ONTARIO BEEKEEPERS' ASSOCIATION
Since 1881

March 16, 2018

The Honourable Lawrence MacAulay
Minister of Agriculture and Agri-Food, Government of Canada

The Honourable Ginette Petitpas Taylor
Minister of Health, Government of Canada

Pest Management Regulatory Agency (PMRA), Health Canada

Re: Comments on the registration status – clothianidin and thiamethoxam

Via email: minister@agr.gc.ca; minister@hc-sc.gc.ca; PMRA.publications@hc-sc.gc.ca

Dear Ministers Taylor and MacAulay,

We write on behalf of the health of bees, beekeepers and the beekeeping industry of Ontario and Québec. We object to PMRA's refusal to take action to end the widespread use of neonicotinoid pesticides on field crops.

Beekeepers managing honey bee colonies in Canada's corn, soy and canola growing regions continue to experience unsustainable colony losses, queen failures, record low honey production and unsustainable costs associated with the replacement of colonies and queens.

The association of these losses to the agricultural use of neonicotinoid pesticides applied as seed treatments on corn and soy and other field crops was confirmed by PMRA in 2013.

In 2014, Ontario passed legislation to curtail the widespread use of neonicotinoid seed treatments on corn and soy. On February 26 of this year, Québec announced new restrictions on neonicotinoids and other pesticides considered harmful to honey bees.

The evidence of the harmful effects of neonicotinoids on honey bees and wild bees is overwhelming:

The Task Force on Systemic Pesticides – a team of independent scientists brought together by the International Union for Conservation of Nature – has been assessing peer-reviewed science on neonics for several years. After two rounds of comprehensive reviews, they report:

> *Overall, a compelling body of evidence has accumulated that clearly demonstrates that the wide-scale use of these persistent, water-soluble chemicals is having widespread, chronic impacts upon global biodiversity and is likely to be having major negative effects on ecosystem services such as pollination that are vital to food security and sustainable development.*[1]

In February of this year, the European Food Safety Authority (EFSA) released its report on the three most widely used neonicotinoid pesticides. After reviewing 1500 studies, EFSA concluded:

> *The conclusions on risk varied according to factors such as the bee species, the intended use of the pesticide and the route of exposure (residues in bee pollen and nectar; dust drift during the sowing/application of the treated*

[1] https://link.springer.com/article/10.1007/s11356-014-3220-1

seeds; and water consumption). ***However, taken as a whole the conclusions confirm that neonicotinoids pose a risk to bees.***[2]

The result of the EFSA review has led to proposals for further restrictions – and potentially a total ban – on neonicotinoids used on outdoor crops in the European Union. Health Canada, however, continues to permit the use of these pesticides on field crops.

Despite overwhelming evidence from beekeepers, provincial governments and scientists of the damage to insect pollinators by the use of neonicotinoids on field crops, Health Canada is proposing that these products be granted a three-year registration.

> *"Scientific evidence shows that with the proposed restrictions applied, the use of clothianidin and thiamethoxam does not present an unacceptable risk to bees," said Margherita Conti, an official with Health Canada's pest management regulatory agency.*[3]

PMRA continues to blame crop dust at planting and reduced number of reported incidents as evidence that risks to bees from neonicotinoids is acceptable:

> *(S)ubsequent investigation and analysis of pesticide residues suggested that exposure to neonicotinoids in dust generated during the planting of treated corn or soybean seed with vacuum planters contributed to the mortalities observed. And that a dust-reducing lubricant has solved the problem and that the number of incidents reported between 2014 and 2017 during the planting period were between 70 and 92% lower, compared to 2013.*

These conclusions are faulty and are refuted in several recently published studies. Containing dust at planting may reduce some acute exposures but does not solve the problem of chronic exposure as bees are exposed to these highly toxic pesticides from a variety of sources. After reviewing 1500 studies, EFSA concluded that exposure is not confined to crop dust:

> *Bees can be exposed to neonicotinoids in multiple ways, depending on the use of the pesticide. The assessments indicated that in many cases bees foraging on the treated crop in the field as well as in its vicinity are likely to be exposed to harmful levels of the neonicotinoid pesticides. This is because pollen and nectar of the treated crop contain pesticide residues, and plants in the vicinity can also be contaminated by dust drifting away from the field.* [4]

A recent study of surface waters in 15 agricultural areas in southwestern Ontario detected neonicotinoids in samples from more than half these sites, with seasonal maximums in spring and fall, especially in areas where row crops predominated.[5]

Another recently published study involving exposure to neonicotinoids from Canadian corn crops and crops of canola in Europe concluded:

> *The neonicotinoid contaminated pollen the honeybees collected did not belong to corn or soybean plants – the two primary crops grown from neonicotinoid treated seeds in Ontario and Québec. This indicates that neonicotinoids, which are water soluble, spill over from agricultural fields into the surrounding environment, where they are taken up by other plants that are very attractive to bees*.[6]

---

[2] https://www.efsa.europa.eu/sites/default/files/news/180228-QA-Neonics.pdf
[3] http://www.cbc.ca/news/politics/bees-environment-pesticides-1.4456011
[4] https://www.efsa.europa.eu/en/press/news/180228
[5] http://dx.doi.org/10.1016/j.chemosphere.2016.11.036
[6] http://news.yorku.ca/2017/06/29/exposure-to-neonics-results-in-early-death-for-honeybee-workers-and-queens-york-u-study/

> *Our study demonstrates that honey bees in corn-growing regions of Canada are exposed to toxicologically significant levels of NNIs for the majority of the active bee season* ***despite the mandated use of dust-reducing seed lubricants during planting****. Pollen from non-target plants represents the primary route of exposure to NNIs in our study.* [7]

It also appears PMRA has not considered the dangerous synergistic effects of fungicides commonly applied as a seed treatment on the same seeds treated with neonicotinoids.

> *The effect of neonicotinoids on honey bees quickly turns from bad to worse when you add a common fungicide Boscalid to the mix. Field realistic levels of Boscalid can make neonicotinoids twice as toxic to honeybees.*[8]

PMRA ignores reporting bias when it cites the sharp reduction in reported incidents as proof that their mitigation of crop dust has solved the problem of neonicotinoid exposure from field crops. Bee mortality continues at unacceptably high levels while beekeepers in corn and soy growing provinces continue to suffer acute bee kills, chronic poisoning and queen failures. What PMRA fails to note is that the highest number of reported incidents occurred when PMRA took physical samples of bees, comb and pollen and providing reports of pesticide residues to the affected beekeepers. Without follow up to a reported incident there is little or no incentive for beekeepers, some of whom may experience up to 12 incidents a year, to report bee kills. It is not clear why PMRA neglects to note this reporting bias.

Health Canada's Pesticide Management Regulatory Agency pollinator re-evaluation of neonicotinoid pesticides Chlothianidin, Thiamethoxam and Imidicloprid is seriously flawed. PMRA's conclusions fly in the face of scientific authorities and hundreds of published, peer-review studies. Beekeepers in Québec and Ontario continue to experience the negative impacts of the widespread use of neonicotinoid pesticides used on field crops.

Given the importance of insect pollinators to Canada's food security, there is more than enough evidence to invoke the precautionary principle and revoke the registration of these pesticides.

We are very concerned that the PMRA did not adequately consider the rapidly expanding science that demonstrates the destructive impact of neonicotinoids on beneficial insect populations. New systemic pesticides, that we fear will have similar effects on bees and other pollinators, are being introduced at a rapid rate. This makes us gravely concerned for the future of beekeeping and for the health of the natural environment.

We request an immediate, independent review of PMRA's decision-making process, methods and policies for pesticide approvals.

Sincerely,

Jim Coneybeare
President

[7] https://www.apiservices.biz/documents/articles-en/chronic_exposure_neonicotinoids_reduces_honeybee_health_near_corn_crops.pdf
[8] http://science.sciencemag.org/content/356/6345/1395