



INFORMATION REPORT

TO:	Mayor and Members Board of Health
COMMITTEE DATE:	September 18, 2014
SUBJECT/REPORT NO:	Neonicotinoid Pesticides and Honey Bee Populations - BOH14031 (City Wide) (Outstanding Business List Item)
WARD(S) AFFECTED:	City Wide
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SUBMITTED BY: SIGNATURE:	Elizabeth Richardson, MD, MHSc, FRCPC Medical Officer of Health Public Health Services Department

Council Direction:

That Public Health Services (PHS) staff be directed to consult with the Provincial Ministries of Agriculture, Health, and Environment and Climate Change, the Federal Ministry of Agriculture and Health Canada's Pest Management Regulatory Agency, with respect to the progress made to date regarding the decline of honey bees; and review if there are any deficiencies and report back to the Board of Health.

Information:

PHS staff consulted with Provincial and Federal ministries and agencies, as directed by Council. This report summarizes information regarding actions that are being taken to investigate the effect of neonicotinoid pesticides on honey bee populations in Ontario and Canada.

Agriculture Canada

On July 15, 2014, the Minister of Agriculture announced an investment of \$1 million to the Beekeepers Commission of Alberta to initiate a four year nation-wide surveillance project to document the health profile of honey bee colonies in Canada. The project will seek to identify the nature, scope and magnitude of diseases, pests and chemical agents present in Canadian apiaries. This type of surveillance has traditionally been done at a regional level, whereas this new initiative aims to coordinate surveillance

activities at a national level to understand better determinants of the health of honey bees. Data gathered from the national surveillance initiative will also provide support for Canada's position for international trade of honey bee stock. This project builds on the work that Agriculture and Agri-Food Canada's researchers, in partnership with the Canadian Honey Council, the Canadian Association of Professional Apiculturists and their international counterparts have undertaken in recent years to address emerging bee health issues.

Health Canada - Pesticide Management Regulatory Agency (PMRA)

Health Canada reports that the PMRA are working with regulatory agencies from around the world to better understand the impacts the use of neonicotinoid pesticides may have on honey bee populations. Domestically, the PMRA is working with Agriculture and Agri-Food Canada, provincial governments, grain growers, beekeepers, and the pesticide industry to find additional methods to further reduce potential pollinator exposure to neonicotinoid insecticides.

In 2014, the PMRA is closely monitoring measures to protect bees from neonicotinoid pesticides. The measures include:

- A safer dust-reducing seed flow lubricant that is now available and must be used;
- Safer seed planting practices that must be followed;
- New pesticide and seed labels with enhanced warnings are available;
- Health Canada has asked for additional information to support the continued need for neonicotinoid treatment on up to 100% of the corn seed and 50% of the soybean seed.

The measures were introduced in a Notice of Intent (NOI) issued by the PMRA in September, 2013 titled *Action to Protect Bees from Exposure to Neonicotinoid Pesticides*. Results of these measures to protect bees from exposure to neonicotinoid insecticides will be closely monitored as the 2014 planting season progresses. Pending the outcome of these measures, the PMRA will consider if any further actions may be necessary.

Ontario Ministry of Agriculture, Food, and Rural Affairs (OMAFRA)

To address concerns of reported bee mortality, the Ontario Bee Health Working Group was established by OMAFRA in July 2013, and reported back in March 2014. The mandate of the Working Group is to support the development and implementation of strategies to mitigate the risk to honey bees from exposure to neonicotinoid seed treatments on corn and soybeans.

The Working Group is comprised of 33 members from government, research institutions and industry including:

- Association of Equipment Manufacturers (AEM)
- Bayer CropScience Canada
- Canadian Pollination Initiative
- Canadian Seed Trade Association (CSTA)
- CropLife Canada
- Grain Farmers of Ontario (GFO)
- Ontario Beekeepers' Association (OBA)
- Ontario Federation of Agriculture (OFA)
- University of Guelph (U of G)
- Syngenta Canada Inc.
- Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA)
- Ontario Ministry of the Environment (MOE)
- Pest Management Regulatory Agency (Health Canada - PMRA)

In March 2014, the Working Group issued the report *Ontario Bee Health Working Group Report* that identifies 13 options to mitigate the risk to honey bees from neonicotinoid treated corn and soybean seeds which include:

- Improvements to growing practices and communications;
- Environmental enhancements;
- Technology advancements; and
- Training, as well as regulatory approaches.

Many of the options have already been implemented and include:

- Improvements and promotion of Best Management Practices,
- Mandating the use of a new fluency agent and
- Developing a bee yard/field identifier application.

The Working Group sets forth that further research and analysis which may include collecting samples (soil, vegetation, water and bees) to monitor levels of neonicotinoid pesticides entering the environment, will be required before a number of identified options are implemented. The Working Group recommends a multi-pronged approach as an effective means to mitigate the risks to bees.

Ontario Ministry of the Environment (MOE)

In 2014, the MOE is conducting a bee monitoring project. The intention of the project is to examine levels of neonicotinoid pesticides entering the environment through planting of treated corn and soybean seeds and the potential impact of these neonicotinoids on pollinators. Environmental samples will be collected from apiaries, corn fields, soy bean fields, natural field habitat and watercourses. Sampling will occur in various identified locations within South-western Ontario.

Summary

Serious attention is being given to the issue of honey bee populations being impacted by neonicotinoid pesticides in Canada. Multiple government ministries and agencies, as well as non-government stakeholders are deeply invested in learning the magnitude and scope of this issue; whereby a number of research projects have been initiated. It is expected that the 2014 crop planting and growing season will provide additional data for the PMRA to evaluate in order to determine if any further regulation of neonicotinoid chemicals are necessary to protect the health and ecology of honey bee and other plant pollinator populations.