

# Newfoundland and Labrador Agriculture Industry

## Bee Industry Overview

Apiculture is the raising and caring of bees for commercial or agriculture 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.

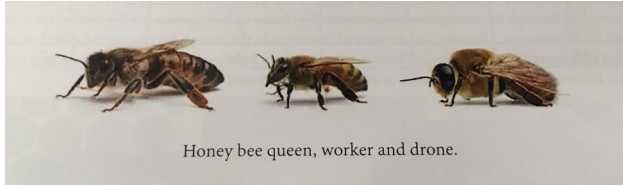
To be considered a “commercial beekeeper” one must have 50-plus hives. In Newfoundland and Labrador there are currently five commercial beekeepers and 500 honeybee hives. The province is a unique apiculture setting because it is one of the last places on Earth that does not have *Varroa* mite (*Varroa destructor*). This mite can significantly hinder a honeybee colony. It is a parasite that lives on the honeybee and robs it of blood, making it hard for the honeybee to survive. Thus, Newfoundland and Labrador has one of the last clean stocks of honeybees.

A honeybee 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 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 a virgin queen. They are evicted from the hive in the fall. Drone numbers range from a few hundred to a thousand in a hive.

| Stage        | Queen     | Worker    | Drone     |
|--------------|-----------|-----------|-----------|
| Egg          | 3         | 3         | 3         |
| Larva        | 5.5       | 6         | 6.5       |
| Pupa         | 7.5       | 12        | 14.5      |
| <b>Total</b> | <b>16</b> | <b>21</b> | <b>24</b> |

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.



Honey bee queen, worker and drone.

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



### Why are honeybees important?

Bees pollinate most of the food we eat. If a plant contains a flower, honeybees will pollinate it. This ranges from apples, blueberries, cranberries, strawberries, raspberries, canola, beans, cucumbers and pumpkins. Without bees we would have no food.



### Hive Products:

Honeybees 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, royal jelly, 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.



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