

Stahlman Beekeeping Notes for 2022

Mite treatment – hive inspections



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I have been spending a lot of time inside during these hot summer days.

On occasions, I am invited to participate in looking at a hive and sometimes trying to help



someone with a question. I have found it somewhat hard to get excited about working in summer weather conditions. Each hive needs at least a look to make sure everything seems to be okay. I don't recommend spending a lot of time with each hive.

However, problems are showing up with rapid decline in bee populations. I generally open a hive and pull only enough frames to see a good brood pattern. Brood indicates a queen. Shotgun brood raises my level of alarm. A hive can have a lot of bees but at this season one will not see much in the way of drone brood.

This is a photo of my good friend, Cary Orange working his bees in

mid-after noon on a very hot afternoon. Notice the bees in the air as the sun lit up their golden presence. Sometimes we as beekeepers are forced to take a hive down to the bottom board. This was the case in this hive. It had two medium supers above a double brood chamber. Both medium honey supers had been extracted. They were put back on the hive to allow the bees to clean up the wet supers. Cary was also feeding this hive with a top feeder. I have been advising beekeepers to feed bees in this time of high heat, high honey consumption and almost no honey flow. This hive had a large population of bees. Cary was placing strips for mite control in his hive.

The hive check also was used to size up the brood patterns in his hives as well as the amount of stores in the hives. Cary is in his second year of keeping bees. He has raised several queens and if a queen issue came up, he had a replacement queen ready.

The bees had stored some sugar stores in one of the medium supers and it was time to consider taking the extra super off the hive. We didn't see any hive beetles when he took off the top cover and started removing the honey supers. If a hive has small hive beetles, they can usually be found running on the inner cover or in the top feeder.

There was evidence of brood in the medium super above the brood chamber. Keep in mind that Apivar strips need to be applied inside the brood area – instructions indicate the proper placement as: a minimum distance of two frames between strips. The top deep brood chamber had capped brood, young larva, and eggs. But because this hive was so strong, it was decided to examine the bottom brood box as well. The bottom brood box was not being used by the bees. The bees were not storing honey in it and the queen was not laying eggs in it.

There has been a lot of information from Wake County beekeepers about getting hives ready for winter. Much of the information is about consolidating room within a hive. This picture shows Cary removing the empty deep super.

The hive was put back together. It now has Varroa mite treatment, a large population of bees, no evidence of small hive beetles and it is being fed with a sugar/water ratio on 1 part sugar to 2 parts water. However, as beekeepers we know we must always be on guard to make sure the next visit to this hive gives us the same satisfaction that is now felt.

How about taking supers off a hive if they are not needed?

I have always believed in putting empty supers back on my hives to keep wax moth from damaging comb. I am rethinking that practice. A lot of room for small hive beetles to roam about a hive interior is not good!

I also had an opportunity to hear Jennifer Keller – Apiculture Technician at N C. State speak about small hive beetles. I am beginning to see small hive beetle damage in my bees this year. And I am beginning to give a lot of thought about watching my bees more carefully than in the past. I have seen that lack of inspecting hives every two weeks is an issue. Hives are being robbed and hive beetles are taking over. The time it takes for this is so quick, it is a shock for me to come upon a hive that seemed okay just days ago. We have had a hot continuous summer with days in the 90's. Bees are short of food. They are going to rob any hive that cannot defend itself. Feeding a hive only attracts those robbing bees. Thus: If a beekeeper is trying to save a weak hive by feeding it, expect the robber bees to attack it. They will! Or expect small hive beetles to show up in the hive and again the result is not good for the bees in the hive. The old adage is take your bee losses in the fall. One might be much better taking weak hives & combine them with stronger hives. **(However -- Not if they**

are weak because of disease or large Varroa Mite count or Small hive beetles!) This would and could reduce the chance for a good hive to survive.

How to feed bees is now an issue. My advice is to use inside feeders – division board or top feeders rather than entrance feeders. Install robbing screens or install a winter entrance reducer. Also feed in the evening when the sun is going down.

I was asked yesterday about when do robber bees do the damage to a hive. If you see damage in the late afternoon, it is what I would consider too late to do anything! It is surprising how fast a hive with honey can be cleaned out. Robbing continues until there is nothing left.

The best defense is strong hives of bees. We will see declining bee populations in our hives. That is a normal process and is part of the life cycle of honey bee colonies. But the beekeeper must know what the mite levels are because any mite population is growing now! It is going to be very hard to save a hive with a high mite count. As the count-down to winter continues, no action is certain to result in a hive's failure.

Beekeepers need to think of treating bees much like the care required for pets. Oxalic acid is another treatment that beekeepers might consider but it is best used in the fall when brood is not present. Formic Pro[®] is another product for treating a hive for mites but with the high temperatures now, it should not be used in a hive of bees.

IPM is a word often seen in beekeeping literature. Insect Pest Management is developing a plan to treat one's bees for Varroa mites and I include small hive beetles into the plan as well.

A great resource for beekeepers is to visit Randy Oliver's web site: Scientific Beekeeping <https://scientificbeekeeping.com>.

- My observations for this week: bees have been chewing holes in foundation not drawn out into cells.
- Bee populations have moved up in hives. If queen excluders have not been used the queen could be anywhere in a hive.
- Here in the Raleigh, North Carolina area, bees can actually be starving.

The Raleigh area is a bit different from other areas in the United States where I have kept bees. There is not much agriculture in Wake County. Once trees no longer provide forage for bees there is little for bees to gather. They may do well if hives are established near some of the parks with open fields and along rivers. However, the city and outlying urban area have high density populations. I saw a TV news report that indicated Wake County has lost 20% of its agriculture land in the past 10 years. Keeping bees becomes more challenging as foraging land disappears.