

New Westminster Beekeeper's Association
19 Things to Know about Beekeeping
Module 5 – Spring Build-up, Equalizing, Making Increases

This module was prepared for members of the New Westminster Beekeeper's Association and are intended to be augmented by hands-on experience in the bee yard.

Spring build-up, equalizing, and making increases (making splits) are essential tasks needed to prevent swarms and to ensure a large honey crop.

Colony Growth in the Spring

- Remember, a package holds 10,000 bees and covers three frames on both sides.
- The queen will layout about a full frame of brood in the first 2 days after the package is poured.
- A full frame of bees will hatch into 6,000 bees 21-days later, which will bring the hive population to 16,000 (less natural die-off).
- A standard Langstroth box will hold about 45,000 bees. When there are more bees than that, there is no room for the queen to lay eggs, and the hive is too congested for the worker bees to smell the queen's pheromones. Under these conditions, the colony will swarm if not managed properly.
- When a hive grows to 8 frames of bees (26,000 bees), it will have about 5 of those 8 frames with brood. The five frames will hatch in the next 10 days to add another 30,000 bees, which then crowds the colony with 56,000 bees, more than it can handle. That is when the swarming preconditions are met.



Figure 2: Close to 8 frames of bees



Figure 1: Best to count from the bottom, like this!

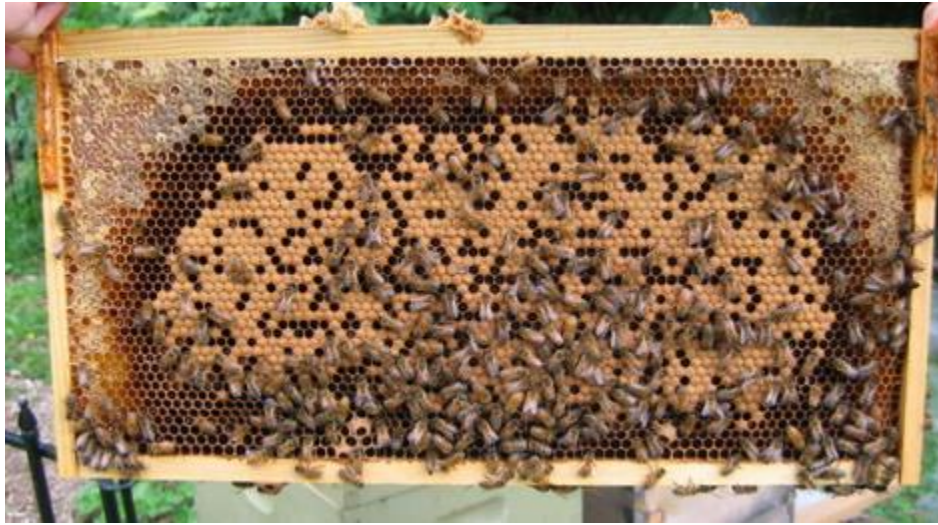


Figure 3: Frame of bees is defined as 2/3 covered with brood and includes the bees that are on it

Spring Buildup Management

- Feed like crazy starting the first nice day above 12 Celsius after Feb 15
 - 1lb pollen patty, 3 times, 7-10 days apart
 - Syrup if colony has 5 frames of bees or more
 - Frames of honey if colony has less than 5 frames of bees
 - Sugar cakes or dry sugar if no frames of honey available
 - Feed sugar until colony has 4 frame of capped honey OR if dandelions are in full bloom (~April 15)
- When the first colony(ies) are at 5/8, equalize (give a frame of brood and bees to a weaker colony)
- When all colonies are at 5/8, start making increases
 - removing 1-2 frames of brood and bees every 10 days until the honey flow starts
 - Sell the extra frames or use them to start new colonies
 - The honey flow starts when dandelions are in full bloom
 - a. The secret to beekeeping is to keep colonies as strong as possible without swarming
 - b. Feed like crazy starting Feb 15 until Dandelions are in full bloom (about April 15)
 - c. Then 'equalize' until all colonies are at 5 frames of brood
 - d. Then make increases to avoid swarming
 - e. Then when the honey flow is on, add supers and leave them alone to gather honey!

Equalizing

- Remember, a colony is either growing or shrinking. It never stays at the same population
- In spring, the colony is growing, but not all colonies grow at the same rate. The rate of growth depends on several factors, including genetics, queen age, and how strong the colony came through the winter, and other factors.

- Good bee management requires that all colonies be the same strength, so beekeepers 'equalize' the colonies to make them the same. Equalizing is also a form of swarm control.
- Equalizing is done starting about April 15 and every 10 days until blackberries bloom (~June 20)
- To equalize, remove capped, **emerging** brood, from strong colonies, brush the bees off, and the give frame(s) to a weaker colony



Figure 4: Frame of capped brood



Figure 5: Emerging Bee

Equalizing Rules

1. Remove capped, emerging brood from colonies with more than 5 frames of brood
2. Place brood frame in the centre of the weaker colony brood nest
3. Do not give the weaker colony more brood than they can keep warm at night



Figure 3: Likely too much brood for a weak colony to cover



Figure 4: The right amount of brood for a weaker colony

Place the frame of brood in the centre of the weaker colony brood nest:



Figure 5: Remove 2 outside frames first to give room for the brood frame

Making Increases

Once all your colonies are at 5/8 strength; you need to remove brood and bees to prevent swarming.

The best use of the removed brood and bees is to make new colonies to replace your winter dead-outs. The second-best use is to give or sell the livestock to other beekeepers.

For yourself, make a 4/7 colony and ensure that the three non-brood frames are full of honey and pollen. Also, ensure you add a shake of bees, ideally from a brood frame. Move the new colony 3 km away and add a queen the next day but do not release her from the cage. 3-5 days after moving the colony, manually release the queen. One after the new colony was made, return it to your apiary.

If selling or giving the brood and bees to another beekeeper, have the mother colony inspected by the Provincial Apiarist designate and obtain a selling permit. Remove the brood and bees and place in a screened box with ample ventilation. Ensure you add a shake of bees. Add a secure lid and strap the unit together to prevent bees from escaping. Please make sure that the final destination for those bees is at least 3km away from your apiary.

End.