

STAHLMAN BEEKEEPING

NOTES FOR 2023

Vol. 5 Issue # 18 About Queen Bees May 6, 2023



Handling a queen can be a bit challenging. I am right handed and thus I use the following technique to pick up a queen. When I find a queen

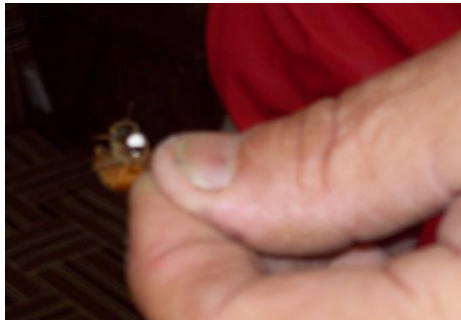
I position the frame so my right hand is free and the frame is firmly supported. I do not smoke the frame – I do not want the queen to start running on the comb.

I do not want to grab the queen's body. As she is moving away from me usually to the left side of the frame, I use my thumb and forefinger to pick up the queen by her wings. This is shown above. She will often struggle a bit but when held in this fashion, she can be handled safely.

Marking queens is a useful way to make queens easier to spot.



Unmarked queens are hard at times to find during a hive inspection. Light colored queens are easier to spot than darker colored queens.



One other advantage in marking a queen is the information one can learn about that particular queen.

Five colors are used to identify queen age. Additional information can be supplied by numbered tags as shown here.

IMPORTANT POINTS

May is a critical month for beekeepers.

1 task -- check mite levels. If not done now, the season might be a loss and winter survival questionable.

#2 Task – Hive inspections: Check queen laying patterns and replace failing queens.

#3 Task – This is honey harvest time. Get supers on hives. For those in northern states, honey flows will be beginning. For those of you in the south, think extracting, bottling the spring crop and get supers back on hives for the early summer flow.

Most new to beekeeping will already have hives and bees.

There is a difference in tasks when starting a hive with a package of bees or starting a hive with a nuc.

First, a package hive requires more work to manage. It is like bringing a baby into the family. Growth of the colony will be slow, it will require a lot of attention.

A nucleus hive on the other hand is like adopting a teenager. It will be wanting to drive the car. It is like buying shoes for a growing child. It will at times throw a fit.

Both require attention! A life style of the past will change. If they become too much – you can sell them!



Marking queens can be done in several different ways:

- A marking pen is shown here to put a white dot on the thorax of a queen. The goal is to put the paint on the queens thorax. An unsteady hand could result in getting paint in other places and in some cases injure the queen.
- A queen marking cage provides a better chance to place the color dot where it is wanted.



Queen Bee Marker Cage & Soft Plunger

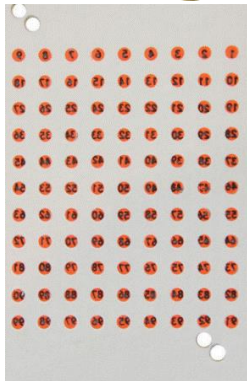
This type of queen cages can be used for capturing the queen on the face of comb. No need to pickup the queen by hand.

Once the queen begins to climb the side of the tube a plunger is inserted from the bottom and thus the plunger is raised so that the queen is located under the screen. When in

the correct position as shown, the marking pen can easily be used to place a dot of color on the thorax of a queen.



- Pens are sold in five colors (Green, Red, Yellow, White and Blue).
- Other devices are also available to trap the queen on the comb to be marked. Most are inexpensive and made of plastic. They are available from those that sell bee supplies.



It is possible to buy red number marking tags from Mann Lake.

The numbered tag system is used by those doing Artificial Insemination to track the history of A.I. queens—This is a great help in identifying genetic markers and record keeping.

Years ending in	1 or 6	Marked White		2021 or 2026
Year ending in	2 or 7	Marked Yellow		2023 or 2027
Year ending in	3 or 8	Marked Red		2023 or 2028
Year ending in	4 or 9	Marked Green		2024 or 2029
Year ending in	5 or 0	Marked Blue		2025 or 2030

The year a queen is raised is determined by colors. Not only can the queen be identified easier on comb in the hive, the color tag provides information on the age of the queen.

It can indicate a queen has been replaced when a queen is found in the hive without the mark.

Last week I included information in the side bar about finding the queen when inspecting a hive. I wrote on this topic in 2019 and I am going to repeat some of that article. Beekeepers wanting to replace a failing queen must find the old queen in the hive or face the prospect that her bees will kill the new queen. Often the queen must be replaced because she is producing very mean bees.

Mean bees

Hopefully you will never manage a hive of real defensive bees! In real bad cases, it might be necessary to kill all the bees in a hive! This is required when Africanized bees are found. Aggressive bees can cause trouble with neighbors and they take the fun out of keeping bees. One major concern in the U.S. is where are queens being raised? Africanized drones mating with our European stock can be an issue.

I can cite several stories of beekeepers being afraid to work their own bees. I am not talking about bees that sting the beekeeper on occasion. That is the nature and an important aspect of beekeeping. We wear protective gear. I am talking about bees attacking the beekeeper and anything near their hive. This includes livestock, dogs and other pets.

There are degrees of aggressiveness. The decision to deal with an aggressive hive is up to the beekeeper. One beekeeper said to me just the other day, “we will inspect that hive last today – I get stung everytime I work it!”

If a hive must be managed with a lot of smoke, full protection against stings, and bees boiling out of the hive when it is opened, the beekeeper can do something about that situation.

The solution: Find the queen and replace her with gentle stock!

- Select a day when foraging bees are flying from the hive in large numbers.
 - Make sure nearby neighbors are not working in their yards.
 - Dress for battle like conditions – a good tight bee suit will be in order as well as bee gloves. Anyone helping must also be dressed properly.
 - Make sure the smoker will not run out of fuel and is providing good smoke.
 - Have the new queen on hand ready to be introduced to the hive.
- **Beekeeping Facts to consider:**
 1. Rough handling of equipment will increase the aggressiveness of the bees.
 2. The flying bees from the hive will return to the hive location. That is a fixed location where the hive sits.
 3. Young bees are less aggressive.
 4. Too much smoke will cause bees to run – If one is going to work on finding the queen, it is best to work the hive as gentle as possible using smoke to only calm and somewhat cause bees to retreat down into the brood chamber.
 5. Queens do not fly from the hive except to swarm or mate. The queen will be present somewhere in the hive. Most likely where brood is located.

One easy method is to place queen excluders between each box on the hive. Wait five days and check each box for eggs. **The box with eggs will contain the queen.** This eliminates the need to look for the queen in other boxes on the hive.

The box with eggs can be relocated some distance from the current hive. The hive without the queen, can be requeened.

But you may say, “I have a box full of bees with the queen producing all those nasty bees!”

This box will be filled with younger less aggressive bees. Working with this box will be much more relaxing than if it were in the old location. The queen is in this box and the task is now to find and kill her. **If you still want nasty bees, one could set it on a bottom board – add a top cover and consider it a split.**

The final step is to find the queen - kill her – and return the box back to the hive.

The queen will be found on frames with brood. If the bees start running - she could be anywhere – even on the sidewalls of the hive body.

Finding the queen method:

- After this box is removed from the hive, it should be given some time to settle down. 15 minutes should be enough time but a longer wait would be okay. Many of the older bees especially those that had previously flown from the hive will return to the old hive location.
- A queen that has been laying eggs for some time will go about her business of laying eggs if the beekeeper has handled the box with care not to disrupt the bees and give them time to settle down. It is important at this time to use smoke only when necessary.
- The final step is to remove frames from the hive to find the queen. I generally begin with the first frame against the sidewall of the box. Remove that frame check it very carefully for the queen -- do not put it back into the box. I like to lean frames up against a tree or upright support if available.

The second frame is removed and checked. It is placed next to the first frame. I learned very early in my beekeeping education that queens move from light to the dark area located between the two frames.

I follow up inspecting all the other frames in the hive, removing them one by one stacking them up in sets of two frames as described above. Hopefully, the queen will be found and killed before all frames are removed from the box. But, if she hasn't been found, she will be in one of the sets of two frames usually in the dark area between two frames – assuming she is not on or in the hive box.

An interesting note: Have you ever observed how a bear goes about destroying a



bee hive to get brood and honey from the hive. The hive is knocked over and frames are scattered all over the place. The bees fly back to the hive location while the bear dines on frames

mostly free of bees.

That is pretty much the same principle used here. Unlike the bear, you can put the frames back into the box and return it to the now requeened hive.