

# Preparing for nuc production

## 1. January

- a. Check hives on any day when the midday temperature is above 45° F and there is little to no wind.
- b. Look for bee activity at the hive's entrance, bees can fly at this temperature but above 50° F there should be a solid flow of bees. Do not remove frames. Check the hive entrance to be sure it's not clogged with dead bees. Clear as needed.
- c. Lift the back on the hive to determine weight. January and February can require 20 – 30 pounds of honey. Feed sugar cakes or fondant on any day the bees are flying.
- d. From the number of hives that show activity, determine how many nucs can be made. A reasonable estimate would be to calculate for a 50% loss (based on January active hives) to be replenished by nuc production.
- e. Using this estimate, calculate the amount of frames (with comb or foundation) and nuc boxes that will be required. Inventory existing equipment and adjust as desired.
- f. Continue monitoring hive weight and entrance activity.
- g. Clean and prepare empty equipment as needed.
- h. Obtain high quality, balanced pollen supplement for February feeding.
- i. Discuss queen purchases with the supplier of choice and determine possible ship dates.

## 2. February

- a. Continue to monitor the hive weight and entrance activity.
- b. Consider adding a well balanced pollen supplement and food on days that bees are flying
- c. By the end of February, a very quick midday brood check can be performed on any day that is above 55° F with little to no wind.
- d. Continue to feed both pollen substitute and sugar cakes or fondant
- e. Verify the nuc production plans based on the current active hive count
- f. If possible, complete the queen order. Typically the number can easily be lowered but it is usually difficult to increase the order due to very high demand for April delivery. Ordering a few extra queens is the better option as there is a huge local demand.
- g. Continue equipment preparation including hive stands for any additional hives and/or nucs
- h. Schedule hive inspection with the Virginia state bee inspector

## 3. March

- a. Continue to monitor the hive weight, entrance activity and brood production. (A critical decision for nuc production is assessing the strength and health of the donor hive. Strong healthy nucs come from strong, healthy donor hives).
- b. Start feeding light sugar syrup and continue protein supplement to encourage brood production.
- c. Monitor hive entrance for incoming pollen and watch for dandelion bloom. Maple trees produce large amounts of March pollen.
- d. Rearrange frames to keep pollen, nectar and honey close to the brood nest. Do not change the brood frame arrangement when checking for brood.
- e. Confirm queen shipment for mid to late April

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- f. Start assembling nuc equipment with frames, bottom boards, covers, feeders etc. to be sure the plan is sound and supported by the correct amount of equipment/queens.
- g. Confirm that hive stands are available for newly produced nucs

### 4. April

- a. Continue to monitor hives for food and brood production. By the first of April there should be several solid frames of brood in all stages. Eggs laid in late February will now be fully developed bees. The queen should be laying in solid patterns. If not, record this information and allocate a new queen to replace her.
- b. Move the prepared empty nucs to the stands approximately one week before the queen shipment is due. This equipment will contain the frames that will replace what is removed from the donor hives. Replacing with foundation is a good option as it opens the donor hive brood chamber, gives space for new comb production and encourages frame rotation.
- c. When queens are available, make nucs and replace weak queens as outlined in other documents and training sessions. It is strongly suggested that assisting more experienced beekeepers when they make nucs is a better way to learn the process
- d. Monitor these nucs closely as the space is limited and they can quickly become brood bound. Feed light sugar syrup constantly. Swarming is to be avoided and making swarm cell nucs is a good way to increase hives with local queens.

### 5. May

- a. When there are two to three frames of brood in all stages, an frame or two of nectar and capped honey, a five frame nuc is ready for sale or transfer to regular hive equipment.
- b. Start planning for July overwinter nucs using the equipment that becomes available as spring nucs are sold or transferred.
- c. Continue to build new nucs from swarm cells and a few frames of brood. These nucs can be used for replacing low performing queens in regular hives. Look for drones as they are needed for fertilizing virgin queens. Three or more full size healthy hives are needed for good drone saturation.
- d. As the spring progresses, frames of brood can be used to boost weaker hives or hives that have swarmed.

### 6. June

- a. Plan for July mite treatment and obtain the preferred treatment.
- b. Monitor honey production and adjust the hives as needed to maintain brood space
- c. Performing mite counts on all the hives
- d. Monitor queen activity and replace the queen if needed

### 7. July

- a. Schedule mite treatment after honey supers have been removed based on the treatment selection and length of treatment
- b. Perform mite counts on all hives that were not checked in June

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- c. Plan for mid-summer nuc production and schedule queen shipment
- d. Assemble nuc equipment. Because the nectar flow is past the peak, using drawn comb for mid-summer nuc production is a better option.
- e. Produce nucs after mite treatment has finished, hive testing has confirmed mites are under control and any residual mite treatment residue has been removed from the donor hive. Mite infested nucs will normally not survive winter.

### 8. August

- a. Continue to monitor all hives and feed as needed to have the required winter honey stores available for fall. Fall nectar flow is not always available. Extra store food is desirable.
- b. Perform an August mite count to be sure the July treatment worked. Treat if needed.
- c. Combine weak hives (if disease free and mite levels are controlled)
- d. Store any extra frames of honey for hive balancing in October. Three to four supers per hive is reasonable for winter
- e. The hive condition this month will dictate the successful production of next spring nucs. Uncontrolled mite infestation at this time of the season will seriously impact winter hive survival. Testing is imperative, treat as needed.

### 9. September

- a. Continue to monitor all hives and feed as needed to have the required honey stores available
- b. Perform fall mite treatment if mite counts are above threshold level
- c. Verify that there is adequate honey stores above the brood area, rearrange as needed
- d. Configure hives into the desired overwinter super number – minimum three medium supers for both full size and five frame hives with all capped frames in the top super. More is better as any left in the following spring can be used to feed other hives

### 10. October

- a. Continue to monitor all hives and feed as needed to have the required honey stores available
- b. Install mouse guards on all hives
- c. Use any extra frames of honey to boost light hives

### 11. November

- a. Continue to monitor all hives. Lift the back to determine hive weight
- b. Remove any unnecessary feeders

### 12. December

- a. Continue to monitor all hives. Lift the back to determine hive weight
- b. Start planning for January