

Ministry of Agriculture,
Food & Rural Affairs

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Agriculture Development Branch

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Pest Management Regulatory Agency – Publications Section
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To Whom it May Concern:

This letter is in response to the Pest Management Regulatory Agency's (PMRA) solicitation for stakeholder comments on **PRVD2018-12, Proposed Re-evaluation Decision for Imidacloprid and its associated end use products: pollinator re-evaluation**. The Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA) has the following comments on this proposal.

Imidacloprid is a broad spectrum, insecticide that is used on many crops grown in Ontario. A wide variety of plants and plant products are produced commercially in Ontario, including over 125 different fruit and vegetable crops. Based on Statistics Canada's recent release, farm cash receipts for Ontario crop production were \$6.45 billion in 2017. This includes grains and oilseeds, potatoes, tobacco, field vegetables, greenhouse vegetables, fruits, nursery and floriculture, sod, ginseng and maple products. This also represents 50.4 per cent of total Ontario farm cash receipts (excluding government program payments).

The edible horticulture sector supports 30,000 farm-based, non-family jobs in Ontario, as well as a further 8,700 jobs specific to horticulture and specialty crops. Ontario is a leading province in terms of crop production (producing 49 per cent of Canada's soybeans, 62 per cent of its grain corn, 69 per cent of its greenhouse vegetables, 66 per cent of its grapes and 32 per cent of its apples).

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Good Things
Grow in Ontario
À bonne terre,
bons produits



Imidacloprid has been available to producers in a variety of formulations since the mid 1990's and used as a seed treatment, foliar application and soil application. It is also a cost-effective resistance management option in a number of cropping systems. However, in this most recent proposal, imidacloprid has also been suspected to negatively impact pollinators.

Imidacloprid has been a critical tool in integrated pest management (IPM) strategies for several crops such as the control of cucumber beetles on cucurbits, mullein bug on apples, white grubs on ornamentals and ginseng, aphids and leafhoppers on hops, tree fruit and vegetables and Colorado potato beetle on tomatoes.

Additional information is provided for several Ontario crops to address the PMRA's proposal for imidacloprid insecticide.

Cucurbits (cucumber, squash, pumpkin, melon)

Imidacloprid is an important pest management tool in Ontario cucurbit production. It is an effective and economical insecticide used to help manage cucumber beetles, one of the most damaging pests of cucurbits in Ontario. Ontario cucurbit producers have indicated to us that the proposal to phase out imidacloprid will severely impact their ability to manage cucumber beetles. There are few registered, economic alternatives for this pest which also transmits bacterial wilt to cucurbits. Resistance management concerns are also of critical concern with this pest.

The processing sector, which operates farms in both the US and Canada has indicated that as the use of imidacloprid continues in the US, it may be difficult to maintain production here in Canada. The annual farm gate value of these crops is in excess of \$40 million. Furthermore, the finished products derived from these crops and sold by Ontario processors, multiply this value considerably.

Apples

Imidacloprid is an important pest management tool in Ontario apple production which is valued at approximately \$60 million. Imidacloprid is an effective and economical insecticide used to help manage mullein bug of apples. Mullein bug causes significant economic damage to approximately 55% of the varieties of apples grown in Ontario. The alternatives registered are not used and are not effective. Without imidacloprid, it is estimated that 80 – 100% of the affected varieties will suffer significant crop injury.

It was also noted by the Ontario Apple Growers (OAG) that Imidacloprid is not used post-harvest or as a soil drench as referred to in PRVD2018-12. OAG have also proposed a reduced number of applications with restricted timing to mitigate harm to pollinators in their direct correspondence to PMRA. Imidacloprid is a critical component of the mullein bug management strategy in Ontario apple orchards. Furthermore, imidacloprid is used as an effective resistance management tool for several other major apple pests including aphids. If imidacloprid is lost as a pest

management tool, Ontario apple orchards may suffer increased pest incidence and the risk of resistance development is increased.

Stone fruit (cherry, apricot, peach, nectarine, plum)

Imidacloprid is an important pest management tool in Ontario stone fruit production which is valued at approximately \$56 million. Imidacloprid is an effective and economical insecticide used to help manage cherry fruit fly of cherries and aphids on peaches and nectarines. These pests can cause significant damage to stone fruit crops and resistance concerns to alternative products is a major concern.

It was also noted by the Ontario Tender Fruit Growers (OTFG) that Imidacloprid is not used post-harvest or as a soil drench as referred to in PRVD2018-12. OTFG have also proposed a reduced number of applications with restricted timing to mitigate harm to pollinators in their direct correspondence to PMRA. Imidacloprid is a critical component of the cherry fruit fly management strategy in Ontario cherry orchards. Furthermore, imidacloprid is used as an effective resistance management tool for several other major stone fruit pests including aphids. If imidacloprid is lost as a pest management tool, Ontario stone fruit orchards may suffer increased pest incidence and the risk of resistance development is increased.

Ginseng

Imidacloprid is a critical pest management tool in Ontario ginseng production. It is the only effective and economical insecticide used to help manage white grubs that infest ginseng gardens.

Ontario ginseng producers have indicated to us that they only use Imidacloprid once in newly seeded gardens in late summer when no plants are in the field and therefore they feel that there is minimal risk to pollinators. The proposed phase out of imidacloprid may place our highly valuable ginseng sector in jeopardy particularly if historical losses of 30 – 50% occur. At the current value of Ontario ginseng of \$296,000 per hectare, minimum potential losses could reach over \$200 million.

Outdoor ornamentals

In Ontario the ornamentals sector is valued over \$1 billion in sales and employs over 70,000 people. Imidacloprid is a critical pest management tool in Ontario outdoor container and field ornamental production. It is one of two effective and economical insecticides used to help manage white grubs that infest ornamental plantations. Furthermore, Japanese beetle larvae are a quarantine pest that requires robust and effective management under current Canadian Food Inspection Agency guidelines. Currently 15 – 20 % of greenhouse and outdoor ornamental production requires treatment for Japanese beetle. Resistance management concerns are also of critical concern with this pest.

Field Tomatoes

Colorado potato beetle remains as the key insect pest of tomatoes and in spite of several registered alternatives to imidacloprid, it remains as the most effective potato beetle management option. Colorado potato beetle has a well-documented history of developing resistance to insecticides and the processing tomato sector has indicated to us that they are very concerned about the loss of this important pest management tool. In their direct correspondence to PMRA, they have indicated that only an in-furrow application is made at the transplanting stage, well before bloom stage and that tomato flowers are not attractive to bees.

Hops

Imidacloprid is an important pest management tool in Ontario hops production which is valued at approximately \$1.5 million. Imidacloprid is an effective and economical insecticide used to help manage aphids on hops and it is used throughout the production cycle to manage this pest. The hops sector has indicated in direct correspondence to PMRA that although the hops bloom period is from June to harvest, there is no pollen or nectar in these blooms and pollinating insects do not visit this crop. There is considered to be no risk to pollinators in hops production from the foliar application of insecticides.

Other Crop Sectors

A number of other crop sectors including sweet potatoes, globe artichokes and tree nuts have also indicated to us that imidacloprid is an important component of their pest management program for the same reasons as outlined above for other crops. Resistance management, the re-evaluation status of other insecticides and the continuing registration of imidacloprid in the US were consistently noted as major concerns.

In closing, the phase-out of imidacloprid insecticide would impact the pest management programs for many of Ontario's key crops, including apples, stone fruit, ornamentals, ginseng, hops and vegetables. There may be poorer control of some insects and a more rapid development of resistance to the remaining, alternative insecticides. In the absence of imidacloprid, Ontario would need time to re-create, evaluate and implement a robust and effective IPM strategy.

OMAFRA encourages a graduated, measured response to re-evaluation registration decisions, taking into account the economic, environmental, health and social impacts.

Thank you for your consideration of these comments. Please acknowledge receipt of this response to PRVD2018-12.

Sincerely,

A handwritten signature in cursive script that reads "D. Nemeth".

Deanna Nemeth
Manager

- c: C. Hunter, OFVGA
- S. Marshall, OTFPMB
- K. Ciceran, OAG
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