



October 25, 2021

Mr. Matt Khan
U.S. Environmental Protection Agency
Pesticide Re-Evaluation Division (7508P)
2777 South Crystal Drive, One Potomac Yard Room S-4900
Document Processing Desk
Arlington VA 22202-4501

Re: EPA Draft Biological Evaluations for Clothianidin, Imidacloprid and Thiamethoxam (EPA-HQOPP-2021-0575).

Dear Mr. Khan,

The American Seed Trade Association (ASTA) appreciates the opportunity to provide comments in response to the Environmental Protection Agency (EPA)'s biological evaluations on registration for clothianidin, imidacloprid, and thiamethoxam.

ASTA's mission is to enhance the development and movement of quality seed worldwide. ASTA's diverse membership consists of nearly 700 companies involved in seed production, distribution, plant breeding, and related industries in North America. ASTA represents all varieties of seed, including grasses, forages, flowers, vegetables, row crops, and cereals. While the makeup of our membership is very diverse, ASTA stands united on the premise that a removal of neonicotinoids could be devastating to many of our growers' operations, and lend way to negative environmental effects and unforeseen impacts on food security, conservation initiatives, crop yields, and more to be outlined below.

Neonicotinoids and neonicotinoid seed treatments, including clothianidin, imidacloprid, and thiamethoxam, are an integral part of the integrated pest management systems used by farmers and are a favored method to protect seeds and seedlings from early-season pests. ASTA feels that it is important to reiterate the benefits of seed treatment to modern agriculture to reinforce risk benefit decisions made by EPA. The benefits afforded to growers through use of neonicotinoids prove to be both economic and environmental. Generally speaking, seed treatments allow for the precise application of pesticides to seed, reducing non-target exposure and environmental run off. Neonicotinoid seed treatments specifically have been proven to increase yields and improve crop quality. Economically, the ability to better manage risks associated with soil-borne pests is crucial to supporting farm profitability. They provide a unique mode of action, necessary to manage pests resistance to other insecticides. Neonicotinoids selectively control insect pests, while ensuring beneficial insects remain available to keep other potential insect pests in check.

Seed treatments result in greater plant emergence, a more uniform stand establishment, and allows earlier planting, which in turn can produce higher yields. Early season pest management also results in early disease prevention and disease incidence reduction via suppression or control of insect vectors. In

key crops, seed treatment with neonicotinoids provides control of critical insects and disease complexities. For example:

- In corn, seed treatment controls wireworms, black cutworms, white grubs and other early-season pests that attack corn seeds and seedlings at a point when they're most vulnerable.
- Likewise, in soybean crops, neonicotinoid treatment offers a solution for seedcorn maggot which can severely impact soy production.
- Promotes the use of minimum tillage.
- Neonicotinoid use in potato seed production for aphid control has led to greatly improved control of potato leafroll virus.
- Seed treatment of sugarbeet is a key tool for control of Beet Curly Top Virus as it effectively controls the leaf hopper vectors in emerging sugarbeets.
- Seed treatment for vegetable crops remains a highly effective tool for insect pest management to ensure the establishment of the crop

Without question, the removal of neonicotinoids would threaten the success of valued cover crop programs. Many farmers have adopted important conservation practices like no-till and cover crops in order to help sequester carbon, minimize soil erosion, and prevent nutrient losses to watersheds. Subsequently, these practices often lead to an increase in a field's soil organic matter. The enhanced soil organic matter also serves as a prime habitat for pests that have, for years, been controlled with the use of neonicotinoids. A loss of neonicotinoids may result in utilizing croplands formerly enrolled in conservation programs into production to compensate for lost yields. Revoking the registration of neonicotinoids like clothianidin, imidacloprid, and thiamethoxam would pose a great danger to conservation programs like the Conservation Reserve Program, as farmers could be faced with damaging consequences as a result of their participation in the program.

For years, neonicotinoids have been widely adopted by growers because they protect crops such as corn, soy, wheat, cotton, sugarbeets and vegetables against destructive pests and have a more favorable human and environmental safety profile than the older products they replaced such as pyrethroids and organophosphates. Without neonicotinoids, farmers would be forced to rely on more spray applications of less targeted, broad-spectrum pesticides. Alternatives to neonicotinoids, which could include more foliar applications of organophosphates, are less successful at differentiating between beneficial insects and selectively targeting harmful pests, yield way to a lower plant emergence, and have a greater negative impact on the environment due to the need for increased spraying and re-planting. Seed treatments like neonicotinoids apply a very small amount of chemistry to seeds to protect plants in their most vulnerable stages. Seed treatments have been found to reduce the amount of chemistry used by up to 99%, which is buried under the ground on the seed where there is very minimal risk to wildlife. Banning neonicotinoids would force farmers to use other chemistries to protect their crops.

Further, the seed industry takes very seriously the impacts that practices have on the environment, and put forth great effort in promoting stewardship practices and making advancements to continue to protect pollinators in wildlife by:

- Enhancing seed coating polymers and application processes to keep active ingredients on the seed and reduce dust-off.
- Developing new floor agents for use with planting equipment to further minimize the amount of dust-off during planting.

- Implementing an International Organization for Standardization (ISO) planting equipment standard to better control dust emissions.

It's crucial that we are cognizant of the implications of removing such a valued asset to farmers such as this.

In addition to negative impacts to the environment, removing the registration for neonicotinoids like clothianidin, imidacloprid, and thiamethoxam would have great unintended consequences on our national food supply. History shows us the negative impacts of a decision such as this if we look to the French government's ban on neonicotinoids in 2018. USDA reported that French sugarbeet growers saw nearly \$230 million in losses in just one year. The French government reversed their decision and began, again, to permit some uses after seeing the catastrophic implications of their ban. US producers could see very similar losses by losing access to these critical tools.

An economic analysis by [AgInformatics](#)¹, of more than 1,500 field studies conducted over the span of 20 years found that neonicotinoid insecticides provided average yield increase ranging from 3.6 percent to 71.3 percent in eight major crops across North America. This research found the average yield benefit of using neonicotinoids far exceeds the cost of treatment and delivers a substantial economic return on investment to the farmer. By controlling against early season, below-ground and above-ground pests, neonicotinoids reduce the need for additional rescue treatments or replanting of a failed crop. This protects both the land and environment, and the farmer.

The same report highlighted the price-tag associated with shifting to alternatives of neonicotinoids, and found that it ranged anywhere from approximately \$7.5 million for spring wheat up to almost \$677 million for corn growers. It concluded that about 13 percent of neonicotinoid acres are assumed to switch to using higher initial seeding densities or replanting to help compensate for stand loss due to soil-dwelling pests. Without registrations for neonicotinoids like clothianidin, imidacloprid, and thiamethoxam, alternatives likely to be utilized by farmers could result in negative impacts, both economically and environmentally.

ASTA and other stakeholder groups have developed a set of stewardship recommendations to assist those involved in the process of treating, handling, transporting, or planting treated seeds. Since 2014, we have invested in comprehensive training, education, and outreach programs to disseminate this information which has included a vast array of platforms in which information and education is showcased. ASTA intends to continue to work through the Guide to Seed Treatment Stewardship program and in collaboration with the registrants of the Neonicotinoid Stewardship Program. It is essential that those who treat, handle, transport, and plant treated seeds manage them properly and in accordance with label instructions to minimize the risk of pesticide exposure to humans and the environment.

Previous risk findings have shown that seed treatment uses of clothianidin, thiamethoxam, and imidacloprid for most crops were found to have low on-and-off field exposure risk. While millions of acres every year are planted with neonicotinoid seed treatments, the amount of pesticide on each seed is minimal. In addition, seed companies continue to innovate in the seed treatment arena to further

1. The Value of Neonicotinoids in North American Agriculture. (2021). Retrieved 25 October 2021, from <https://growingmatters.org/wp-content/uploads/2017/04/report-aginformatics-ag-executive-summary-2015.pdf>

reduce dust-off during planting. This includes improving seed treatment application processes and oversight training, developing and deploying innovative polymers and seed coatings to enhance the adhesion of active ingredients to the seed and the introduction and marketing of new fluency agents that have been proven to reduce dust off at planting.

As outlined above, there will be vast consequences without the ability for farmers to utilize neonicotinoids, including clothianidin, imidacloprid, and thiamethoxam. They are cost-effective, offer selective pest control, preserve beneficial insects for Integrated Pest Management (IPM) programs, decrease the probability of pest resistance, protect human health, and improve food quality. Without the use of these products, we would see an increase in use of other, more harmful pesticides, impacts to food production and conservation programs. Insecticidal seed treatments are the most practical and economical method to manage soil-dwelling pests. ASTA is committed to continuing education efforts related to treated seed and welcomes the opportunity to further partner with EPA to reach broader audiences.

Sincerely,

A handwritten signature in black ink that reads "A. W. LaVigne". The signature is written in a cursive, flowing style.

Andrew W. LaVigne
President and CEO