STAHLMAN BEEKEEPING NOTES FOR 2025'

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Troubles Ahead - A hive without a queen

i live in [redacted] and my 53 day old hive today is failing. Long story short, i am queenless in my hive and i have hive beetle. I just had [redacted], from State of [redacted], apiary inspector come by to inspect my hive to day. And he said i may be able to save the hive if i get a Queen to go in there. If they will accept her.

I am looking for a Queen to go in hive. And i did install a entrance reducer today to help the hive keep out unwanted pest. I should have used the reducer from the get go. But i think it would have saved me some head ache. Where i bought my bees less than 60 day . [redacted]

So any suggestions where i might buy a local Queen bee would be appreciated.

Thanks in advance.

This is an actual post in a beekeeping web site posted on June 7th of this year.

Those new to beekeeping face many issues and this one brings up some points I would like to make.

A post like this got many responses. A number of recommendations were sent to the person posting this - some good and some bad. I am assuming this is a new beekeeper and he/she was seeking help from more experienced beekeepers. Unfortunately, the person or business that sold the bees was not available to help get a queen.
This person also points out this hive has small hive beetles.

It is clear that this beekeeper wants to save the colony of bees.

I am not sure why a few are so negative when it comes to giving advice. Beekeepers must learn by facing failure and all of us must realize that we do not walk on water.

All this beekeeper wanted was to find a queen. The bee inspector evidently thought that the hive had bees enough to be requeened successfully. Again, we do not know exactly what advice the bee inspector provided but I would guess it was positive or the beekeeper would not be seeking a new queen.

Colonies can go queen-less for a number of reasons.

- Old queens die – many sources point out a queen bee can live for up to 5 years.
- Her own bees may replace her and raise a new queen (supersedure). Usually without a brood break.
- She could have been crushed between frames while the hive was inspected. The bees would set about building queen cells (the emergency queen replacement response).
- And the queen may have met up with some misfortune (disease, health issue, non-acceptance when introduced to the bees).

The replacement process is not automatic because any new virgin queen raised by bees faces survival issues as well. Should a virgin queen be killed on a mating flight, the bees would have no young larvae to feed to get a replacement and that would lead to the down fall of the colony.

The bee inspector would have advised that this person buy a queen immediately. The reason is based on the life expectancy of the worker bees in the colony. If a new queen is introduced it will take at least 21 days for newly emerged bees to begin to replace the old worker bees in the colony. Any colony without a queen during this time of year will have a brood break. During that time bee population declines because old adult bees die. Adult bees have a life expectancy during the summer of what most resources post is around 40 days.

If you read last week's article about robbing, a colony is at risk anytime it starts loosing bee population after the honey flow ends. Thus, I underlined in red the comment about the entrance reducer which most likely was a suggestion by the bee inspector.

This post indicated to me the value of a bee inspector to look at a colony of bees or better yet, have a mentor that is available near-by.

One beekeeping skill acquired over a period of time is how to identify the signs of a failing queen.

Queens do fail -- especially queens raised in early spring. Virgin queens take mating flights and successful mating requires a large drone bee population. The mating of the queen always occurs in the air and it is rare to observe the actual mating which generally occurs on warm afternoons in what is called a drone congregation area**. Keep in mind that the performance of a colony depends to a great extent on its worker bee population which is a result of the egg laying ability of the queen**.

Thus, it is not necessary to actually see the queen when inspecting a colony. If you do observe her, it does not indicate anything about the job she is doing in the hive.

Inspection of the brood in a colony will indicate if the queen is up to doing a good job of producing bees. It is now June and bee populations should be very strong. It is important to check for brood in all stages (eggs, larva, and capped brood). A double deep 10 frame colony should have brood on at least 8 or more frames with in the hive at this time of the year.

First, when the top cover and inner cover is removed, the bee population on frames without smoke should look something like this.

Even with a good population like this, no inspection is complete without pulling frames and looking at the brood pattern.

I can pretty well evaluate the job a queen is doing by pulling frames from the brood chamber.

Outside frames are usually filled with capped honey and the frames in the center of the brood chamber contain brood. A careful examination will reveal what I am looking for. The following frame is typical of a good frame of brood. Note the white larva outside the capped cells at the center of this frame. Understanding the biology of the brood cycle is important in determining if the queen is doing her job. This frame reveals a lot about what is going on within this colony of bees.

This is a frame with an outer layer of capped brood just emerging 21 days after eggs were placed in the cells. As bees emerge from cells, the queen returns to open cells and lay eggs. Note the circular pattern of the queens laying pattern and the age of brood. The center of the frame has brood capped over 9 days after eggs were laid. Just outside the capped brood area (white) larva is shown clearly. This circle of larva ranges in age from 4 to 9 days. The third circle which is hard to see is cells filled with newly laid eggs. In a short period of time this frame will look like the following picture.

Note how this frame has cycled thru the brood rearing cycle. As the bees at the center of this frame emerge from cells the queen will again start laying eggs in open cells.
Each day the queen is laying between 1,500 to 2,500 eggs. A colony with frames filled with brood is a sign that the queen is doing a good job.

This frame was taken from a colony with a queen. Note the mixture of drone cells along with worker cells on this frame. This queen is failing and should be replaced immediately. (My opinion). This is a good example of a spotty brood pattern and a failing queen.

The queen is the mother of all the bees in the colony. So goes the queen – so goes the colony!