Stahlman beekeeping notes for 2021

Issue # 34 Re-queening a Nasty Queen Hive

I have been working with several beekeepers that own hives with very aggressive queens.

There is no reason to put up with aggressive bees. Those who know me, know that I work my bees usually without a bee veil. It is very difficult for me to work and see thru a bee veil and especially hard to handle queens while wearing gloves. Thus, I have over the years gone into the bee yard without either. I am comfortable with this! I do not recommend it to others. I always have my bee gear available if needed.

I do not tolerate aggressive bee hives. I have heard it said, "Mean bees gather more honey!" That may be true but if that is one's position, it will require a good investment in protective bee equipment.

Look at the bees around the beekeeper in this photo – there are a number of angry bees in the air around the beekeeper. Bee veils are required as well as good protective clothing when you encounter such a hive.

If I can say, "I have a hive that is just plain mean! They follow me to the house each time I close the hive and sting the crap out of visitors. Then I don't dare go to the hive without a bee veil!"

This problem can be corrected in several ways.

In some cases, such as Africanized bees, the bees in the hive must be killed! The easiest way I have seen is to enclose the hive – if possible – in a very large bag just after dark. Seal the bag so bees can not get out. If the outside air temperatures are high enough, the bees will over heat and die! This does not contaminate the comb (which can be used again). Light plastic sheeting can also be used – it can be found in most paint stores.

Some literature suggests the use of soap in water sprayed on the bees and this would work with an Africanize swarm for example.

To save the hive as is being done in the photo, the queen must be found and killed.

I know it is hard for beekeepers to think about killing a queen. Not all aggressive hive situations are the fault of the queen and thus, the beekeeper needs to give some thoughts to what is causing the bees to be aggressive.

Several factors about the temperament of honey bees:

- **External conditions can cause a hive to be aggressive. Weather could be a factor as well as disturbances to the hive. Sometimes the season of the year will cause bees to be more aggressive --- robbing, drought, high heat conditions as examples.**
- **Genetics – The honey bee has developed to defend its hive. Some races of bees are very aggressive while others are quite gentle. The aggressive genes are passed from one generation to another. Thus, one can expect Africanized honey bees to be very aggressive. However, aggressive traits can show up in those bees commonly found in our bee hives.**
- **Many environmental factors influence stinging behavior:**
    1. **Larger bee populations in a hive**
    2. **The time of day in which a beekeeper works a hive**
    3. **Crushing bees by careless handling of the hive**
    4. **Quick movements and dark colored clothing**
    5. **And most common – spending too much time working in the hive.**

For most of us, we just cannot tolerate aggressive behavior from a hive of bees--Not for ourselves or for our neighbors. A hive of this sort requires more effort than you will use for almost any other bee hive operation.

Finding the queen in a strong aggressive hive of bees is a challenge. But there are ways to do it.

The first step is to make sure you have a new queen on hand before you set about killing the old queen. If the old queen is removed and you need to wait for a new queen, the bees in the old hive will certainly try to raise a new queen to replace her. This would result in the new queen not being accepted by the bees in the hive and the new queen they raise will likely have the same genetic disposition as the queen you kill.

Working with a mean hive of bees is not fun! Working with a very strong mean hive of bees is really not fun!

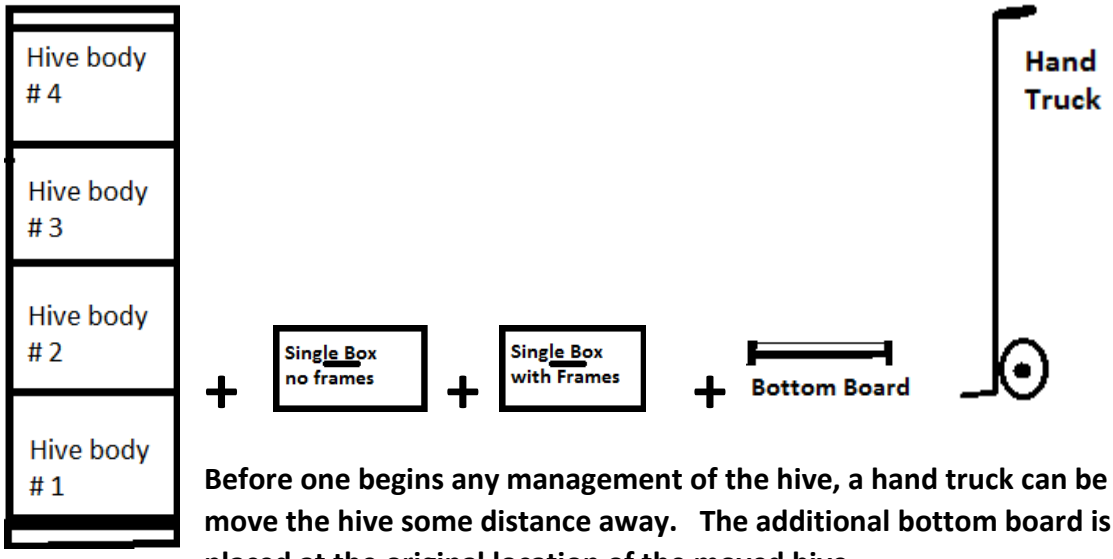
The larger the hive -- the more work will be required. So, let's begin with the worse-case I can imagine! The hive is four boxes high with 10 frames in each box. That "queen" could be on any one of the 40 frames in it.

We know from studying honey bee biology, that older bees are more likely to sting than young bees. We also know that bees return from foraging flights to the hive they leave. Or most of them do anyway. When you open their hive, you are at the epicenter of their activity.

The following pictures/diagrams show how I would go about finding the mean queen without being in the epicenter of all those angry bees. This is a time consuming management technique.

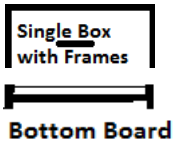
First step: <u>Move the mean hive</u> from its current location to a location 20 or more feet away. All foraging bees will return to the old hive stand – thus eliminating a number of bees that could attack a person working the hive!

Equipment you will need to carry out the inspection of the hive and avoid mean bees from attacking you.



Before one begins any management of the hive, a hand truck can be used to move the hive some distance away. The additional bottom board is then placed at the original location of the moved hive.

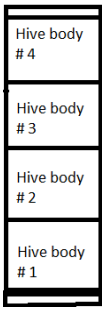
A single box with frames [prefer drawn comb but foundation would work] is placed on the bottom board.



One reason for using drawn comb is the foraging bees returning to the hive will have a place to store pollen and nectar and a place to congregate rather than flying around trying to locate the moved hive.

Step Two: Manipulation of "The Hive" -- "The Hive" is now in a location 20 or so feet from the old location.

Fact -- young bees are not as aggressive as older bees. Why not take advantage of this biological nature of bees in the hive?

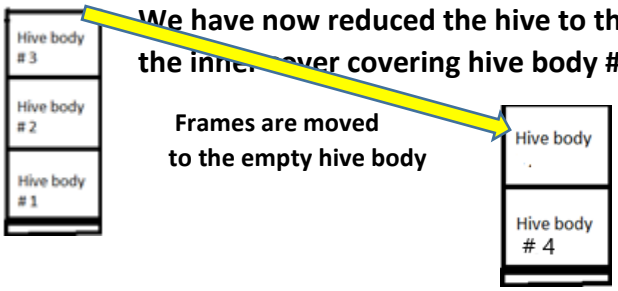


Wait 10 minutes or so to allow the bees flying from the hive to return to the old site. After they settle down, you can begin to work with the moved hive. If foraging bees are returning to this new location, the hive will need to be moved a little further away.

During this wait time, you can get the equipment to help in the search. You will need one empty box the same depth as your frames. You might select some shady spot to do the inspection for the queen if during a hot summer day. Use a limited amount of smoke because if one uses a lot of smoke, it will cause bees to run and this will make it much harder to find the queen.

The procedure: Remove the top cover and set it top down on the ground. This will allow some space below the empty box placed on it. The inner cover can also be placed near-by on the ground.

Take the top box #4 off the hive and set it on the top cover. Most likely the queen will not be in the top box but you can come back to it if she is not found in the other three boxes. We want to work smart and fast. Place the inner cover over this box to prevent robbing.



We have now reduced the hive to three supers. Place an empty hive body above the inner cover covering hive body #4.

Each frame taken from hive body # 3 is inspected for the queen. This step is then repeated until all boxes and frames have been checked for the queen.

In the worst case situation (The queen is not found), one can reverse the entire operation by using the empty box on the bottom board to receive the frames, starting again with the frames being returned to box #1. Hopefully the queen will be found before one has to examine all 40 frames in the hive.

All this work is done because it reduces the aggressive bees behavior at the original hive location.

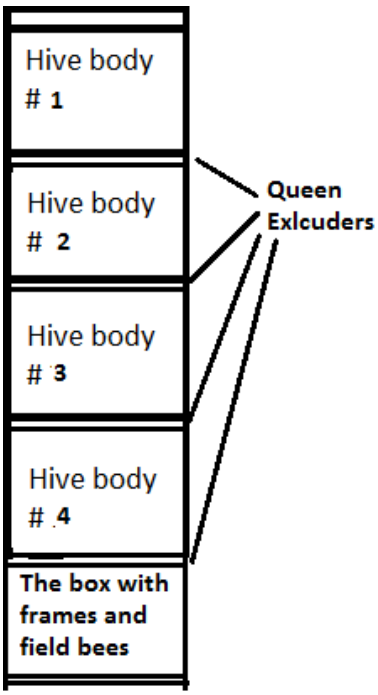
The queen will most likely be in an area of the hive where brood is located, especially where you see eggs and young larva. Begin to remove frames from box # 3 on the hive – starting at one side – one frame at a time. Examine each frame carefully checking not only both sides but the top and bottom as well. When you are satisfied you have not seen the queen, put that frame in the empty box.

Repeat the operation frame by frame until the queen is found or all frames have been examined and moved to the empty box.

I would hope that the queen is found but let us assume that she is not!

We still have hive box #4 to check. ***Worst case – the queen is not found. Now what?***

To continue this process, one will need queen excluders for the following operation. The bees and boxes are returned to the original hive location.



If I put a queen excluder on the box left at the original site, I can place the empty box without frames above it. I can remove the frames from the hive boxes sitting on the top cover – check each frame again very carefully and return these frames to the box above the queen excluder at the original hive location. A second queen excluder can be placed above the box with moved frames and an empty box placed above it. Repeat the process. Queen excluders are wonderful tools when used this way.

Wow, a lot of work. But if you want a new queen to be successfully introduced to the mean hive you must find the old queen!

If the queen is not found, she is now confined to one of the boxes above the queen excluders. If we wait four days, we can return to the hive, remove one box at a time (carry that box some distance away if the bees are nasty) and check for eggs. The box with eggs has the queen. When the old queen is found place her in a queen cage or kill her. Remove all queen excluders. A new queen can now be introduced to the "mean hive".

I am also asked how I find queens on a frame. It is not luck. I like to use marked queens in my hives.

When I remove frames from a hive, I like to have the sun to my back so I can see the bees on the frame. A laying queen is usually working in the brood area of the hive. I try not to use

<u>much smoke when removing frames.</u> If heavy smoke is used, it causes bees to run. When bees are running, one might just as well close up the hive and wait for a better time to find the queen.

The arrows in the picture below indicate my eye movement as I examine a frame for the queen. I start looking at the frame by watching for movement of bees. I start at the top of the frame and check the bees near the top bar, end bars and bottom bar before I move my attention to the center of the frame. This is a frame with a good chance that the queen is on it. If not, I turn the frame over and check the other side before pulling another frame.