

## Bee Keeping 101

Stephen Livingstone (Jolly farmer, Woodstock, NB)

### Background

- 0. Stephen was the traffic manager for Jolly Farmer since 1992
- Zero. Jolly Farmer took care of bees in late 80s, early 90s
- Zero. Stated caring for bees again in 2009
  - 0. Jolly farmer went from having 125 colonies in 2002 to having 1 small colony by 2009
  - 0. Stephen, along with his wife and 4 kids, took over the management of Jolly Farmer's one small hive in 2009 then bought 4 more small hives during the summer
  - 0. Since that time we have been on a journey with the bees

### Beekeeping Terms

- . Worker bees
  - 0. Smaller bee
  - 0. Most of the hive is comprised of worker bees
  - 0. Do all of the work in the hive
- Zero. Caring for the queen
  - . Feeding the baby bees,
    - 0. Keeping the hive warm or cool
- Zero. Collecting food
  - 0. 6 week life span in the summer, several month life span in winter
- Zero. Once their body is damaged, they end up dying
- Zero. Queen bee
  - . Largest bee
    - 0. Only one queen in the hive

- . All she does is lay eggs, does not “rule” the hive
- Zero. If the queen is not good, then there will be no babies
- Zero. Mates once for life
- . Drone bee
  - . Only alive in spring and summer
  - 0. Their only job is to mate with new queens
- 0. Comb
  - 0. The building of the bees
    - . Wax substance
  - Zero. 6 –sided cell, 1 cm deep, 5 mm wide
- 0. Comb cell
  - . Individual cell of the comb
- Zero. Brood
  - 0. Many stages of the brood
    - . Queen lays eggs in cell
    - . Worker bees feed larvae
    - . Larvae matures and is capped with bees wax, left for 2 weeks, undergoes metamorphosis
    - . Bee chews itself out and comes out
  - 0. A queen can lay 2000 eggs per day
- 0. Larvae
  - 0. A part of the brood cycle
- Zero. 3 stages of brood
  - 0. Queen lays eggs
  - 0. Worker bees feed larvae
  - . Metamorphosis

Zero. Foundation

### Types of Bee Hives

- . A historic relationship with humans

### Conventional hive (Langstroth hive)

- 0. Separates queen from the rest of hive to ensure honey is separate from brooding

### Pests – Varroa Mites

- . Most significant pest for bees

Zero. Around the entire world

- . Visible with the naked eye

Zero. Parasitic, suck blood from bees

- 0. Reproduce on the brood (not on the bee) and the mites then eat the larvae

Zero. Creates deformed bees which often cannot fly

- 0. Often attach to the drones (as their brooding cycle is longer). As a result, there are “drone traps” to

- . Mites carry viruses which pass disease onto the bees

Zero. Mites continue to become resistant to miticides so newer and “better” chemicals have to be made

- 0. Last year, the Canadian government had to fast-track a new pesticide

### The new Beginning

- . [www.bushbees.com](http://www.bushbees.com)

- . A site by Michael Bush dedicated to Natural Beekeeping

Zero. Makes the distinction between natural (treatment free) and organic beekeeping

### Basics of Natural Beekeeping

Zero. Natural beekeeping attempts to propagate strong bees and not strong mites

Zero. Traditional chemical treatment is similar to chemotherapy

Zero. Designed to kill the mite and almost kill the bee

Zero. Letting the bees raise their own queens naturally

Zero. A common practice is to buy queens, instead, propagate bees yourself

Zero. Keeping the ecology of the hive intact

There are 1000s of microbes in a hive, adding anything disrupts this natural balance