



November 27, 2019

Hon. Jeff Yurek, MPP, Elgin-Middlesex-London
Ontario Minister of Environment, Conservation and Parks

Via email: Jeff Yurek (minister.mecp@ontario.ca)

Re: Response by the Ontario Beekeepers' Association to proposed amendments to the Ontario Pesticide Regulation (63/09 General)

Dear Minister Yurek,

On behalf of Ontario beekeepers, we are pleased to submit to you our response to the proposed changes in regulations.

The Government of Ontario is currently proposing amendments to O. Reg. 63/09: General made under the *Pesticides Act* to reduce complexity and modernize pesticide management in Ontario while ensuring protection of human health and the environment.

In 2015, the Government of Ontario passed Class 12 legislation to prevent the overuse of harmful pesticides, the prophylactic use of which was harmful to insect pollinators. Class 12 legislation policy was based on the aspirational goal of reducing usage by 80% (based on 20% of acreage estimated by OMAFRA crop specialists to actually be under pressure by pests targeted by neonicotinoids - NNIs).

Published results of tracking sales in three growing seasons, 2016-2018, indicate slow progress towards the 80% reduction goal: an 18% reduction in acreage of both corn, soy, and winter wheat planted with NNI-treated seeds, a 24% decrease in the amount of treated seeds sold and an 11% reduction or 84,000 kg of NNIs applied as seed treatments in crop year 2017.

Soy and Corn Treated Seed Acreage	Total number of acres planted with imidacloprid	Total number of acres planted with clothianidin	Total number of acres planted with thiamethoxam	Total acres with NNI-treated seed
2016	317,253	713,614	1,976,972	3,007,840
2017	527,493	1,475,230	974,342	2,977,066

2018	347,078	1,295,397	824,780	2,467,255
			% reduction of NNI treated acres	18%

	Total mass (tonnes) of treated seeds sold or transferred that contained imidacloprid	Total mass (tonnes) of treated seeds sold or transferred that contained clothianidin	Total mass (tonnes) of treated seeds sold or transferred that contained thiamethoxam	Total mass (tonnes) of treated seeds sold or transferred
Soy and Corn sold NNI Content				
2016	8,927	6,820	42,209	57,956
2017	15,918	13,471	32,150	61,540
2018	10,300	11,439	22,371	44,110
Reduction in tonnes of NNIs based on 2016 base year.				24%

Notably, current reports from pesticide manufacturers and seed distributors have indicated that NNI usage is under pressure and is in steep decline. NNIs are being replaced by other seed treatments, which are Class 2 Group 28 pesticides, and thus fall outside of the restrictions for Class 12 treated seed.

Dupont's *Lumivia* (chlorantraniliprole) label states that it is toxic to birds and aquatic insects, but there is no warning about its effects on pollinators except to say to follow Pollinator Protection guidelines from Health Canada. Yet new research has shown that chlorantraniliprole has lethal effects on honey bees¹.

Also concerning is the new seed-treatment for soy beans – *Lumiderm* (cyantraniliprole) – which, according to the label, is toxic to bees and aquatic insects.

The Government of Ontario's new proposed amendments are mostly designed to streamline pesticide regulatory requirements and paperwork, however we note two specific concerns:

1. "The requirements to retain certain sales records would be maintained for NNI-treated seed vendors, including the pesticide name, the quantity sold, and key information related to the purchaser." This should include NNIs and their replacements (e.g., traniliprole). Furthermore, this information should be published to the public every year.
2. "Farmers would continue to be required to have completed a Pest Assessment Report (PAR) or complete the new Pest Risk Assessment Report (PRAR) which includes new options to demonstrate

the risk of pests. This is proposed to now be a one-time requirement. Farmers would also only be required to complete IPM training once.”

This is reasonable, however Pest Risk Assessment Method 3, unlike Methods 1 & 2, is too subjective to have any merit and should be eliminated.

Ontario beekeepers’ high overwinter and spring losses, queen failures, and recent low honey yields continue to be economically unsustainable. In light of this, beekeepers need the Government of Ontario to renew its commitment to protecting insect pollinators and to put in place a revised policy that would protect all insect pollinators and help sustain a beekeeping industry that is so vital to the production of Ontario fruits and vegetables.

It should be noted that the impacts of widespread application of water-soluble seed treatment pesticides (i.e., fungicides and insecticides) are not just limited to bees but are also an environmental hazard to other organisms and have resulted in traces of these chemicals being found in all Ontario waterways. Research has shown that this exposure threatens populations of aquatic invertebrates, such as mayflies, which are food to Ontario fish and birds. This has been noted by PMRA and is the rationale behind their proposed ban on all NNI seed treatments.

The OBA recommends that the Government of Ontario adopt these 12 specific actions for the protection of insect pollinators and sustainability of Ontario’s beekeeping industry:

1. Seed treatments with NNI, and their replacement pesticides, continue to be applied as prophylactic protection or ‘cheap insurance’ without verification of pest pressure. Yet for insect pollinators’ survival, Ontario must return to the focus on using pesticides only where needed (i.e., IPM techniques) and thereby reducing insect pollinator exposure to *all* persistent, toxic seed-treatment pesticides. A new realistic target for reducing the acreage of application of pesticide seed treatments on field crops should be a minimum of 50% in three years.
2. MECP should expand the scope of Class 12 restrictions to include NNIs *as well as* all other seed treatments, which are or may be substituted for NNIs (e.g., Class 2 Group 28 traniliproles). These are sources of exposure leading to the ongoing chronic and acute poisoning of insect pollinators;
3. Enforce the intent of the legislation by continuing to make sales conditional on verification that pest pressure warrants the use of these pesticides;
4. Evaluate progress in achieving the stated policy goals of reducing pesticide exposure by tracking sales of all treated and untreated seeds, including the introduction into the environment of all pesticides used as seed treatments on field crops (i.e., insecticides, herbicides, and fungicides);
5. Publicly report, in a timely manner, the results of sales data collected including acreage, and total tonnage of all pesticides applied to seeds of field crops such as corn, soy, winter wheat, and canola. Due to the persistence of these chemicals in Ontario’s environment, reports should also include total tonnage of chemicals applied on seed treatments over a three-year period;

6. Publish detected level of seed treatment pesticides in Ontario surface and groundwater <https://www.publichealthontario.ca/-/media/documents/case-study-neonicotinoids.pdf?la=en>, since water is a common source of pesticide exposure for honey bees and other pollinators.
7. Require that the cost-per-acre of all seed treatment pesticides (i.e., insecticides and fungicides) be made known to purchasers so that growers can make informed decisions as to the cost-benefit of seed treatments. Immediately support independent field tests measuring the economic cost-benefit of seed treatments;
8. Enforce the existing Class 12 regulations to ensure stated practices and record-keeping requirements are being followed;
9. Maintain other parts of the Legislation regarding grower awareness and IPM education;
10. Provide a system of incentives and backstops for farmers to transition to no-seed- treatment methods by recouping crop losses where it could be shown that eliminating seed treatments resulted in crop losses. This should be a for a limited transition period and outside of the Agricorp insurance policies;
11. Provide incentives for corn and soy growers to permanently convert acreage to hay. Note that, due to the persistence of seed treatment pesticides in the soil, short term crop rotation of NNI treated fields with hay crops (alfalfa and clover) is not recommended.
12. Do not accept all PMRA decisions per the registration of new and reviews of existing pesticides. Ontario soils, crops and insect pressures and the concentration of honey bee colonies in proximity to crops require additional consideration and specific actions that may contradict PMRA findings.

The Ontario Beekeepers' Association believes that these are *reasonable and necessary measures* to protect the population of wild bees and to ensure a sustainable managed bee population. Moreover, adoption of these measures will demonstrate the Ontario Government's commitment to the health of insect pollinators, the protection of its environmental heritage, and the production of grown-in-Ontario fruit and vegetables.

We would be happy to discuss all or any of these recommendations at any time.

Sincerely,



André Flys
President

¹Honey bees' long-lasting locomotor deficits after exposure to diamide chlorantraniliprole are accompanied by brain and muscular calcium channel alterations. <https://www.nature.com/articles/s41598-019-39193-3>