

Bee death reports continue decline: Health Canada

Neonic pesticides have been widely blamed for these losses but the reality is much more complex

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Bee deaths appear to be declining during planting season thanks to protective measures. *Photo: Thinkstock*

Measures to protect pollinators from pesticide residues in dust generated by corn, soybean and canola planting have continued to reduce bee deaths during the planting season, says Health Canada.

Following the introduction of the measures in 2014, the number of bee death incidents have remained well below the high levels of 2012 and 2013, the department said recently in its update on bee incident reports. The number of bee death incidents related to sprayed pesticides also dropped during 2016.

However, beekeepers report incidents of strange behaviour in bee colonies in the aftermath of corn and soybean planting, the report notes.

“It remains unclear if these later-season effects are a result of exposure to low levels of neonicotinoids in the hives or other factors that affect bee health such as pests and pathogens; habitat loss and food supply or hive management,” the report reads, adding Health Canada is examining the information collected in an attempt to answer these questions.

Health Canada is examining bee death reports “to determine the causality of each individual incident which may conclude that factors other than pesticides contributed to the effects observed in some yards,” the update noted. It’s also looking for “potential trends and factors that may be contributing to bee incidents.”

“Bee health is a complex issue and evidence suggests that bees are increasingly stressed by a combination of factors.”

Agriculture Canada lists potential risk factors as parasites, pests and pathogens, habitat loss and food supply, queen bee quality, weather, general hive management and exposure to pesticides.

Neonic seed treatments used in corn, soybean and canola production have been publicly branded as the biggest threat to pollinator health although bee experts generally say the factors identified by Health Canada all play a role.

Last month, Health Canada said it plans to phase out the use of the neonic imidacloprid in three to five years, and conduct special reviews of clothianidin and thiamethoxam, two other popular neonics.

The department’s concern lays with the risk the pesticides “may pose to aquatic invertebrates, including insects, as they are being detected frequently in aquatic environments.” Bees were not identified as an issue in the announcement.

Consultations on the imidacloprid phase-out will be held in parallel with a joint review by the Pesticide Management Regulatory Agency, the U.S. Environmental Protection Agency and the California environment agency on the impact of neonics on pollinators. It’s scheduled to be finished in 2017.

Health Canada has begun a more intensive examination of bee years in Ontario in co-operation with the provincial Environment and Agriculture ministries. Results of the 2014-15 hive-monitoring project are being analyzed.

The federal department noted that even with mitigation measures in place to protect pollinators, incidents may still occur. The reports allow it “to detect adverse effects or potential risks that may not have been evident during the initial registration of a pesticide. Assessment of these incident reports may lead to additional restrictions and/or label improvements.

“Of all bee incidents reported to Health Canada between 2012 and 2016 only a small percentage (three to 13 per cent), were potentially associated with spray application.” The incidents are examined and could lead to changes in mitigation measures when the pesticide is applied.

At the same time, the number of bee yards reported to have late-season effects increased to about 70 per cent of the total reports. “It remains unclear if these later-season effects are a result of exposure to low levels of neonicotinoids in the hives or other factors that affect bee health, such as pests and pathogens, habitat loss and food supply, or hive management.”

Health Canada also said information collected in the hive-monitoring project will be considered along with the incident data to try to answer these questions.