Official curriculum for the NCSBA Master Beekeeper Program Certified Level course of instruction

Seasonal Management

Topics

Early Spring Management (Feb-Mar)

Temps must be warm enough not to chill the brood

- Evaluate food stores – feed if necessary

  -1 to 1 Sugar water – Pollen Substitutes-

Early Spring Management (Feb-Mar)

Temps must be warm enough not to chill the brood

- perfect arrangement

Early Spring Management (Feb-Mar)

Temps must be warm enough not to chill the brood

- Examine the queen laying area – plan to requeen if warranted
- Look at the health of brood and adult bees

Early Spring Management (Feb-Mar)

- Your looking for any diseases
  - AFB
  - EFB
  - Signs of Varroa Mite infestation
  - Chalk Brood
  - Sacbrood
  - Deformed Wing Virus
  - K-Wing

House Keeping Chores

Clean the bottom board

House Keeping Chores

Remove old combs and frames

Stimulate brood rearing

Feed 1 to 1 sugar water mixture

Stimulate Brood Rearing

Feed Pollen Substitute

Stimulate Brood Rearing

Expand the Brood area

Reverse Hive Bodies to help prevent swarming
DO NOT SPLIT the cluster

Let’s move to Mid spring

Mid Spring Management (Apr)

- Strong Colonies expand rapidly when nectar and pollen are abundant

Mid Spring Management (Apr)

- Weaker Colonies may not have enough stores to support rapid growth. Feeding becomes critical for your weaker colonies

- Adding a couple frames of capped brood from another colony can help beef up the population of a weak colony

Mid Spring Management (Apr)

- Stronger Colonies shift their attention to swarm preparation

Mid Spring Management (Apr)

Spring Inspection should reveal

- Expanding Brood Nest

Mid Spring Management (Apr)

Spring Inspection should reveal

- Enough Adult bees to cover the brood cells

Mid Spring Management (Apr)

Spring Inspection should reveal

- Minimum of 2 to 3 frames of honey

Mid Spring Management (Apr)

Spring Inspection should reveal

- Brood, pollen band and honey stored on the outside

Mid Spring Management (Apr)

Spring Inspection should reveal

- Active bee flights during favorable weather

Mid Spring Management (Apr)

Spring Inspection should reveal

- No disease or pest – or your already treating
- Whether queen cells are developing
- You can use queen cells to start additional colonies

Decisions to be made mid spring

Am I making Bees? Or am I making honey?

Decisions to be made mid spring

- If your plan is to make bees, then you will be splitting and making additional colonies.

Walk away Split

- Remove 4 or 5 frames, there needs to be new eggs on some of them, and place into another hive body – let the bees raise a new queen. Fill both the original and new hive bodies with new frames with foundation on either side of the frames you moved and left behind. Walk away….

Purchase a queen to make a split

- Remove 4 or 5 frames and place into another hive body, you need to find the queen – introduce the new queen into the hive body that does not contain a queen. Fill both the original and new hive bodies with new frames with foundation on either side of the frames you moved and left behind. The bees will release the new queen in 2 to 4 days and accept her.

Decisions to be made mid spring

- If your plan is to make honey, then you will be adding honey supers, over queen excluders if you choose to use them.
  Don’t leave excluder on any longer then you need to.

Swarming

- Swarming is a natural behavior, this is colony reproduction. Three factors influence swarming behavior.
  - Available room in the brood chamber for the queen to lay eggs
  - The amount of Queen Substance (Queen Mandibular Pheromones (QMP))
  - The hive environment – (congestion)

Swarm Prevention

- To help prevent swarming use 2 hive bodies, this should provide enough brood space.

Having 2 hive bodies allows you to reverse the hive bodies and makes plenty of empty cells available for the queen to lay eggs in

Swarm Prevention

- Make sure you have sufficient nectar storage above the brood chambers.

  Honey bees are going to store nectar during the flow. When they run out of space they start to put nectar in the brood area and the queen has no place to lay.

Swarm Prevention

- Young queens have stronger pheromones, less tendency to swarm.

  You may want to think about re-queening

- Remove winter entrance reducers for better ventilation

- Different races of bees have stronger swarming tendencies. Carnolians, Africanized

Swarm Control

- Demaree Method of Swarm Control – move brood above queen excluder and honey supers, leave queen on new comb below the queen excluder

- Shook Method of Swarm Control – same a demaree method only you shake all bees out of colony onto the ground in front of the hive.

- Removal of the queen – find and place her in a cage for 7 to 10 days

Swarm Control

Artificial swarm you create

- If you find the old queen still in the colony and there are swarm cells present - make a split and remove the queen to the new split. Leave 2 to 3 swarm cells and destroy the remaining.

Let’s move to Late spring

Supering for Honey

- So you were able to keep your bees from swarming. Now is time to add honey supers if you haven't done so.

Supering for Honey

Queen excluders

- Queen excluders are used by some and scorned by others.
  - can be purchased in metal or plastic
  - use only as long as needed

Supering for Honey

- Place honey supers on top of your colony and be ready to add more if we have a great nectar flow.
- Extract honey when frames are fully capped, don’t let the small hive beetle get your honey.

- On the coast the main nectar flow stops about 15 June and we have a nectar dearth until fall.

Let’s move to Summer and Winter

Summer inspections
June – September

- During the summer there is very little blooming for your bees to collect nectar or pollen
  - Watch for robbing of weaker colonies

Summer inspections
June – September

- You need to stop robbing behavior immediately – combining weaker colonies can help, or placing robbing screens over openings

Summer inspections
June – September

- Your bees are ripening nectar so you can extract
  - make sure to have enough ventilation

Summer inspections
June – September

- You need to inspect to make sure your queen is laying
  - Is your queen laying?
  - How much honey is in the brood chamber
  - Is there enough bee bread to raise healthy brood

Summer inspections
June – September

- Your looking for any diseases
  - AFB
  - EFB
  - Signs of Varroa Mite infestation
  - Chalk Brood
  - Sacbrood
  - Deformed Wing Virus
  - K-Wing

Summer inspections
June – September

- Do a mite count and take positive action to control Varroa Mites.

Sugar shake

Summer inspections
June – September

- Do a mite count and take positive action to control Varroa Mites. Alcohol/soapy water Wash

Summer inspections
June – September

- Do a mite count and take positive action to control Varroa Mites.

IPM Bottom Board

Late summer early fall

Oct - November

- How much honey do your bees have for the winter?
  - You may need to feed (control the robbing)

Late summer early fall

Oct - November

- How many bees are in the colony? You may need to combine healthy colonies for the winter.
- Put mouse guards in place

Late summer early fall
Oct - November

- Change entrance reducer to block the wind

Winter in your Apiary

December to February

- Honey Bees form a cluster starting at 57 degrees

DO NOT OPEN HIVES WHEN THE TEMPERAUTRE IN BELOW 65

Winter in your Apiary
December to Februrary

- Lifting the back of the hive body can give you an idea of how much honey is left – feed if you think they are running low. Better to have sugar water available and they don't need it than to have them starve.

Honey bees will starve and die when you cannot open the hive body

Winter in your Apiary

December to February

- Feed sugar water as needed (2 to 1) until Mid to late January and then switch to 1 to 1 to stimulate brood rearing

Winter in your Apiary
December - February

- Inventory equipment
- Place orders for equipment, bees and queens
- Paint anything that needs it
- Continue to feed, they can’t eat what’s not there, make sure to feed in a way that they can get to it.

This feeder is no good at 10 degrees

Winter in your Apiary
December - February

- Calculate next years production
  - Honey, Colonies, NUCs, Queens, Pollination
- Develop a Marketing Plan
- Design and order Honey Labels
- Decide on jar sizes and shapes and order them
- Make plans to attend NCSBA Spring and Summer meetings
- Attend regional beekeeper meetings and events to learn more and meet fellow beekeepers

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