

BEGINNING BEEKEEPING

CLASS 8: SUMMER, FALL, & WINTER HIVE MANAGEMENT

QUEEN MARKING COLORS

- ✦ White or grey — years ending in 1 or 6
- ✦ Yellow - years ending in 2 or 7
- ✦ Red - years ending in 3 or 8
- ✦ Green - years ending in 4 or 9
- ✦ Blue - years ending in 5 or 0

HOW DO YOU MARK A QUEEN

- ✦ Buy one of the marking pens (folks have also used nail polish or white out - not sure I'd recommend that). About \$3 each or can buy in kit.



MARKING A QUEEN BEE

- ✦ You are going to make a mark on her Thorax

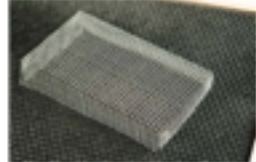


MARKING A QUEEN

- ✦ There are a variety of ways to "hold" her in place while you mark her



MARKING QUEEN



RECAP OF LATE WINTER/SPRING

- ✦ Packages and Nucs are being installed (save your Nuc boxes)
- ✦ Queens are laying a lot and brood is building up fast
- ✦ We are feeding our new bees light sugar syrup to help get them going, stimulate brood rearing, and wax building
- ✦ We're adding frames with foundation (or letting them build their own from starter strips)
- ✦ We're adding equipment in preparation for nectar flow

ADDING SUPERS

- ✦ You must have good nectar flow BEFORE adding foundation (or be feeding light syrup — a lot of it!)
- ✦ Super more conservatively when using foundation
- ✦ Bees can be induced to work foundation either by bottom supering or by exchanging some drawn combs from below with frames of foundation

LATE APRIL/MAY/EARLY JUNE

- * Black locust
- * Blackberries/Strawberries
- * Tulip Poplar
- * Black Gum

WE'RE SEEING REPRODUCTIVE SWARMS

- * Remember, swarm prep by the bees include more drones, queen cups or queen cells on bottom of frames or sides
- * We can split big hives to create more hives and fresh queens or catch swarms and treat as we do our package bees (except the queen is already out)
- * Having a spare nuc box around is really helpful for catching swarms. Keep a couple of drawn comb frames in it as well.

HANDY TO HAVE AROUND

- * Nuc boxes (\$8-\$10 wax cardboard/\$18-\$20 Pro Nuc)



SUMMER MANAGEMENT (JUNE/JULY/EARLY AUGUST)

- * Overview
 - * Main nectar flow is winding down unless you are in the mountains and/or have sourwood nearby
 - * Honey production continues (drying/capping)
 - * Honey extraction time
 - * Swarming may still be going on
 - * Nectar dearth/Robbing season
 - * Monitoring hives for pests/diseases/queen issues

TRANSITIONAL TIMES CAN BE HARD

- ✦ As nectar flow slows, bees can start to get grumpy
- ✦ Small Hive Beetles/Varroa are starting to peak
- ✦ Absconding may occur depending on genetics
- ✦ Queen may be laying less because food coming in has declined

DO YOU TAKE HONEY?

- ✦ We are going into the nectar dearth time of year so bees will be bringing in some nectar from plants like clover or ornamental plants, but not enough (probably) to make more honey until fall.
- ✦ We don't ever know what fall nectar flow will be, but if we are having a hot, dry summer, the fall nectar flow will probably not be good.
- ✦ Your bees will probably need 40-60 pounds of honey to get through winter, so think about that before you take honey from your hives.

REMOVING HONEY SUPERS - TIMING

- ✦ As the queens start laying less and nectar that has been distributed around the hive to dry out gets put into honey cells, space opens up.
- ✦ The bees will start moving honey around in the hive to be more efficient for their use.
- ✦ What that means to you is that if you have a full super of capped honey and you don't get it in time, you may need to go through frame by frame before pulling the frames to extract because there could be pollen and maybe brood in it now.

HONEY EXTRACTING

- ✦ We'll be covering more on that next week including removing frames, uncapping, and extracting.

SWARM/HOT/OR ROBBING?

- ✦ If you see this, how do you know if it's a swarm getting ready to leave, hot bees, or a robbing situation?



SWARM/HOT/OR ROBBING?

- ✦ Swarms generally happen early in the day - have you seen swarm prep?
- ✦ Hot bees generally bearded late in the day into early evening when the humidity is going up
- ✦ Robbing will include fighting and dead bees and louder than usual behavior

HOT BEES AND BEARDING

- ✦ During the hot part of the year, you need to make sure the bees have a good water source



HOT BEES AND BEARDING

- ✦ They will use the water to help cool the hive (in addition to using it to thin the honey)
- ✦ They will fan their wings to create air flow
- ✦ Bees leave to make more room and lower the temp - hanging out on the front porch until night time.
- ✦ This is most common later in the day

HOT BEES

- ✦ Screened bottom boards and cracked out covers can help with air flow



NECTAR DEARTH AND ROBBING

- ✦ When there's not a lot of food coming in, bees will become opportunistic.
- ✦ If a hive is small and vulnerable or even large and not healthy, other bees will come take the honey.
- ✦ Once the big nectar flow slows, consider reducing the entrance or adding robbing screens.

ENTRANCE REDUCERS



ROBBING SCREENS



ROBBING

- ✦ Don't use external feeders
- ✦ Feed internally later in afternoon/evening

WHAT DOES ROBBING LOOK LIKE?

- ✦ Lots of bees approaching and leaving hive. Incoming bees will not ever have pollen and will be zigzagging back and forth.
- ✦ They will be checking for cracks or other entrances into the hive.
- ✦ There will be fighting going on.
- ✦ There will be dead bees on the landing board or in front of the hive.

ROBBING

- ✦ Some bees may look black and shiny. They are losing their hair in the fight!
- ✦ It'll be louder than normal



WHAT TO DO TO STOP OR SLOW IT DOWN

- ✦ Stuff grass in entrance (close entrance)
- ✦ Wrap a wet cloth around the hive
- ✦ Vicks Vapor Rub near entrance

WHAT IF YOU AREN'T THERE?

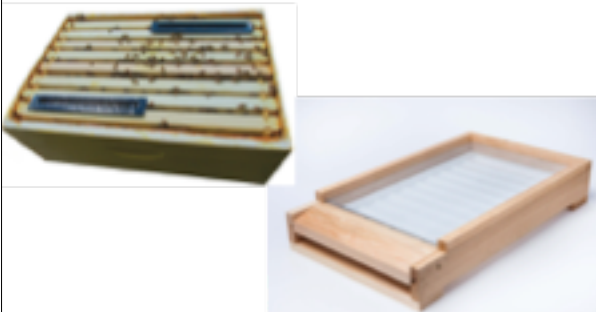
- ✦ Dead bees on ground and landing board
- ✦ Very few or no bees in hive
- ✦ Honey frames stripped clean and lots of wax fragments visible
- ✦ Robber bees can decimate a hive in about 2 hours

MONITORING FOR PROBLEMS

- ✦ Sugar shakes to monitor for mite load
- ✦ Treat as needed but be timely — this is a time where a week can be the difference between saving and losing the hive
- ✦ Sugar shake again after treating to make sure the load is in safe range
- ✦ Select treatment that is appropriate for time of year

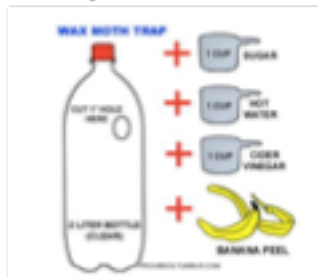
PEST CONTROL

- ✦ Small Hive Beetle traps



PEST CONTROL

- ✦ Wax Moth Traps



PEST CONTROL

- ✦ Ant Control
 - ✦ Stand legs in water/oil (if legs)
 - ✦ Cinnamon around edge of inner cover if small ants
 - ✦ Grits on inner cover if big ants

MONITORING FOR PROBLEMS

- ✦ Remove equipment if necessary. If bees can't easily patrol equipment, you can have problems like wax moths.
- ✦ Now is not the time to add foundation.
- ✦ Pay attention to brood patterns.
- ✦ Requeen if necessary or if your queen is getting old so there's a better chance of getting through winter and spring.

MONITORING FOR PROBLEMS

How quickly a colony recovers from problem conditions often depends on how soon you discover and address the problem

FALL MANAGEMENT (LATER SEPTEMBER/OCTOBER/EARLY NOVEMBER)

- ✦ Brood rearing goes up to prepare for winter
- ✦ Winter bees can look hairier and will have more fat
- ✦ Drones start to be removed from hives and queen stops producing new drones
- ✦ Prepare hives for winter by moving brood down and making sure there is good food above them.

FALL MANAGEMENT

- ✦ It's really important to have a good queen going into winter.
- ✦ You want strong hives going into winter, so consider combining them and keeping the best of the queens.
- ✦ Or move into wooden nuc boxes for the winter.
- ✦ Be brutal!

COMBINING HIVES - NEWSPAPER METHOD

- ✦ First determine which hive you will keep queen. Kill the other one unless it's queenless already.
- ✦ Remove the top and inner cover of the hive that will be the base of the combined hive.
- ✦ Place a sheet of newspaper over the top box so it completely covers the whole box. Some people use 2 sheets and spritz with sugar water or put a few slits in paper.

COMBINING HIVES - NEWSPAPER METHOD



COMBINING HIVES - NEWSPAPER METHOD

- ✦ Place other hive bodies on top. Leave behind bottom board, inner cover, and outer cover.
- ✦ Place base hive inner cover and outer cover on top.
- ✦ After a few days, the bees will be familiar with the other hives sent and will have chewed through the newspaper.

COMBINING HIVES - NEWSPAPER METHOD

- ✦ Once the bees are combined successfully, you can rearrange to get ready for winter.

MITES AND OTHER PESTS

- ✦ Mite check and treatment if necessary
- ✦ Continue to control Small Hive beetles and trap for Wax Moths

HIVE WEIGHT

- ✦ You want to your bees going into winter with lots of food. About 2 supers per hive plus some in the brood area.
- ✦ Feed as necessary. 1:1 and then 2:1 until temps are down below 55.
- ✦ Make sure your hives have good ventilation.
- ✦ Entrances down to smallest size
- ✦ Put wind break/northern protection in place

WINTER PROTECTION

- ✦ Make sure there is a good northern protection — trees/wind breaks/hay bales
- ✦ If you have screened bottom boards and have your hives on a raised stand, consider wrapping the stand.
- ✦ Having a screened bottom is not a problem. The problem is when air moves under the hive and pulls the warm air out.
- ✦ You can partially close off screened bottom boards.

WINTER PROTECTION



WINTER MANAGEMENT - (LATE NOVEMBER/ DECEMBER/EARLY JANUARY)

- ✦ Check hive weights
- ✦ Add fondant/sugar/sugar candy/winter patties/pollen patties as needed.
- ✦ Clean up and prepare equipment for spring
- ✦ Make plans for ordering nucs/packages/queens
- ✦ Catch up on your reading

NEXT WEEK - LAST CLASS

- ✦ Products of the Hive
 - ✦ Honey processing & labeling
 - ✦ Wax
 - ✦ Propolis
 - ✦ Pollen
 - ✦ Apitherapy
