How can we let this happen?

Dear Editor,

In his recent informative letter to *Central Hastings News*, Mr. Wilson of Stirling concluded that, "We and the bees are in trouble". Indeed, the very foundation of farming communities everywhere is certainly in peril if bees and bee-pollination disappear.

I urge your readers to take a walk in a flower garden or along a country road in Hastings County and see if they can spot a honeybee; or a bumblebee; or a bee of any kind. Chances are they will discover that the milkweeds and clover blossoms, which are usually buzzing with bee activity, are characterized by the eerie, death-like silence that surrounded the apple trees and lilacs in the spring.

There is overwhelming evidence that a group of systemic insecticides named neonicotinoids – chemically related to nicotine – are contributing to beehive contamination, bee mortality, and unprecedented population declines. Both the manufacturers and government regulatory agencies are well aware of the toxicity of these chemicals.

For example, the systemic insecticide "ADMIRE" has been used in Canada for over 10 years to control insect pests on over 40 fruit and vegetable crops. The manufacturer's product labelling for ADMIRE, as well as its Material Safety Data Sheet (a mandatory document under Health Canada's *Hazardous Products Act*), state that ADMIRE is "highly toxic to bees", "extremely toxic to aquatic invertebrates", and "toxic to birds".

The manufacturer's remedy to "protect" bees from the toxicity of ADMIRE is to caution users, on the product labelling, that the insecticide is not to be used on flowering crops or weeds <u>if bees are visiting the treatment area</u> (emphasis mine). What a noble remedy. Direct exposure, however, is only the tip of the iceberg.

ADMIRE and other "systemic" insecticides are chemically designed to maximize effectiveness, so they have a very insidious side. As the name suggests, once they are applied to crops, seeds or to the soil, the insecticides infiltrate a plant's systems and are transported to its leaves, flowers, nectar and pollen. In this manner, the insecticides persist for days, weeks, and even months. Accordingly, in treated fields and orchards, bees are indirectly exposed to these insecticides throughout a growing season and at all stages of development in the hive – whether or not bees are present in a crop at the time of application.

According to the Ontario Beekeepers' Association web-site, scientific research has shown that "there is no safe level of exposure for honey bees: even very small quantities of neonicotinoids affect pollinator species". The Association is working hard to minimize environmental risks to bees and to prevent a recurrence of the incidents of 2012, which involved the acute and chronic poisoning of honey bees by neonicotinoid insecticides in many parts of agricultural Ontario.

In this confusing world of corporate spin, political propaganda, and other expressions of bovine dung, it is often hard to know what to believe and whom to trust. In Europe, where bees are also disappearing at alarming rates, the pesticide industry continues its policy of denial. One leading manufacturer recently stated in a press release that "a decision in Europe to restrict use of neonicotinoid-containing products would not improve bee health".

That's quite a statement, isn't it? The company's own documents filed with Health Canada's Hazardous Products reveal that two of its neonicotinoid-based insecticides (ADMIRE and CONCEPT) are "highly toxic to bees". Common sense and my scientific training tell me that this type of corporate logic is seriously flawed.

Finally, is it only me, or is anyone else offended by the marketing of a systemic insecticide under such a benign name? In my opinion, "Admire" is an appropriate name for a cuddly teddy bear, not a lethal insecticide. Teddy bears I do trust.

During the 1960s and 1970s, we almost lost for all time the continental populations of Bald Eagle and Peregrine Falcon. Governments listened to the scientific community and banned the use of DDT. Eagle and falcon populations are recovering. Will governments listen and respond this time to safeguard bees, songbirds and our family farms? I urge your readers to sign the on-line petition (www.ontariobee.com) to ban neonicotinoid-based pesticides in Ontario.

Can our children and grandchildren survive in a world without bees? I am sorry, I don't have an answer for you. But I can pose an equally relevant question: How on Earth could we let that happen?

Sincerely,

Robert Ferguson, M.Sc., R.P.Bio. (Ret.)

Marmora