



Comments from the Ontario Beekeepers' Association to the The House of Commons Standing Committee on Agriculture and Agri-Food Hearing on Canada's Pest Management Regulatory Agency (PMRA) proposal to phase out the main uses of imidacloprid

March 7, 2017,

Dear Members of the Standing Committee,

The Ontario Beekeepers' Association has represented Ontario beekeepers since 1881. Ontario is home to more beekeepers than any other province. Ontario is also the source of more than 65% of all the corn and soy grown in Canada. Because five million acres are planted in neonicotinoid treated corn, soy and winter wheat, the colonies managed by Ontario beekeepers (and their counterparts in Quebec) are uniquely exposed to neonicotinoids.

Ontario also grows almost 37% of Canada's fresh fruit and vegetables. Most of these farm products require insect pollinators. Therefore the health of Ontario's bees and all insect pollinators should be of prime importance for anyone concerned about Canada's food security.

The broad application of neonicotinoid pesticides like Imidacloprid on most field crops including: corn, soy, winter wheat and canola has been linked to the decline in bee populations in Ontario in places where bees come into contact with dust from planting, with pollen gathered from target and adjacent crops or from ground water that translocates from the excess pesticide residues in the soil.

Health Canada's decision to phase out Imidacloprid is the right decision given the overwhelming evidence of its harm to our environment and our food security.

While Ontario Beekeepers applaud Health Canada for taking this action to protect our environment and preserve our food security, we still believe we can do better. To this point, we offer these recommendations on the proposed regulations:

- 1. The phase out of Imidacloprid must begin by September of 2017 in time to prevent seed treatments on orders for the 2018 planting season.**

Three more years represents three planting seasons of additional exposure to Imidacloprid. Each season more quantities of this water soluble, persistent and highly

toxic pesticide will be added to pollen and nectar sources, to our soils and to our waterways.

As beekeepers we fear exposure of our bees and wild bees not only to the 2% that is expressed as dust at planting, or the 18% taken up in the target plant but we are also concerned about collateral damage from the 80% that persists in the soil. This residue exposes bees to these powerful neurotoxins in standing water, to translocation via ground water to the pollen and nectar other flowering plants, shrubs and trees and further exposure through migration in ground water and run-off to our streams and rivers.¹

2. Contrary to marketing by the global Agchem industry, pesticides are being oversold.

Neonicotinoids are the most widely sold pesticides in the world today representing a multi-billion dollar market. This powerful pesticide industry will lobby for a delay in enacting this phase out in-order to protect sales of this highly profitable pesticide. Health Canada must not bend to this pressure.

In 2014 the Ontario government enacted legislation aimed at reducing the amount of neonicotinoid seed treatments by 80% by 2017. Ontario's policy was based on overwhelming science as to the harmful effects of neonicotinoids on insect pollinators and the advice of crop specialists who determined that only 20% of acreage was actually threatened by the pests targeted by the pesticides. The overuse of pesticides not only kills bees, but clearly benefits pesticide manufacturers and distributors and not farmers.

According to the U.N. Human Rights Council: Report of the Special Rapporteur on the right to food

“Pesticides, which have been aggressively promoted, are a global human rights concern, and their use can have very detrimental consequences on the enjoyment of the right to food. Without or with minimal use of toxic chemicals, it is possible to produce healthier, nutrient-rich food, with higher yields in the longer term, without polluting and exhausting environmental resources.”²

¹ <http://journals.plos.org/plosone/article?id=10.1371/journal.pone.0029268>

² United Nations General Assembly Human Rights Council Thirty-fourth session 27 February-24 March 2017 Agenda item 3 Promotion and protection of all human rights, civil, political, economic, social and cultural rights, including the right to development.

3. Imidacloprid continues to be a serious hazard to managed bees and all insect pollinators in Ontario

“Pesticides are stressors that have received considerable attention, and among these no single class has received more recent attention than the neonicotinoids. These insecticides are acutely toxic to honey bees, environmentally persistent and mobile in the environment.³”

After hundreds of incidents of acute bee kills were documented in Ontario during the 2012 and 2013 growing seasons, PMRA concluded that the current use of neonicotinoids in agriculture was not sustainable.

Since PMRA arrived at this conclusion in 2014, we have seen no evidence that the threat to Ontario bees from neonicotinoids has abated.

Beekeepers in Ontario continue to observe abnormally high bee mortality indicators including: acute bee deaths, unsustainable winter losses, loss of queens, low queen vitality, poor (spotty) brood patterns and crashing of hives in fall and early winter.

PMRA has indicated that the use of new planting machine deflectors and polymer seed coatings have reduced the spread of dust at planting. They cite lower number of reported incidents as proof that these measures have made the threat to bee health from neonicotinoids acceptable.

This conclusion is flawed and does not reflect the fact that as indicated in the above sections dust is just one expression of neonicotinoid toxicity. And that crop dust research has shown that dust settles on adjacent flowering plants, shrubs and trees rendering them also toxic to bees.

Citing reduced number of incidents as an indicator of bee health, PMRA ignores the fact that it recently changed incident reporting procedures. PMRA policy now eliminates inspection of hives with reported pesticide poisoning and does not take and analyze bees, pollen or comb samples for pesticide residue. There is now little or no incentive for beekeepers to report incidents.

4. Health Canada must review its pollinator risk assessment model before registering any new systemic pesticides.

While Imidacloprid and other neonicotinoids pose a serious threat to insect pollinators, new, approved systemics may be equally destructive. Several new systemic insecticides have been registered by PMRA and are currently being sold in Ontario in anticipation of

³ Non-cultivated plants present a season-long route of pesticide exposure for honey bees
Elizabeth Y. Long & Christian H. Krupke, *Nature Communications* May, 31, 2016

restrictions on the current Class 12 neonics. Currently their use falls outside of the current Class 12 regulatory environment.

PMRA often relies on research from the pesticide manufacturer for proof of acceptable toxicity to pollinators for approval of registrations. But studies showing negative effects from sublethal doses of new systemics puts into question the risk assessment protocols that PMRA is using to approve new systemic pesticides.

As an example, seed dealers report that DuPont's Lumivia seed treatment will likely replace as much as 75% of neonics on Corn in Ontario this planting season.

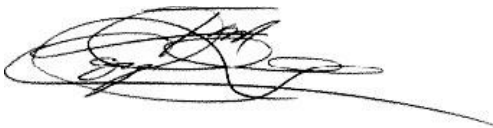
<http://www.dupont.ca/en/products-and-services/crop-protection/corn-soybean-protection/products/lumivia.html> Yet, despite having acquired PMRA certification for use on corn in June or 2016, systemics like Lumivia may pose real risks to insect pollinators. Recent studies have shown, chlorantraniliprole the active ingredient in Lumivia, negatively effects the behaviour of bees. ⁴

5. All pesticides should be used only as part of an Integrated Pest Management program

Not all crops require pesticides. IPM encourages soil conservation and soil improvement and only the targeted use of pesticides. The current practice of the overuse of pesticides is destructive to our environment and benefits only the AgChem industry. Using pesticides in an IPM program and only when there is a demonstrated need is a reasonable policy for limiting their use.

We hope that we have shed some additional light on an important issue that effects insect pollinators, aquatic invertebrates and threatens Canada's food security. The Ontario Beekeepers' Association appreciates Health Canada's attention to this matter and looks forward to its additional reports and recommendations concerning the phase out and immediate re-assessment for pollinator safety of all neonicotinoids and the careful screening of new systemic pesticides.

Sincerely,



Jim Coneybeare
President

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https://www.researchgate.net/profile/Guy_Smagghe/publication/236129347_Dietary_chlorantraniliprole_suppresses_reproduction_in_worker_bumblebees/links/00b49517134cea545a000000.pdf