



May 4, 2020

Office of Pesticide Programs Docket  
Environmental Protection Agency Docket Center  
1200 Pennsylvania Ave. NW  
Washington, DC 20460-0001  
Via: Regulations.gov

*Re: Proposed Interim Registration Review Decision for Imidacloprid EPA-HQ-OPP-2008-0844; Clothianidin EPA-HQ-OPP-2011-0865; and Thiamethoxam EPA-HQ-OPP-2011-0581*

To whom it may concern:

The American Seed Trade Association (ASTA) appreciates the opportunity to provide comments regarding the Environmental Protection Agency (EPA) Proposed Interim Registration Review Decision (PID) for imidacloprid, clothianidin, and thiamethoxam.

ASTA's mission is to enhance the development and movement of quality seed worldwide. ASTA's diverse membership consists of over 700 companies involved in seed production, distribution, plant breeding and related industries in North America. ASTA represents all varieties of seeds, including grasses, forages, flowers, vegetables, row crops and cereals.

Neonicotinoids and neonicotinoid seed treatments 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. We applaud EPA for strongly considering the benefits of clothianidin, thiamethoxam and imidacloprid when developing the PID and we are gratified that EPA recognized that the risks posed by seed treatments are low.

ASTA feels that it is important to reiterate the benefits of seed treatment to modern agriculture to reinforce the risk-benefit decisions made by EPA. These benefits are both environmental and economic. Seed treatments allow for the precise application of pesticides to seed, reducing non-target exposure and environmental run off. Neonicotinoid seed treatments specifically, have increased yields, and improved crop quality. These economic benefits are extremely vital to supporting farm profitability as is the ability to better manage risks associated with soil borne pests.

Generally, seed treatments result in more even plant emergence and more uniform stand establishment and can allow earlier planting which is associated with higher yields. Early season pest management also results in early disease prevention and disease incidence reduction via suppression or control of insect vectors. In addition, seed treatments allow for environmentally beneficial no-till and other conservation tillage practices by assisting in management of damaging pests that can survive and thrive in cooler, moister soils and crop residues common in early planting, no-tillage systems.

- In key crops, seed treatment with neonicotinoids provides control of critical insects and disease complexes. 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 period when they are most vulnerable.
  - Likewise, in soybean crops, neonicotinoid treatment offers a solution for seedcorn maggot which can severely impact soy production.
  - 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.

### **EPA Proposals for Commercial Corn Seed Treatment**

The PID proposed several mitigations for the treatment of corn seed. For clothianidin, the PID proposed requiring gloves and respirators for occupational handler and occupational post-application risk in commercial seed treatment facilities. For thiamethoxam, EPA is proposing that all thiamethoxam products registered for corn seed treatment uses must be applied by closed system seed treatment application processes when applied in commercial seed treatment facilities.

ASTA believes that EPA overestimated the occupational risk for workers in seed treatment facilities. Field corn is far and away the largest usage of corn seed treatment. According to USDA NASS data, field corn planted acres were 89.7 million in 2019<sup>1</sup>. Sweet corn planted acres were 496,400<sup>2</sup> and popcorn harvested acres were 221,264 in 2017<sup>3</sup>. While sweet corn and popcorn seeds are smaller than field corn seed, it is inappropriate to use the popcorn and sweet corn seeds per pound in calculating potential risk as they only account for 0.7% (for both popcorn and sweetcorn) of treated corn seed.

EPA estimates that 1,361-2,000 seeds per pound are used for field corn which reflects industry standards<sup>4</sup>. Using a calculation of 2,000 seeds per pound and the maximum EPA-approved application rate of 1.25 mg ai/seed or 0.0056 lb ai/lb of seed for field corn is less than half of the rate used in the assessment. Thus, it is not appropriate to use 4,760, the highest range of popcorn per pound, because of the very large difference between the number of pounds of seed that are actually treated and planted. Furthermore, the maximum application rate for clothianidin for sweetcorn is only 0.5 mg.ai/seed which is only 40% of the rate used for field corn and popcorn.

The vast majority of field corn seed treatment facilities use closed loading systems. Since the EPA Ag Handlers Database was last updated, there has been significant investment by industry in application equipment in order to increase precision application and reduce worker exposure. EPA's Worker Exposure Assessment did not take this into account. While worker safety is paramount to our member

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<sup>1</sup> <https://quickstats.nass.usda.gov/results/CFB6DD70-EF99-31AF-9524-64A9E51018C8>

<sup>2</sup> <https://quickstats.nass.usda.gov/results/79D0368E-1671-326E-8CD8-D3A250737198>

<sup>3</sup> <https://quickstats.nass.usda.gov/results/46FDFEDE-DEF9-3CD1-902C-EA06D5250E53>

<sup>4</sup> EPA BEAD Memo, Acres Planted per Day and Seeding Rates of Crops Grown in the United States (2011)

companies, it is important that the PPE requirements that are put in place are based on actual risks in order to maximize employee compliance and minimize unnecessary expense.

### **Thiamethoxam specific comments for commercial corn seed treatment**

It is unnecessary to require a closed loading system for thiamethoxam. Syngenta proactively included a restriction to limit the amount a seed treater worker could handle in a day on the Cruiser (EPA Reg. No. 100-941) end-use product label years ago to address this specific issue. The statement is, “Cruiser may be applied by closed or open system seed treatment application processes. **DO NOT** apply more than 215 gallons of Cruiser per 8-hour day for seed treatments utilizing a closed system. **DO NOT** apply more than 38 gallons of Cruiser per 8-hour day for seed treatments utilizing an open system.” With this restriction on Cruiser already approved by EPA, the proposed closed system mitigation is unwarranted. In fact, EPA acknowledged this fact in the PID on page 23 by stating, “these volumetric restrictions lead to no risks of concern for all the seed crops listed on the label for all seed treatment activities”. As for the additional thiamethoxam-containing seed treatment labels approved for use on corn seed, they already are restricted to closed system applications, or have been recently cancelled.

ASTA recommends that EPA not require a closed loading system for thiamethoxam due to the volumetric restrictions that are already in place for Cruiser (EPA Reg. No. 100-941). EPA should consider similar volumetric restrictions on other thiamethoxam products when used in open corn seed treatment systems.

### **Clothianidin specific comments for commercial corn seed treatment**

PPE requirements for field corn should be determined separately from sweet corn and popcorn. No respirator should be required for field corn seed treatment due to its larger seed size. No respirator should be required for sweetcorn based on the lower allowed application rate. When treating popcorn in facilities that do not have closed loading systems, respirators should be used.

EPA should allow for an engineering control statement to be added to the clothianidin label stating that companies may use a closed loading system in lieu of respirators. In addition, engineering controls, such as air aspiration (or air handling), at the bagging and packaging equipment may be used as an alternative to respirators to address post application risk.

### **Advisory Statements for Clothianidin, Thiamethoxam and Imidacloprid Seed Treatment Uses**

EPA is proposing that all pesticide products that contain either clothianidin and/or thiamethoxam and are registered for seed treatment uses must include the following advisory statements:

- “Cover or collect treated seeds spilled during loading and planting in areas (such as in row ends).”
- “Dispose of all excess treated seed by burying seed away from bodies of water.”
- “Do not contaminate bodies of water when disposing of planting equipment wash water

ASTA supports the inclusion of this additional advisory language to mitigate potential risks to birds and mammals and in our view no additional language is needed. This language complements the existing stewardship recommendations that ASTA and our members have shared with growers through the Guide to Seed Treatment Stewardship education and outreach program. These resources are available

at <https://seed-treatment-guide.com/> including a guidance document specifically addressing cleaning up seed spills.

### **Foliar and Soil Application - Crop stage restrictions**

Some of the proposed crop stage growth restrictions for foliar and soil applications do raise concerns for the ability of growers to successfully protect crops at early establishment. Of specific concern would be crop stage restrictions to fruiting vegetable and cucurbit transplants.

It is understood that clothianidin, imidacloprid and thiamethoxam have different proposed mitigations, but it is concerning that the proposed mitigations based on the broad crop stage restriction language would reduce the ability of seed producers and our grower customers to have the flexibility in choosing the appropriate tool.

The proposed stage restrictions are narrowly focused and would negatively impact vegetable and cucurbit transplants which may have flower initials or 1<sup>st</sup> true leaves already produced (respectively) prior to planting in the field. Reliance on these criteria may result in the broad elimination of post-transplant clothianidin, imidacloprid and thiamethoxam foliar sprays for cucurbits, and post-transplant imidacloprid and thiamethoxam foliar sprays that may be needed. This would have high potential negative impact if other alternatives such as pyrethroids or organophosphates were ineffective or unavailable.

ASTA recommends that EPA carefully consider a more practical mitigation such as “do not apply after 5 days after planting or transplanting” versus the presence of initial flower buds or 1<sup>st</sup> true leaves.

In addition, seed production requires maintaining clean plants over a long time horizon. We propose that imidacloprid foliar and soil applications be allowed after five days after planting or transplanting when flowering vegetables and cucurbit plants are enclosed in net houses or cages.

### **Foliar and Soil Application - Proposed reductions in maximum annual application rates**

In the PID, EPA uses a calendar year approach instead of the current regulations which use crop season in calculating application rates. This may adversely impact vegetable seed production where multiple crops are grown per year on the same site. Areas like California and Florida that may have three crop seasons annually will be negatively impacted. In addition, individual crops may be planted on less than an acre on these sites making the calculations difficult.

In the PID for imidacloprid, thiamethoxam and clothianidin, EPA points to the availability of products such as pyrethroids and organophosphates as alternatives to neonicotinoids. However, these chemical classes are also under registration review and should not be considered confidently as viable alternatives.

### **EPA Proposed Elimination of On-Farm Seed Treatment**

In the PID, EPA proposed to eliminate on-farm treatment of canola, millet and wheat with imidacloprid. ASTA supports the comments of Albaugh LLC and their proposed refinement to EPA's Exposure Assessment for on-farm seed treatment application of imidacloprid for canola, millet and wheat. We ask EPA to consider the recommended refinements to the exposure assessment utilized as the basis for

proposing to prohibit on-farm seed treatment for canola, millet, and wheat in the recently released PID for imidacloprid. On-farm treatment is an important application method for treating seed and is one which needs to be maintained. This on-farm method of application should be modeled using scientifically sound assumptions and the most current exposure data that is available. Albaugh LLC proposed in MRID 51087902, specific and scientifically valid refinements for these particular on-farm seed treatment uses.

ASTA understands EPA is currently reviewing on-farm seed treatment using liquid formulations submitted from Agricultural Handler Exposure Task Force (AHETF). EPA has also received (MRID 47054701) and reviewed (Feb. 2011, DP# 386913) on-farm seed treatment exposure study data using an imidacloprid liquid formulation. ASTA advises the Agency to use these studies to assess liquid on-farm seed treatment exposure and risk, as they represent the best available data and are more appropriate and reflective of current on-farm seed treatment work practices. Powder formulations are no longer used for on-farm treatment for canola, millet and wheat.

When the more appropriate surrogate exposure data and the updated dermal absorption value are used in the assessment, exposure risk estimates for on-farm seed treatment using liquid formulations of imidacloprid are not of concern (i.e., MOEs  $\geq$  100, the level of concern). The proposed prohibition of on-farm usage of liquid imidacloprid formulations and additional PPE are not warranted.

#### **Proposed Labeling Changes Detailed in Appendices B for Imidacloprid, Clothianidin & Thiamethoxam**

The language proposed in Appendix B of the PIDs under “crops not under contract pollination services” appears to have been posted in error as it conflicts with other sections of the PIDs, including not being listed in Appendix A which summarized the proposed mitigations.

This proposed language:

*“For foliar spray application to crops not under contract pollinator services:  
Do not apply this product while bees are foraging. Do not apply this product until flowering is complete and all petals have fallen off unless the application is made in response to a public health emergency declared by appropriate State or Federal Authorities.”*

conflicts with other pollinator protection language as outlined in the PIDs, as well as benefits documents included in the EPA public docket. Language in these documents indicated that bloom restrictions are not needed for a number of crops. We strongly urge EPA to remove the proposed second paragraph (noted above) in Appendix B of the PIDs for clothianidin, dinotefuran, imidacloprid & thiamethoxam pertaining to crops not under contract pollinator services. EPA should revert to existing label language for “crops not grown under contract for pollination services”, specifically not changing the language providing the five exemptions for application during bloom.

#### **Stewardship**

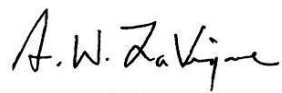
As noted in the PIDs, voluntary stewardship programs are another mechanism to further reduce pesticide exposure. ASTA and other stakeholder groups have developed a set of stewardship recommendations to assist those involved in the process of treating, handling, transporting, or planting of treated seeds. Since 2014, we have invested in a comprehensive training, education and outreach program to disseminate this information which has included traditional and social media and

presentations and exhibitions at targeted meetings and conferences. ASTA intends to continue this work through the Guide to Seed Treatment Stewardship program and in collaboration with the registrants on the *Neonicotinoid Stewardship Program*.

## **Conclusion**

ASTA is appreciative of the many years of painstaking information gathering and analysis that EPA undertook in the development of the comprehensive PIDs for imidacloprid, clothianidin and thiamethoxam. We look forward to the prompt completion of the reregistration process so that farmers and seed producers can continue to have the access they need to these beneficial tools.

Sincerely,

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

Andrew W. LaVigne  
President & CEO