



September 13, 2016

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Via email: [marc.legrand@hc-sc.gc.ca](mailto:marc.legrand@hc-sc.gc.ca)

Re: OBA response to changes to the distribution and/or use of antibiotics and other veterinary medicines on honey bees

Dear M. Legrand,

The Ontario Beekeepers' Association represents over 3,000 Ontario beekeepers. Honey bees are indispensable to Ontario's agriculture, yet our apiculture industry continues to battle multiple threats to the health of honey bees and the economic viability of beekeeping.

***The OBA strongly recommends a program of surveillance, education and training with full access to antibiotics. The OBA warns that any restrictive access to antibiotics, such as requiring beekeepers to obtain a prescription from veterinarians, would be counter-productive and harmful to Ontario's already fragile honey bee health and beekeeping industry.***

American Foulbrood (AFB) is a highly contagious disease that kills developing bees, with millions of infectious spores produced in each affected bee. As bees clean their hive, they carry spores to all parts of the hive, including the honey, and to other hives. Honey bee larvae are infected when they are less than 48 hours old by ingesting spores with their food. Once ingested, the spores germinate and continue to multiply until larval death. AFB can spread rapidly through a colony and the spores are extremely difficult to eliminate since they are resistant to heat and most disinfectants. They can remain viable in beekeeping equipment for years.

AFB is a particularly pernicious disease of honey bees much feared by beekeepers. AFB spores are so difficult to kill that they can be reactivated after 70 years of storage. Destruction of bees and burning of equipment is typically used to clean up affected hives.

Oxytetracycline is the most widely used approved antibiotic to control AFB. Tylosin tartrate is also used to control the disease. Beekeepers have used antibiotics to help control American Foulbrood. While the antibiotics don't kill the spores, they do prevent the bacteria from multiplying. By treating hives with antibiotics, clinical AFB can be suppressed.

Canadian beekeepers have been using oxytetracycline for over 60 years and it is a prime example of how to avoid antimicrobial resistance. The number of cases of resistance is very small when compared to the length of time this drug has been used to treat AFB.

Beekeepers use antibiotics to suppress AFB spores in hives. Beekeepers purchase antibiotics from bee supply stores and others. Access to antibiotics is important to ensure that AFB is suppressed and not allowed to spread in the bee yard or to other bee yards. Any delays or obstacles to obtaining antibiotics could lead to a broader outbreak of the disease.

Exposure to AFB is virtually impossible to avoid in Ontario. AFB spores have been found in hives or on feral bees in practically all Ontario beekeeping areas. Ontario now has a number of colonies with bee yards concentrated mostly in southwestern Ontario. Proximity of bee yards and travel to and from pollination sites make contact among bees from different beekeepers and potential spread of AFB spores highly likely.

While Ontario has an excellent bee inspection program, the increased demand for pollination services now has a growing number of colonies moving outside of Ontario where they are exposed to colonies which may be AFB-infected. Last year over 40,000 hives travelled to and from blueberry pollination sites in the Maritime provinces.

The number of new beekeepers in Ontario has increased greatly in recent years. While the OBA has an excellent Tech-Transfer Program, not all of these new beekeepers have a solid foundation in the control of bee diseases and the proper use of antibiotics. Infected swarms or abandoned hives represent additional vectors for AFB infection. Any obstacles to purchase of antibiotics will hinder control or suppression of AFB spores and discourage reporting of AFB cases and registration of bee yards.

The economic viability of beekeeping in Ontario has been challenged. Exposure to neonicotinoid pesticides – widely used in Ontario – has been linked to high mortality rates, record levels of queen replacements, and lower Ontario honey yields. Ontario beekeepers also face strong downward pressure on price from cheap imported honey. Any additional increase in the operational costs to commercial beekeepers cannot be passed on to consumers and will cause additional economic hardship. Delays in treatment leading to a full blown outbreak of AFB that requires destruction of hives will cost beekeepers at least \$600 per hive to replace frames, woodenware and bees.

Current Best Management Practices for the use of antibiotics requires beekeepers to feed antibiotics prior to a honey flow when only brood chambers are on in the spring or after honey supers are removed in the fall. Testing of Ontario honey samples by OMAFRA has shown antibiotic residue levels safely below the maximum allowable.

The OBA understands Health Canada's desire to review the use of antibiotics and accordingly suggests the following to ensure the proper use of antibiotics by beekeepers:

1. Increase training for beekeepers on the proper use of antibiotics to suppress AFB spores. This includes biosecurity practices, regular inspection of bees, detection of AFB and proper application of antibiotics to suppress AFB.
2. Require all new beekeepers, and within five years, all beekeepers, to successfully complete a course on the proper use of antibiotics to obtain certification that will allow them to purchase antibiotics for the suppression of AFB.
3. Continue AFB surveillance by OMAFRA bee inspectors, especially for high risk hives, such as those that move out of province for pollination or those in high density areas.
4. Expand OMAFRA honey testing to ensure antibiotic residues remain well below acceptable maximum levels.
5. Continue support from the governments of Ontario and Canada for a ban on importation of bees into Canada to avoid the introduction of antibiotic-resistant bees.

OBA and OMAFRA enjoy an excellent collaborative relationship. Together, we have proactively addressed important emerging issues, including the overuse of neonicotinoids and the invasion of Small Hive Beetle.

We have put these recommendations forward in the same spirit of collaboration that recognizes the primary importance of bee health and the economic realities of Ontario's beekeeping industry.

Sincerely,



Tibor Szabo  
President

cc: Leslie Woodcock, Director | Animal Health and Welfare / Office of the Chief Veterinarian for Ontario, OMAFRA

Paul Kozak, Provincial Apiarist, OMAFRA