

# SUMMER AND FALL MANAGEMENT

Robert Crouse

## “Fall is the Beginning of the Beekeeper’s Year”

Everything we do as beekeepers depends upon our personal objectives—just to enjoy having hives, competing in fairs, producing honey and wax, or even pollination contracts.

Whatever the goal, we need maximum bee populations in time for the major nectar flow from mid-May to mid-June. Good management now will help with winter survival, which makes for good bee foraging populations next spring. The key items are:

1. Make sure of a productive queens
2. Check for diseases and apply preventive medications
3. Reduce colony size for normal cluster behavior
4. Protect colony from pests (e.g., mice)
5. Ensuring adequate ventilation
6. Provide protective weather measures
7. Ensure hive food stores

*1. Make sure of a productive queen:* Has your queen done well over the last winter? Is she making a good brood pattern with only a few drones as needed? If the queen is in her second year of production you should consider an early summer replacement or you may risk having a failing queen at the peak of next years season.

*2. Check for diseases and apply preventative medications:* I was taught to treat my bees to prevent disease; I no longer do this. I treat only if I have a problem or know I will have a problem. If you have a history of nosema, you should give new, package colonies one gallon and mature colonies two gallons of medicated Fumidil B syrup by October. Don’t wait too late or the bees may stop taking in the syrup. If you have tracheal mites, treat with menthol; if you have Varroa mites, treat as directed with the medication of your choosing and not while storing honey that you plan on removing for your use.

*3. Reduce colony size for normal cluster behavior:* Unlike in the spring, you should under-super, or crowd the bees. This forces them to consolidate food stores higher up. You want every frame above the brood nest to be full of stores and it’s OK to shrink down the brood area with stores coming in from each side. Perhaps some of you have heard me explain how I destroyed excess bee populations after honey removal when I lived in the Woodlawn area of Baltimore County; of course, you can also make nucs with those bees. I had very little nectar flow after the spring and it was either reduce the bee population or feed sooner than normal just to maintain the foragers that brought back very little. If a colony is small late in the season your options to help them are limited. The best is to combine with another weak colony, saving the best queen. You could try

to get another queen or package but this is doubtful as to availability and natural brood production shut down in fall.

Bees start to cluster at 64 degrees F so the natural size of the brood cluster will be shrinking to the size the bees can cover at lower temperatures. A beekeeper must be concerned with food stores, where the food is stored, ventilation (remove excess bur comb), disease prevention, queen quality and hive box condition.

4. *Protect the colony from pests:* Don't forget some type of mouse control at the entrance if needed. Small Hive Beetles will be a problem for weak or small colonies. Just reduce the number of frames in the colony so that there are enough bees to take care of the problem. Don't store frames with stores in them where the Hive Beetles can get to them. This is also true of Wax Moth. I use a wax moth drawer in a stack of supers to treat for wax moth with paradichlorobenzene.

5. *Ensure adequate ventilation:* Colonies need ventilation to get rid of metabolic vapor the bees produce especially during the winter. Propping the outer cover up slightly can help. You can use anything handy like a small stone or stick. I have cut some tapered pieces from a cedar shingle that I then insert to make the gap to the size that I want. Some like a small upper entrance. A lot of inner covers purchased today have a cut out in them for upper entrances. You must block the cut out when not needed. I have also cut small grooves into the frame of the inner cover, too small for the bees to use but enough to aid ventilation.

6. *Provide protective weather measures:* Some beekeepers like to wrap their hives to provide some insulation for winter cold. I personally have never done this as most of our winters here in Maryland are mild enough. Even when we do get a cold spell it does not usually last long enough to harm the bees if the hive is strong and well supplied with stores. Depending on location wind breaks and placement of hives where sun light is available should be considered. Be prepared to remove snow and ice from entrances as needed.

7. *Ensure hive food stores:* Starvation can be a real threat in late summer as the weather is hot, bees are active, and food consumption is high. You need to keep check on stores either by observation—my way—or by checking hive weight by lifting or scale use. You should plan on at least 60 lbs. of food stores per hive for winter consumption. Make sure equipment such as queen excluders and pollen traps are removed. Take care that the colony does not get honey-bound—leave 3 or 4 combs with brood or empty cells in the center of the colony. Both honey and pollen should be directly above the cluster. Feed light hives syrup at 1 to 1 mix by weight and heavy syrup, (2 sugar to 1 water mix by weight) in the fall (late Sept. thru Oct.); it can be either sucrose or HFC 50% syrup base.

To use sucrose sugar at a 2:1 mix it will require a large pot on your stove. You must heat the water to near boiling—note, do **not** boil the sugar mixture—and add two pounds of sugar for each pound of water—(8 lbs water per gallon)—constantly stirring to mix until dissolved. Some advise adding Cream of Tartar to this mixture. This is not rocket science just get the mixture close to the 2:1 mix.

The type of feeder you use is a personal decision. The Boardman-style entrance feeder can encourage robbing in the late summer and fall. It is advisable to pick a style that you can leave in place for the rest of the season even until spring to feed as needed. In any case, I don't recommend any type of feeding with supers on that you plan on using for extracting due to the possibility of contamination of the honey with the sugar water.

How much honey and when you harvest is of the foremost consideration. If your area has late honey flows you can take more spring honey and leave the usually dark strong-flavored fall honey to the bees.

Enjoy your Bees!