May 2, 2014

Gregg Regimbal
Pesticide and Fertilizer Management Division
Minnesota Department of Agriculture
625 Robert Street North
St. Paul, MN 55155-2538

Dear Mr. Regimbal,

Thank you for the opportunity to submit comments and participate in the Minnesota Department of Agriculture’s review of neonicotinoids.

These comments are submitted on behalf of Pesticide Action Network and our 2760 members in the state of Minnesota. Pesticide Action Network (PAN) works to replace the use of hazardous pesticides with ecologically sound and socially just alternatives.

Pesticide Action Network applauds the Minnesota Department of Agriculture for proactively addressing the issues facing pollinators, and for examining neonicotinoid insecticides as a key catalyst in declining bee populations. Historically, Minnesota has ranked in the top five honey-producing states in the nation. Common-sense action to protect bees from neonicotinoids will allow our state to remain an important honey producer and summer home for our nation’s honey bees.

PAN recommends additions to the following sections of the scoping document for MDA’s review of neonicotinoids:

**Neonicotinoid use and sales:**

*Tracking seed treatment sales data:* As MDA’s scoping document notes, because federal law (40 CFR section 152.25) currently exempts seed treatments as treated “articles,” thorough information on this usage of neonicotinoids is currently unavailable to legislators, regulators, and the public. Because of this gap in data and regulation, we urge MDA to develop a mechanism for tracking neonicotinoid seed treatments in Minnesota and a plan for its implementation.

**Benefits of neonicotinoid use:**

*Inconsistent yield and profitability impacts of neonicotinoids:* In assessing the benefits of neonicotinoid use in Minnesota agriculture, MDA should take into consideration the growing body of scientific research indicating that neonicotinoid seed treatments on key Minnesota crops like corn\(^i\), soy\(^ii\), canola\(^iii\), wheat\(^iv\), and dry beans\(^v\) do not consistently increase yields or profitability.

A 2013 study of clothianidin seed treatments in the Midwest found that “the additional cost of an insecticide may not have offered farmers any economic benefits.”\(^vi\) A 2006 study of thiamethoxam seed treatments in Minnesota found that “at-planting applications of thiamethoxam for soybean aphid control provides little consistent benefit to the grower.”\(^vii\) These studies, and other independent scientific research, must be included in MDA’s assessment of the role of neonicotinoids in Minnesota’s agricultural production.

**Risks of neonicotinoid use:**

*Shift away from IPM:* MDA’s scoping document mentions that “widespread adoption of systemic neonicotinoids for prophylactic insect control may contribute to a paradigm that moves away from...
integrated pest management (IPM).” This potential paradigm shift in our state’s agricultural practices deserves more significant attention from MDA than is signaled in the scoping document. MDA’s review should assess how prophylactic neonicotinoid use has already altered agricultural practices, and the economic and environmental impacts of continued departures from IPM practices.

Costs to farmers: For farmers, the cost of using prophylactic seed treatments is frequently not offset by benefits in terms of yield increases.iii Neonicotinoid seed treatments introduce insecticides into the agricultural system regardless of insect pressures. In years when pest pressures do not meet the economic threshold for pesticide treatments, this prophylactic approach costs farmers money, cultivates insect resistance, and introduces persistent insecticides into soil and water without any added benefit for Minnesota farmers.

Impacts on natural pest enemies: Neonicotinoids affect not only beneficial pollinators, but also natural enemies of insect pests. According to a 2012 paper about the impacts of imidacloprid and thiamethoxam seed treatments for soybeans, “prescriptive use of some of these insecticides may harm long-term IPM of soybean pests by reducing the abundance of their key natural enemies,”ix while failing to contribute to increased yields or profitability for farmers.

Synergistic effects of multiple pesticides on pollinators: Emerging research indicates that the harmful effects of insecticides on pollinators can be exacerbated by simultaneous exposure to other agricultural chemicals, including fungicides and “inert” ingredients in pesticide formulations.x MDA’s review should consider common pesticide combinations used in Minnesota agricultural regions—applied together to the same crop, or to different crops within a honey bee’s foraging radius—and include research on the synergistic effects of these pesticides on pollinators.

Neonicotinoid applications and movement in the environment:

Nursery plants as routes of exposure: Last year, a pilot study revealed that plants sold at home garden stores are frequently pretreated with neonicotinoid insecticides, with no warning to consumers.xi Minnesotans have expressed high levels of concern over this issue. Due to public concern, the Minnesota legislature is currently considering legislation barring nurseries from labeling plants as “bee-friendly” if they have been treated with neonicotinoids. MDA’s review should include attention to this route of exposure.

Beyond these additions, PAN also recommends that MDA outline options for reducing and restricting the use of neonicotinoid insecticides—and, hence, the risk of pollinator exposure—in the state of Minnesota. Minnesota policy-makers and the public would greatly benefit from MDA’s perspective on various strategies for reducing the quantity of neonicotinoids introduced into our soil and water. The scope of MDA’s review should include information on the opportunities and obstacles that would arise with various policy options towards this end. Policy recommendations for consideration could include, but are not limited to:

- Increasing availability of seed that is not pretreated with neonicotinoids
- Classifying neonicotinoids as restricted use pesticides
- Requiring labeling for all plants, starts, and seedlings pretreated with neonicotinoids
- Assessing an additional fee for registration of neonicotinoids to fund research into less-toxic alternatives to these products
- Tracking usage of neonicotinoid seed treatments, both by amount used and by the number of acres planted with treated seed
- Creating a Minnesota supplemental label with additional use restrictions. A Minnesota supplemental label should replace advisory language with enforcement statements that protect beekeepers from exposure or drift onto beehives.
- Developing environmental monitoring protocols to track the occurrence and distribution of neonicotinoids in Minnesota’s waters and soils.
We look forward to further discussion about these comments and MDA’s efforts to protect bees from neonicotinoids.

Sincerely,

Lex Horan
Organizer

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