

Industry Overview:

Honey Bees



Our Food. Our Future.
Growing Opportunities in Agriculture

 Newfoundland
Labrador

Apiculture is the raising and caring of bees for commercial or agricultural purposes. Simply put, apiculture is beekeeping! The honeybee (*Apis mellifera*) is a domesticated animal that beekeepers raise in order to obtain food sources, particularly honey.



In Newfoundland and Labrador there are currently six commercial beekeepers and 800 honey bee hives. The province has a unique apiculture setting because it is one of the last places on Earth that does not have Varroa mite (*Varroa destructor*). This mite can significantly hinder a honey bee colony's viability, with significant infestations leading to the death of the colony. It is the most destructive parasite of honey bees worldwide. Because Newfoundland and Labrador is free from this parasite, it has one of the last clean stocks of honey bees.

A honey bee colony is a caste system. The hive consists of one queen bee, along with worker bees and drone bees with each bee having a different responsibility in the hive. The queen bee's role is solely to lay eggs and she can lay anywhere between 1,000 to 1,500 eggs per day. The worker bees are all female bees and do just

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that - work. They forage, raise young bees, clean the hive, tend to the queen, protect the hive from intruders and build comb. There can be anywhere from a few thousand to 80,000 worker bees in a colony. Drone bees are the male bees. Their sole responsibility is to mate with an unfertilized queen, and they are evicted from the hive in the fall. Drone numbers range from a few hundred to a thousand in a hive.

A queen bee can live up to four years however she is usually replaced after two years. Worker bees live for six weeks in the summer and four to nine months during the winter.

The lifecycle of a honey bee depends on the caste it is in. As shown in the table, the total time of development in days is shortest for queens and longest for drones.

Stage	Queen	Worker	Drone
Egg	3	3	3
Larva	5.5	6	6.5
Pupa	7.5	12	14.5
Total	16	21	24

Bees pollinate most of the food we eat. If a plant contains a flower, honey bees will pollinate it. This includes many fruits and vegetables such as apples, blueberries, cranberries, strawberries, raspberries, canola, beans, cucumbers, pumpkins and many more. Without bees we would not produce nearly as much food.

Honey bees produce products that are beneficial for human health and can be sold by beekeepers. Honey is the most common product that is harvested from the hive however bees also produce wax, pollen, propolis and royal jelly. Honey and other hive products are valued at \$200 million annually in Canada. In the Atlantic Provinces, these hive products contribute \$3 million to the economy.

