

# STAHLMAN BEEKEEPING

## NOTES FOR 2023

### Issue # 29 August, 5 2023 Requeening A Hive

Thanks again for this Dana. I always leave a lot of honey on my hives, I really only feed in the spring if need be. Perhaps you can share your re queening process? Best to you. Andy

**Honeybees left to their natural instincts will supersede a failing queen. Some beekeepers are very surprised when they find a colony with two queens. How can that be they may ask? The simple fact is the bees raise a new queen (we call it supersedure) and for awhile the new queen and the old failing queen live in the hive together. This situation doesn't last long.**

**Hive survival depends on the new queen's ability to lay eggs and rebuild a diminished population of worker bees. Conditions have changed much in my lifetime More often than not, a hive could supersede itself successfully. But now add Mites, reduced foraging areas, and other factors (weather, small hive beetles, wax moth) hives weakened due to population loss – survival is questionable. With the “modern beekeeping era” hive management made it possible to examine frames. It was determined that beekeeping techniques could be used to manipulate the honeybee to achieve human expectations.**

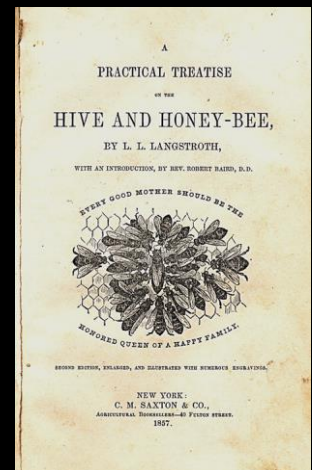
**Langstroth's book “A Practical Treatise on the Hive and Honey-Bee” by L.L. Langstroth has been followed by a multitude of books on hive management.**

**A writer of that time had this to say: “At length the true secret has been discovered, of making these most industrious, interesting, and useful of insect-communities, work in habitations both comfortable to themselves and wonderfully convenient for the aggregation, division, and rapid increase; and all this without diminishing their productive labor, or resorting to the cruel measure of destroying them” Robert Baird.**

**Thus, beekeepers had a way to inspect the brood chamber to determine if a hive had an industrious queen. The success of any colony rests on the queen!**

**As a beekeeper, I mark my queens. This gives me some control over the queen stock I keep in my hives. A marked queen is easier to find but the mark can tell me something about the queen.**

## IMPORTANT POINTS



Some facts about the relationship of worker bees and queen bees.

1. Worker bees do not tolerate strange queens inside the colony.
2. Replacing a fully functional laying queen in a normal colony is more difficult than introducing her to a hive that has been queen-less for a period of time.
3. The presence of a virgin queen or queen cell will result in worker bees rejecting an introduced queen.
4. Virgin queens are very difficult to introduce to a colony of bees.

- Queens are usually marked with a color dot placed on her thorax. Some may use a numbered tag placed on the thorax.
- This can help determine the age of the queen.
- I can tell something has changed if I find a queen in my hive without the tag. This would tell me that my marked queen has been replaced.
- Queen bees lay eggs. They usually lay a lot of them. Anytime a colony has a queen failing in her mission to populate the hive, the colony is at risk.
- Younger queens lay more eggs than an older queen! It doesn't mean one has to requeen every year. I do not replace a queen doing a good job – but I don't hesitate replacing a queen doing a poor job -- even if she is young!
- The advantage of inspecting frames gives the beekeeper the opportunity to examine brood to evaluate the effectiveness of the queen.

## **Why replace the queen in a colony?**

**# 1** I like gentle bees! Anyone who has worked with me has heard me say over and over, if I have an aggressive hive, the queen is in trouble.

- Aggressive bees have no place in a populated neighborhood. Once the queen is found and replaced, it will take some time for the new queen's worker bees to exhibit the gentle behavior expected from the new queen. Replacement can take place anytime during the beekeeping season. Late in the fall, I might just hope the colony dies. No one should be afraid of their bees! Wearing protective equipment should reduce the fear factor, but when dealing with (hot) hives, the fun of keeping bees disappears.

**# 2** Anytime one finds a failing hive a red flag should go up. There are many reasons for failing hives but replacing the queen is one area I look at:

- The queen's egg laying pattern is one of the best signals I look for! I can count frames. I can see the bee population leaving and entering the hive. I look for food stored in the upper corners of frames. I look for full frames of brood.
- If I see a brood problem – scattered brood, too many drone cells, and brood on just a few frames I consider it time to save the hive by introducing a new queen. It is pretty obvious if one has several hives of bees doing well and one that is lagging behind. All hives being treated the same – a weak hive indicates something is happening.

- **# 3 A queen-less hive**

It is obvious that a hive without a queen needs one! The problem is how long has the hive been queenless? This is why it is recommended to check hives for brood. The presence of brood can indicate the health of the hive. All three stages present – good.

- No eggs (basic bee biology) 1- 3 days for eggs to hatch and become larvae. The hive has been without a laying queen for at least 3 days.
- Larvae present but no eggs. Day 4 to day 9 larva grow and enter the capping stage. No larva at all indicates the hive has been without a laying queen for at least 9 days.
- No eggs, no larva but capped brood is present and will be present until the pupa stage is complete and a young bees emerges from cells. Thus, no brood at all would indicate the hive has a serious problem. It has been without a laying queen for at least 21 days for worker bees to emerge and at least 24 days if drones have not emerged from cells.
  - The major problem with this time-line is a virgin queen may be in the hive.
- If one tries to introduce a new laying queen into a hive with queen cells or a virgin queen -- the worker bees in the colony will kill the introduced queen –a waste of the queen and the money used to buy her!



This is a sure sign that a colony has raised a young queen and she has emerged from a cell similar to this.

If the colony has a new virgin queen, the bees will not accept a new laying queen introduced to them!

The question was:

Perhaps you can share your're queening process?

As I indicated above it is important to determine when and why a queen needs to be replaced.

The queens I purchase come from reliable breeders I know personally. There is a difference in queens. Some are sold with a lot of hype -- I have learned to avoid the mass produced queens sold thru distributors! Unfortunately, a beekeeper's usual choice is to buy from a source that does not raise the queens.

Locally produced queens by individuals raising queens would be a good choice. If their queens do not pan out, you are able to contact the person and discuss what they might do about a problem you are having with a queen you purchased. If they blow you off, you know not to buy from them in the future and you can share your displeasure with friends. That is why it is good to ask other beekeepers where they get their queens.

Installing a new queen:

- 1 Make sure the hive/colony has no queen!
- 2 If the hive has a queen, do not kill her until you have a new queen on hand.
- 3 New caged mated queens can be held for a short time before installing them. Keep new queens in the dark and at a temperature you find comfortable for yourself. There are different cages used to hold queens.
- 4 I do not release attendant bees from the queen cage. Some claim better requeening results if they are removed. I have seen inexperienced beekeepers lose a queen that just flies away as attempts are made to release the worker attendants.
- 5 I am in no hurry to let the queen out of her cage – let the bees release her! Queen cages usually have queen cage candy that delays the release for a few days.
- 6 If after 2 or 3 days, it might be necessary to check to see if the queen has been released.
- 7 If the bees have done little to release her, check the hive again for a queen before you release her. I have seen aggressive behavior toward the queen in a cage – the term balling the queen comes to mind. Again, check the hive for a queen and signs of eggs.
- 8 Since queens are selling for about 40 to 45 dollars each -- a few minutes spent checking the hive for the reason of the aggressive behavior of bees is money saved.
- 9 Hopefully the installing of the queen is successful. Check under and around the landing board entrance for a dead queen. It does happen – my experienced guess is about 5% of introductions are failures even under the best of conditions. A certain % will be superseded. The bees may accept the new queen but shortly begin to replace her. If this happens one can relay that information to the seller. Some sellers will make allowance on the price of a replacement queen.
- 10 Check for evidence the queen has been accepted – the presence of eggs about a week after she has been released from her cage is a sure sign that the queen is now laying. I check for and remove cages as soon as I find them empty of the queen and bees. If one waits too long the bees will build burr comb in the space the queen cage occupied.