Apis m. **Esoteria 31**

Swarm Management

OBJECTIVE: To learn how to monitor the honeybee colony to get early warning of a pending swarm. How to catch the swarm and reintroduce it into a hive body.

EQUIMPMENT NEEDED: A hive body/top/bottom or a box to put the swarm into.

INTRODUCTION: If we, as excellent beekeepers, do our job correctly, our honeybee colonies will be so healthy and happy that they will want to swarm. We can't let that happen! If we lose a swarm the remaining colony will not produce much honey in the current season.

It is important to learn how to recognize a mature colony. How to prevent swarming (managing older queens) (space and work management). How to turn excess bees into money (nucs) (packages) (repair parts).

The stimulus to swarming is lots of bees, lots of brood, lots of food, nowhere for the queen to lay eggs, and nowhere to store more honey. This causes the queen to stop laying eggs and the forager bees to stop bringing in nectar.

The bees get nervous (anxious) because life is not going along normally. You can hear and see this. The hive is very noisy and lots of bees are swirling around above the hive. Sometimes bees sit on the front of the hive in the middle of the day because there is nowhere to store the honey and the foragers have gone on strike.

Inside of the hive the queen stops laying eggs because there are no empty cells to put them. This makes the bees extra nervous! Without new eggs being laid the nurse bees determine the queen has gone puny and start drawing queen cells. It takes the queen about 10 days (without laying eggs) to get trimmed down to flying weight.

Swarms consist of 60% of bee colony which equals all the flying foragers and the old queen. You don't want to lose your old queen. She has done her job well and is laying more eggs than her replacement will lay in her first year.

A bigger loss is the large number of foragers that follow the queen. You can quickly replace a queen (buy a new one) but you cannot quickly replace 20,000 foragers.

Ultimately the damage to the colony of losing a swarm is the loss of bees and honey production for 45-60 days. This can result in a weak colony going into winter. If the queen stops laying eggs for 10 days, the new queen hatches on day 5 after the swarm departs. She waits 9 days before mating, takes up to 2-3 days to mate, and does not start laying eggs for 9 days after getting home. You could have 30 days with no eggs. That means no new bees until 21 days after she starts laying eggs, and she does not start laying 1500 eggs a day, she ramps up to that over several months. That is a total of 46 days before new bees start emerging. You can see the impact.

To discourage swarming you need to make sure there is always work and extra space inside the hive. Drawing comb is the heaviest workload you can put on the colony. Pull 1-2 frames of honey or brood out of the overly large colony that has bees hanging out on the front porch and place them in the weaker colony. This will reduce the workload in the weak colony and increase it in the large colony. You can move the frames with or without the bees, your call. By moving the bees, you reduce population pressure at the same time as creating more work. The weak hive will appreciate the new helpers.

You can physically relocate a strong hive during the day to reduce the population of foragers. While the foragers are out working switch a strong hive with a weak hive. The foragers will return to their "home" location. The foragers coming home with nectar or pollen will be welcomed into the new hive. More foragers will be gained by the weak hive from the strong hive but some foragers from the weak hive will return to the strong hive so there is not a total loss to the strong hive.

You can put a hive body or honey super on a strong hive. Put honey on some of the frames or spray them with sugar syrup. Bees will be attracted up into the super. In about one hour you can take that super off the strong colony and move it to a weak colony. Use the newspaper with a few ¾"slits in it between the new super full of bees and the weak colony to reduce fighting until the new bees accept the old queen's pheromone smell. These bees are "in hive bees" not foragers so they are less aggressive in the new colony.

Of course, you can always "split" the strong colony, but you do not want to do a big split within 30 days of a nectar flow. You must guess when the 30 days is. In this case start some 2-3 frame nucs. Take a frame with eggs on it, a frame with capped and uncapped brood, and a frame of honey and pollen. Keep all the bees on these frames. Place them in a nuc box or a hive body. Close them up for a few days and move them 10-20 feet from the original location and turn the entrance around 180 degrees when you set it down. Don't be too gentle in moving this hive. Let it "thump" when you set it down, so the bees know they have been moved

When you open the nuc the bees will reorient most of them not returning to the original hive location. The Nuc will draw a new queen. Soon you will have repair parts for your bee yard. New queens when needed, new comb already drawn out, bees and food to add to a weak colony. If you don't use any part from the nuc it will grow into a full framed (8-10) colony by winter. You can also sell/give away the parts to a needy beekeeper friend.

When you start feeding this nuc to get it to work with less exertion (stress) feed inside the hive, not a Bordman or field feeder. This keeps syrup from contaminating any honey you are collecting. Place an empty super or hive body on top of the "nuc" with an upside-down quart jar with holes in the lid in it. Put some sticks on the top bars so the jar is not directly on the top bars. The jar can weep if the holes contact the top bars causing dripping inside the hive.

Where will the swarm go, and how can you capture it?

How to capture someone else's swarm? How to manage a captured swarm to make honey this season?

How to recognize a colony left behind after a swarm and how to manage it. (relocate to introduce more foragers) New queen, slow laying eggs

Multiple swarms from same colony per year (will die in winter due to loss of bee population.)

These are all questions to be answered later

Everything you have read above may not be reality. First year queens might swarm with small colonies where there is little stored food and not much brood. This can be caused by feeding too much syrup too fast which is placed in the center of the brood area. The queen can't find a place to lay eggs and determines the hive is full of food, and brood. Be judicious when feeding a new colony that you are trying to stimulate to draw wax.