

Canadian laws, rules, ordinances or regulations are relatively consistent from province to province. Manitoba will serve as an example for looking at provincial jurisdictions.

European Honey Bees (EHB) & Bee Equipment

The federal agency known as the Canadian Food Inspection Agency (CFIA) deals with bee biosecurity, and industry safety, quality and traceability (of both bee products and the bees themselves). European Honey Bees are considered livestock so fall under agriculture, and are under provincial jurisdiction. Most provinces have a separate 'Bee Act' that outlines the process of registration of all beehives, the duties and powers of inspectors, the process if disease is detected and the associated regulations. Manitoba has "The Bee Act" C.C.S.M c. B15 proclaimed by the Crown 1 February 1988 (with the advice and consent of the Legislative Assembly of Manitoba). There is no formal training course required to be taken by a prospective beekeeper, however the provincial agricultural department Manitoba Agriculture Food and Rural Development (MAFRD) has extensive extension and education materials available on their website and through their local offices. Provincial staff hold periodic workshops to assist new beekeepers, but a great deal of outreach is done by various producer organized associations.

A prospective beekeeper must make application to the province which is reviewed by an extension apiarist and is valid as long as they comply with the rules and regulations outlined in the act. Manitoba is piloting an on-line app that allows beekeepers to register their hives and through which they will receive notices of pesticide application in the vicinity of their hives. This app was developed in Australia and has potential to be very useful for beekeepers world wide. There are a number of apps available to help beekeepers track their hives and the health of their bees.

Biosecurity Standards

Biosecurity standards are a federal jurisdiction and as referenced above fall under CFIA. This document outlines the components of a biosecurity plan along with response plans and recommendations for operations management. The plan should address bee management, bee health, as well as access to the bees/beekeeping equipment and the movement of both.

There are strict guidelines with regards to the importing of queens and replacement stock of live EHB's and is controlled by CFIA.

City Bees

Urban beekeeping is becoming more popular and various city by-laws are being amended to allow beekeeping within city limits (all are still subjected to federal and provincial regulation). Winnipeg is the largest city in Manitoba and is currently undertaking public consultations to allow expanded urban beekeeping. Beekeeping is allowed in the downtown and certain areas that have been zoned to allow it (for example the roof top of the University of Winnipeg downtown and the grounds of the University of Manitoba adjacent to the Agricultural Department). The proposed regulations limit a property to four hives plus one nuc with requirements for provisioning of food and water, also with setback distances of six meters from the edge of a permeable fence or no setback if next to a solid fence of vegetative obstruction at least 1.5 meters tall. Urban beekeeping is allowed in Vancouver BC, Calgary and Edmonton AB, Saskatoon SK, and Toronto ON. All cities that allow beekeeping have guidelines similar to Winnipeg. Interestingly, Toronto allow hives but they must be a minimum of 30 meters from any structure – this would functionally eliminate most private properties within the greater Toronto area.

Bees in AgroEcosystems

Various provinces have wildlife damage compensation programs for damage done to private property and agricultural crops due to wildlife. The Manitoba program covers losses caused by migratory waterfowl and big game (deer, elk, moose, bear, wood bison, ducks, geese or sandhill cranes). It is publicly funded with no cost to the producers to cover up to 90% of losses to beehives and related equipment, honeybees, brood and honey. All leafcutter bee products and equipment are covered under this as well. As I mentioned the amounts and species covered may vary. This program does not cover losses due to pesticide exposure.

In addition to reports of dead EHB hives in the spring and the growing body of evidence that certain pesticides have a strongly toxic effect on bee (both native (NB) and the EHB), Canada saw a significant die off of EHB's in Ontario and Quebec the spring and summer of 2012. A massive die off of EHB was found to be attributed to the planting of corn and soybean seed treated with neonics, the specific mode of actions being through the dust generated during planting. The final tally was estimated to be approximately 50 million EHB. This sparked a formal review of planting processes and resulted in the implementation of a multi-faceted plan to reduce risks to pollinators; the implementation of beneficial management practises (BMP's) to be used when planting with pre-treated seeded, treated seed dust standards, labeling on treated seed tags to notify growers and applicators to the potential dangers of the dust and improved labelling.

To get some sense of what impacts the spraying of chemicals may have on native bees, a single application to 8 trees in a Target parking lot resulting in a massive die off of bumble bees that scientists where able to collect and count. The final number was close to 60,000. They couldn't count the number of small bees that died, but one can only imagine how many bees are killed during the application of insecticide in Agro Manitoba on tens of thousands of acres.

The Health Canada's Pest Management Regulatory Agency (PMRA) has initiated a review of neonics, they are proposing to phase out imidacloprid over 3-5 years and enhanced risk assessments, review of research and public consultations are underway for clothianidin and thiamethoxam. The entire process is expected to take until 2020. In the interim they changed regulations on the use of some specific neonics restricting how (drench vs pre-treated seed) and when (time of day) they could be used.