growers particularly vulnerable to soil-borne pests.

Finally, foliar applications of imidacloprid, clothianidin, and thiamethoxam are also an important tool for pest management. These applications are particularly valuable for controlling early season, above-ground sucking and chewing pests, such as soybean aphids, stink bugs, and three-cornered alfalfa hoppers.

Resistance Management

Neonicotinoids also serve a vital role in the integrated pest management (IPM) programs for many soybean producers. While other chemistries may exist and are registered to address some of the pests managed by imidacloprid, clothianidin, and thiamethoxam, the availability of these tools allow producers to rotate between chemistries to manage insect resistance. For example, some populations of soybean aphids have become resistant to older chemistries, making the availability of neonicotinoids a valuable tool for continued management.³ If these tools were to become significantly restricted or unavailable, IPM plans would be significantly undermined. Growers would likely need to resort to older, less effective products to control pests. A 2014 study found that if unavailable, the 4.0 million pounds of neonicotinoid products used by U.S. producers annually would be replaced with 19.1 million pounds of older, non-neonicotinoid product⁴ – a more than 475 percent increase in volume. This adjustment would also likely be accompanied by greater emergence of pest resistance, increasing pressures and reducing yields.

¹ Purdue University. n.d. “Seedcorn Maggot” Accessed April 27, 2020.

<https://extension.entm.purdue.edu/fieldcropsipm/insects/soybean-seedcorn-maggot.php>

² Crop Life Foundation. November 2013. *The Role of Seed Treatment in Modern U.S. Crop Production: A Review of Benefits*. Washington, D.C. 32.

³ University of Minnesota Extension. 2019. “Insecticide options for resistant soybean aphid.” Last reviewed in 2019. <https://extension.umn.edu/soybean-pest-management/insecticide-options-resistant-soybean-aphid>

⁴ Mitchell, Paul D. AgInfomatics. 2014. *The Value of Neonicotinoids in North American Agriculture: Estimated Impact of Neonicotinoid Insecticides on Pest Management Practices and Costs for U.S. Corn, Soybean, Wheat, Cotton and Sorghum Farmers*. 5.

Pollinators

Soybean producers strive to be excellent stewards of our natural resources and the environment, and farm in a way that minimizes the impact on wildlife. ASA expects growers to carefully follow all label directions given for the safe and responsible use of crop protection tools. However, it is one thing to expect these actions, and it is another to proactively advocate for their adherence. ASA is proud to participate in the “BeSure!” media campaign with other agricultural stakeholders, aimed at increasing awareness and providing resources to farmers and applicators on how to best protect pollinators and avoid unintended impacts of neonicotinoids during application.⁵

While it is critical that label directions for these tools provide meaningful protections for pollinators, it is also essential that directions are thoughtful and do not inadvertently prohibit the use of the product. Under the existing labels for imidacloprid, clothianidin, and thiamethoxam, growers and applicators are directed:

Do not apply this product until all flowering is complete and all petals have fallen unless one of the following conditions are met:

- *The application is made to the target site after sunset*
- *The application is made to the target site when temperatures are below 55°F*
- *The application is made in accordance with a government-initiated public health response*
- *The application is made in accordance with an active state-administered apiary registry program where beekeepers are notified no less than 48-hours prior to the time of the planned application so that the bees can be removed, covered or otherwise protected prior to spraying*
- *The application is made due to an imminent threat of significant crop loss, and a documented determination consistent with an IPM plan or predetermined economic threshold is met. Every effort should be made to notify beekeepers no less than 48-hours prior to the time of the planned application so that the bees can be removed, covered or otherwise protected prior to spraying*

This foliar application direction offers clear instructions for protecting pollinators during flowering, while simultaneously permitting applications under conditions that are low-risk or where dire circumstances require urgent action. However, in Appendices B for the proposed interim decisions for imidacloprid, clothianidin, and thiamethoxam, EPA proposed label changes for all outdoor foliar spray uses for crops not under contract pollinator services. These proposed revisions eliminate any conditions for application during flowering except for a public health emergency declared by state or federal authorities. We are concerned these changes are likely to negatively impact the use of these products and the pollinators the label directions were intended to protect.

Soybeans are photoperiodic plants and typically begin flowering shortly after the summer solstice with a decrease in daylight hours. However, early planted soybeans can flower throughout May, and can bloom multiple times through the end of August anytime the plant grows a new node. This indeterminate flowering can make predicting application timeframes very difficult. Consequently, under EPA’s proposed revisions, which effectively eliminate low-risk conditions for foliar applications during

⁵ American Soybean Association. “BeSure! This Growing Season”. April 16, 2020.
<https://soygrowers.com/news-releases/besure-this-growing-season/>

flowering, many soybean growers may be precluded from using neonicotinoid products for foliar applications.

Considering that the final bee risk assessment supporting the registration reviews for imidacloprid concluded that, “for imidacloprid applications to the legume group, foliar applications show low risk based on refined tier I data for soybeans”⁶; and the final risk assessment for clothianidin and thiamethoxam similarly assessed that, “for both chemicals, the lines of evidence suggest that the risk to honey bee colonies is low for [foliar] use,”⁷ ASA believes this proposed revision is unnecessary and will only limit access to these tools without offering additional, meaningful protections for pollinators. ASA urges EPA revert from these proposed revisions for all outdoor foliar spray uses for crops not under contract pollinator services to its existing label directions.

Impacts to Production

It is important to note that the needs of every grower and growing region are different. Pest pressures, crop rotation strategies, soil type and other environmental conditions, economic considerations, and a variety of other determinants factor into a producer’s decision to use neonicotinoids or any other crop protection tool. U.S. growers need access to a broad range of tools – as well as the labels and guidance for their application to best protect human health, wildlife, and the environment – to continue to improve sustainability, productivity, and competitiveness. ASA believes that neonicotinoid treatments, including imidacloprid, clothianidin, and thiamethoxam, continue to be important, valuable tools for U.S. soybean producers. A 2014 study found that if neonicotinoid chemistries were to become significantly restricted or unavailable, it would result in an annual net increase of \$848 million for U.S. growers, more than \$100 million of which would fall on soybean farmers.⁸ ASA appreciates and encourages EPA to continue its timely and science-based registration reviews of these tools to maintain their availability while improving guidance for their safe and responsible use.

On behalf of America’s soybean farmers, thank you for the opportunity to comment in support of the continued registration for imidacloprid, clothianidin, and thiamethoxam.

Sincerely yours,



Bill Gordon
President

⁶ U.S. Environmental Protection Agency. *Final Bee Risk Assessment to Support the Registration Review of Imidacloprid*. by Keith G. Sappington, Meghann Niesen, Hannah Yingling, Mohammed A. Ruhaman. DP 44366. Washington, D.C.: 2020. <https://www.regulations.gov/document?D=EPA-HQ-OPP-2008-0844-1611> (accessed April 27, 2020).

⁷ U.S. Environmental Protection Agency. *Final Bee Risk Assessment to Support the Registration Review of Clothianidin and Thiamethoxam*. by Michael Wagman, Chuck Peck, Ryan Mroz, Christopher M. Koper, Kristina Garber. DP 455645. Washington, D.C.: 2020. <https://www.regulations.gov/document?D=EPA-HQ-OPP-2011-0865-1164> (accessed April 27, 2020).

⁸ Mitchell 2014, 9.