

Greetings beekeepers,

Joe is out of town and I thought that I would help out with this month's newsletter. I have three subjects that are on the list to discuss with the group. The first is a bit of information that comes out of Florida dealing with Colony Collapse Disorder or CCD. Lots of this stuff in the news lately even to the point of statements that we will all starve to death within the next 4 years. It seems that lately whenever I mention beekeeping, folks want to know about what is happening with all the bees dying. I pulled this off the discussion list BEE-L on the internet. For those who are interested it came in about May 5<sup>th</sup>.

An interesting experiment is in progress in Florida by the USDA-ARS & Dave Hackenberg. 400 hives; 100 hives in each of four category.

1. CCD dead-out untreated
2. CCD dead out brood comb irradiated
3. CCD dead out honey supers (no brood)
4. CCD dead out brood boxes fumigated as I posted with acetic acid.

All hives had new packages put in from the same supplier.

Irradiated & acetic acid doing fine. ( 2 & 4)

Problems in group 1 & 3 I have been told. I am really surprised of the trouble in group 3.

A quote from Dave Hackenberg on the Bee Culture "Catch the Buzz" site: " His initial observation was that the differences between treated and untreated colonies was day & night."

I remind the list that these hives are about two months ahead of our Midwest hives depending on when the project was started. Many, many beekeepers have dumped packages into CCD deadouts. I wonder what the next couple months will bring for those beekeepers? **End of Letter**

From Steve:

The interesting thing about this study is that it seems to point toward a biological cause to this problem. Exactly what it is, is still unknown. Also, if it turns out to indeed be a biological agent the method of transmission still has to be determined.

In the previous article, I mentioned biological agents able to be transmitted to bees. One of those methods that have come into view is the role Varroa mites play in the passing of various viruses to the bee that the mite feeds upon. I want to make sure that folks understand that I am not saying that the varroa mite is responsible for the collapse of hives seen around the country. What I am saying is that in addition of the parasitic action of the mite feeding on our bees it is quite possible that the mites are allowing viruses to infect the bees that are fed upon. It is thought that it is a combination of mites and viruses that lead to the death of a colony when it is overrun with varroa.

Even without the virus aspect, a colony is less likely to produce a good crop if it is under a high parasitic load. Varroa mites are well established in almost all parts of the country and have just recently been reported on the Hawaiian island of Oahu.

Packaged bees that travel to Alaska have mites in them even though they come from inspected apiaries and are thought to be free of mites. It just seems logical that somewhere in a shipment of 14,100,000 bees that were brought into the south-central area of Alaska this year that somewhere mixed with them were a few mites. These mites will not present any problems this year. Their populations are too low to have any significant impact on the production of the colony. The colony might even winter well with numbers this low. Rest assured, that eventually the mites will breed in the colony and increase in numbers to the point that the hive will be under stress, even to the point of not being able to produce a crop. This happens during the second summer of a colony.

Getting rid of mites is quite a problem for Alaska beekeepers. There have been a number of methods that have been brought out in the beekeepers meetings and this last week I have run across a method written about in the May issue of the *American Bee Journal* that made a lot of sense.

This proposed method of control combines an easy method of trapping mites in drone brood and an efficient method of dusting with powdered sugar that does not require pulling all of the frames to do so. I am only going to summarize the article in this newsletter so those that want the straight scoop with all the data can look over the article in the May issue of ABJ.

Drone trapping is accomplished by using a special deep frame that is made of a standard frame with an extra top bar. The top bar ends are cut so that it will fit inside the frame under the original top bar a couple of inches lower. This second top bar is turned upside down so that the two grooves face each other and a piece of standard foundation is placed between the two

bars. This is foundation that you have cut into a strip that is about 2 ½ inches wide. The bees will draw out drone comb in the empty space. Since varroa have a great attraction to breeding in drone comb by about 10 to 1 over worker comb many of the reproductive females will be here. This comb is cut out when it is capped and discarded.

This special frame is inserted into the brood nest center during the time of year that the bees are likely to make drones. For us this is still a few weeks away. Don't split a brood nest when the weather is too cold or the bees will not be able to keep everything warm enough with the empty space in the middle.

The second method of controlling Varroa mites is using powdered sugar in an easy to apply method. The amount that is used is one cup per brood chamber. A screen of 1/8 inch mesh hardware cloth is placed over the top bars after the bees are smoked down. A cup of sugar is sprinkled over the wire mesh and brushed down with a bee brush through the screen. The screen is then lifted and the remaining sugar is brushed into the spaces between frames.

It turns out that the mites can't hang onto a powdery bee and fall through the hive onto the bottom board. Here a screened board might be helpful to let them keep on falling. There is no mention in the article about cleaning off the bottom board although it seems logical since most of the mites fall off within the first couple of hours. There was a mention of potential robbing if sugar is available during a nectar dearth.

The author of this article claims that varroa control takes him about 15 seconds per hive and costs about thirty cents.

### **Early summer management**

Now that it is the middle of May, I would expect that most everybody's hives have stopped taking sugar water. This may not be true for a few of us especially for those who are still drawing foundation out into comb. I have always noticed that bees will largely ignore syrup and take to the flowers if there is any nectar available. It is at this time of year that you might want to take note of how much is stored in the hive as well. If there is lot of sugar stored and they are still taking in large quantities it might be time to restrict access to the feed by covering up all but a few holes. As the season progresses continue to check how much they have in storage so that it does not wind up in your honey crop.

The birches are all leafed out now and I have noticed that the bees are working up there as well. I am sure that they are bringing in pollen from

them because the color matches what can be shaken out of the catkins hanging from the trees. Dandelions will be blooming next and that color is easy to spot with it being so orange.

For those who are using nut jars for feeders, this is the time of year that if you let the jar go dry they will plug the holes up with wax and Propolis. I have never had them plug a wet feeder only an empty one so keep an eye on it.

I thought that I would take a moment to mention adding a second super. I think that the weather is plenty warm enough to do that and the bees will move right in. Extra space will help the nest expand, provide room for the queen to lay and keep the bees from becoming too crowded. Remember that the bees drawing out foundation into comb need to be finished with the first box before you add a second one. Most beekeepers agree that the bees should be working on 8 frames before you add another box of 10 frames. Keep those frames close together. The tighter they are the more chance you have that the comb will be drawn straight. One other thing that should be mentioned is that empty frames (foundation) over a queen excluder is the same thing as a roof. The bees simply won't go through it to do any work. If you are going to use excluders during the year I would let the bees work first and then place the excluder. This will give the bees some reason to go through the excluder because there is something of value on both sides of it.

You should start to notice the development of a few drones soon. The weather is warmer and the bees will be thinking ahead to raising a new queen. Drones are important to them and will be raised *before* you will see queen cells under construction. When you see drones start checking weekly for swarm cell activity. Add plenty of room, make top entrances, reverse brood boxes, and do the normal swarm prevention dances near the hive at night when all of the bees are sleeping (singing is optional). I always cut out queen cells when I find them. If I find one that has been capped I try to find my queen. A swarm will leave the hive after the new queen cell is capped but before it hatches. It is nice to know that she is still there. Generally the first swarms that happen around here is about the middle of June, which means that queen cells are raised near the first of the month and on throughout the summer.