



The Managed Mentoring Program on getting started in beekeeping.

Managed Mentoring



Managed Mentoring

Propping Up Weak Hives

Lesson | Addressing Weak Hives



What is Covered in this Module

What is a Weak Hive

Recognizing the Problem

Assessments

Corrective Actions

No Alarmist Situations



Manifestation of Problems

□ Weak Hive Problems Rarely are Acute

- *You probably knew; or can sense the colony predicament*
 - A key to solutioning this is to see it as it unfolds
 - Early detection of a colony that is not performing provides more opportunity to find a corrective Action
 - Learning what good looks like helps to illuminate a colony that is not performing
- *If you sense your hive is not quite right; act*
 - Do your own assessment or seek out some guidance by describing what you see to a knowledgeable beekeeper – bring it to an online meeting or email for some guidance



Defining a Weak Hive

- It is a *colony* that is not prepared to overwinter
 - *If a colony is not on a trajectory to overwinter, it is weak*
 - It is a significant amount of work for a colony to hold on in winter
 - They must withstand cold temperatures, sometimes brutally cold
 - They are both quiescent and working hard 24x7
 - They must maintain enough heat to survive, and to maintain the ability to move to food resources
 - They must hold enough healthy bees to do the job until the nectar flow of spring
 - They must maintain state until the weather breaks
 - They are weak if they do not have: Healthy Bees, 60-80 lbs of stores, and proper comb



Propping Up Weak Hives

- The best way to attack the problem is...
 - *Address each element they need and work them while there is time*
 - Healthy Bees: This is a matter of good nutrition and varroa mite management
 - Food Stores: Late Summer and early fall is the time to feed if hives are light
 - Food in the form of sugar solution helps stimulate the bees, and when provided in abundance, results in food storage
 - Honeycomb: This is a tough problem to solve for in fall.
 - Bees will build comb in the latter part of the year, but it is a slow go, and not very viable on plastic foundation (especially if it has not been prepped well).
 - Feeding bees along with temperature and rearing new bees is the way to a solution



The Queen as part of the Equation

□ The queen plays a vital role

- *A well functioning queen makes the colony flush with good genetics and volume*
 - When a queen is well mated, she bolsters the population in the colony with a well-rounded sample of bees that do the important work the colony requires
 - Colonies with substandard queens underperform for several reasons and if your colony is simply limping along, it is possible that a queen replacement with a quality queen will turn things around.
 - When a queen is well mated, and is supported with the right resources, she will produce an adequate population of bees to perform the tasks for overwintering



Colony Assessment

- What does the colony have to offer?
 - *Assess the colony state*
 - Did you get to 20 frames (30 if a medium) of comb built out in spring?
 - Are there a reasonable quantity of bees?
 - Bees should be on all frames and on the top bars when you check the boxes. The boxes should look reasonably populated as you look down into the seams.
 - Are there food stores?
 - Do the tops of the brood frames have honey in the corners? Are there rings of pollen and pollen frames near the brood area?
 - Is there brood in progress and new bees being produced?

This is where looking and learning in spring/summer pays off as you can use what you learned to make the assessments against what good looked like



Colony Assessment

□ What is the colony doing?

- *Is the colony storing food for winter?*
- *Is the queen producing (late summer, early fall) winter bees?*
- *Are there any signs of trouble?*
 - Foul looking brood in development, bees with disease (say deformed wings), bees trembling on the ground, spotty brood patterns?
- *Does the colony look like they are on a trajectory to be 60 to 80 pounds, and stocked with enough bees to overwinter?*



If the answer was no...

- ❑ Too few bees: Feed and or Prop up
- ❑ Too light: Feed
- ❑ Sick bees: Monitor, Treat, Monitor
- ❑ Poor Brood: Requeen

Let's tackle these things one by one



Low Population

1. Too few bees: Feed and or Prop up
2. Too light: Feed
3. Sick bees: Monitor, Treat, Monitor
4. Poor Brood: Requeen

□ To Few Bees

- *Stimulate brood rearing and support the bees by feeding them a 1:1 ratio of sugar syrup.*
- *Provide a frame of brood from another hive to bolster the population*
 - We recommend you keep two hives. This is one instance where that pays off
 - If one colony is doing well, and can afford to give up some of its future population, you could take a frame of developing brood (sans queen of course) and the nurse bees and place it in the weak hive to give it a boost.
- *Consider pollen supplements (next slide)*

Some advocated that a thinner syrup ratio actually works better. This is personal preference as to if you want to do something like 1.25 to .75 water to sugar, but universally when bees are fed, they are either fed 1:1 to 2:1 to keep it simple



Pollen Supplements

□ Necessary, probably not – Harmful, no...

*Low pollen in the hive?
You can consider
pollen supplements*

- *Most areas of the Mid-Atlantic, and other parts of the US have more than adequate pollen stores for bees to maintain state*
 - Beekeepers often only report pollen problems when bees are moved into mono crops for pollination. It is not common for a hobbyist to encounter issues.
- *Would it hurt to buy and place a pollen patty on the hive*
 - No – and they are relatively inexpensive.
 - Follow the earlier guidance from previous lessons – buy something from a bee catalog or make your own. Use sparingly (size of a deck of cards) and if the bees do not consume what you give them, take it off and discard it.



Not Enough Stores

□ To light: Feed

- *Stimulate storage by feeding a 2:1 sugar solution*

- This works especially well if there is a fall flow and with pollen coming in.
- The 2:1 ratio is beneficial for storage as it is denser with sugar and requires less work to convert to food in the cells due to lower water concentration.
 - In any vestiges of hot and humid days, more moisture is harder for the bees to deal with and it is best to give them less water to process
- In contrast to 1:1 solutions which bees would consume and consider food, bees see the heavier syrup as reserves and are more apt to place it for storage, building up bulk in the hive.

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Sick Bees

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□ Sick bees: Monitor, Treat, Monitor

- *If your bees have some form of problem, it is like a varroa infestation*
 - Monitor your bees using an alcohol wash and learn what your mite thresholds are
 - If the problem is a high varroa mite population, use the Honey Bee Health Coalition Varroa Management Guide to design and implement a treatment regime
 - When the treatment is finished, monitor the mites to ensure the threshold is under control
 - If it is something else, contact your local association for some guidance or come to one of our online sessions to discuss



Sick Bees

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□ Sick bees: Medicate

- *In some instances, for beekeeping, medications are warranted*
 - There are a few disease conditions where medications applied will correct the problems.
 - This is a difficult item to provide guidance on given administration of medications to a colony now require a veterinarian for some compounds
 - If you have a condition that has persisted and will not go away with proper nutrition, contact us for guidance
 - If there is truly a problem that requires medication, it is probably best to have someone come to your colony, assess it, and then plan a course of action



Poor Population / Brood Production

1. Too few bees: Feed and or Prop up
2. Too light: Feed
3. Sick bees: Monitor, Treat, Monitor
4. Poor Brood: Requeen

□ Poor Brood: Requeen

- *When the brood pattern is not well formed, assess if you need to requeen*
 - This requires a bit more assessment.
 - Do note that some brood patterns do not look good during a dearth, and this is not a reason to requeen. It might be varroa mites, or it might be the queen.
 - Ensure you have varroa under control, and feed your bees for a period of a few weeks.
 - If after that timeframe the queen does not kick in and start with building winter bees, consult with your local association or come to an online session to discuss.
 - Note Queens will not necessarily be as prolific in fall, even with feeding, as they are in the abundance of spring. If in doubt consult with us or your local association



Poor Comb

- If you have frames that are not built out
 - *There is not too much you can do to get the bees to build comb.*
 - They might, with feeding, build some comb, but it is an iffy proposition
 - *Compact – Move – Borrow*
 - If you have a few frames not well formed, and no resolution, move them to the outside in the bottom box and correct the situation in the spring
 - You might consider, if you have some friends in beekeeping, inquiring if someone has any spare frames of clean drawn comb for you to place in your hive to make up for the deficit
 - If the situation is dire – consider the options on the next slide



Compact or Procure

□ Compact to a single

- *If you do not have a good cache of honeycomb in your box...*
 - Sometimes the best answer is to compact the bees to one box with 10 well formed frames of honeycomb.
 - If you are in this situation, contact us for guidance.

□ Buy ready built comb?

- *The marketplace now offers ready built comb*
 - The Better Bee Company sells frames of full drawn comb called BetterComb®
 - You might do some research and consider if this is an option you want to use



A Word of Support

□ Most first year colonies do not get into trouble

- *First year queens, when well mated, do just fine*
 - If you had some problem with the queen, it is likely that you did not get this far into your colony management with out recognizing it and finding the need for a corrective action
- *If your colony seems a little off – it is usually corrected with food*
 - Feeding your bees stimulates brood rearing, storage, and bolsters things when there is a gap in your space from nature
 - If in doubt, simply feed your bees. Any sense of feeding should demonstrate an improvement in colony makeup as you pass into fall and prepare for winter



Closing Comments

- **Customary Close**
 - Where we stand, where we are going...
 - *This module closes out suggestions for propping up weak hives*
 - *Our next topic moves to why you would want to collapse hives down in preparation for winter*
 - Equipment (Comb) Storage in Winter
 - Dealing with Waxmoth
 - And Winterizing your hives



Q&A

- **What Questions did we not anticipate?**
 - If you have feedback, you can leave a constructive comment; but be nice.
 - You could also send an email to comments@managedmentoring.com
 - *Please refer to this video in the subject so we know what the reference is.*

