

STAHLMAN BEEKEEPING

NOTES FOR 2025



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Supersedure Part II

A newly started colony with a package of bees has always presented beekeepers with some issues that are different from a swarm of bees.



- A prime swarm with the queen from an established colony has no trouble with queen acceptance.
- The bees are gorged full of honey and quickly establish a nest for the queen to start laying eggs.
- The bees are not under undo stress – swarming is a natural event in the life of honeybees.

sold to beekeepers to start new colonies! Often, they are used to replace bees in a dead-out colony.



Package bees on the other hand are removed from a hive and either shook off a frame or blown out of a super into a funnel. This is how bees are put into a package cage. Often the bees in a package can come from several hives. A queen cage is inserted into the package along with a syrup can.



Thus, bees are under a lot of stress. The next step is to take the bees as quickly as possible to a holding area that is cool. **A package of bees set in full sun without shade will die quickly on a hot day.**





From the staging area, bees are loaded into trailers for a journey potentially of several hundred miles. Bees must have air and ventilation during the journey. And when they arrive at the destination, they are unloaded and often stacked one above the other. Note in the picture to the right, some packages have dead bees on the bottom of the package cage. Expect a few dead bees but not when the bottom of the cage is covered with them.



This happens when bees get over heated.

Some bees are shipped through the mail – the story there is often not good but surprisingly bees do survive that journey as well.

The queen makes this journey in a small queen cage protected from the bees that most likely would kill her if she were set free during the journey. How the bees are handled once they are received by the beekeeper can add stress. Bees need to be moved within hours from the cage to a hive. Bee schools and bee books will cover this topic. Below are just some pictures I have taken over the years showing the process.



Brushing sugar water onto the screen to calm the bees



The syrup can supplied to the bees for the journey is removed.



The queen cage is removed



The queen cage is put into the hive – make sure the candy is exposed so the bees can release the queen.



Install the bees into the new hive

And after all of this, the bees are free to fly and release the queen from her cage.

It is remarkable that honey bees can adjust to all of this!

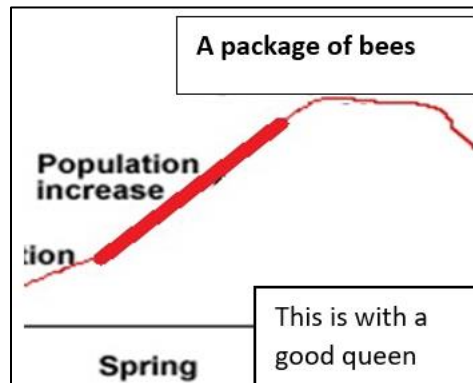
What could possibly go wrong?

“The rest of the story!”

Many colonies fail because of queen issues. This is especially true of package bees delivered with a poorly mated queen or one not yet mated.

Colonies can be found in dire straights if the queen fails. That new hive with a package of bees is going to either accept the queen or kill her. If they accept her, she is somewhat in the same predicament that a new employee is when hired. She is on probation. Some call it a honeymoon – the honeymoon period may last for a very short period when bees in the colony decide she is not up to performing. This might be related to the queen substances she produces. It is also related to the physical ability to lay eggs – queens can be injured when removed or placed in a queen cage. The bees might damage her while she was still in her queen cage – such as bite at her legs while the bees were in transit to (the bee hive).

The problem is this: The bees that arrive with the package have a very limited amount of time to build up into a productive colony. Summer bees have a life span of 40 days more or less. Starting immediately some of those bees will start to die – some each day.



Beekkeepers are faced with two conditions in a poor queen startup colony:

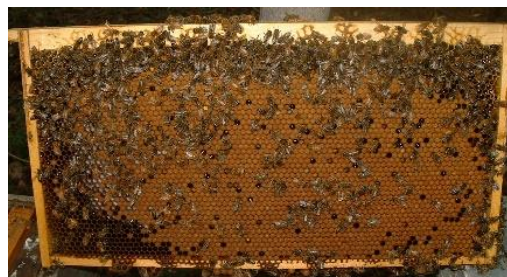
- The bees may supersede the old queen – delaying again the population growth of the colony and there is a chance that a new queen may be poorly provided with royal jelly and the net result is the colony may abscond or dwindle away.
- The colony will face a certain set-back. Even if the bees succeed in replacing the old queen with a good

queen, this colony will be a target for wax moth, small hive beetles, and other bees because they will not have the bee population to protect themselves.

- Additionally, it will produce no honey crop and require constant attention.

Let me share several frames from two colonies. One from a very strong colony with five frames of brood. And one with a poor queen.

Group # 1



Brood should be centered in frames in an oval fashion -- compact with few missed open cells.

The brood nest grows as colony population grows and fill frames in the center of the brood chamber. Honey is stored in outside frames. I might mention that when a colony begins to store honey in brood frames, the colony is congested and needs more room added. The same applies if bees begin to fill brood frames with pollen. The bees solve this problem by swarming. These are not queen problems.

Group # 2.....

Actually, any colony showing signs of population decline should suspect queen failure as a possible cause.

Population decline

Spring

Poor Queen

A poor queen produces poor results

Population decline is one obvious sign when brood looks like this. The queen is responsible for population growth. Hive inspections should determine this early.

The brood pattern below indicates the queen should be replaced! It is not normal to see both worker brood and drone brood

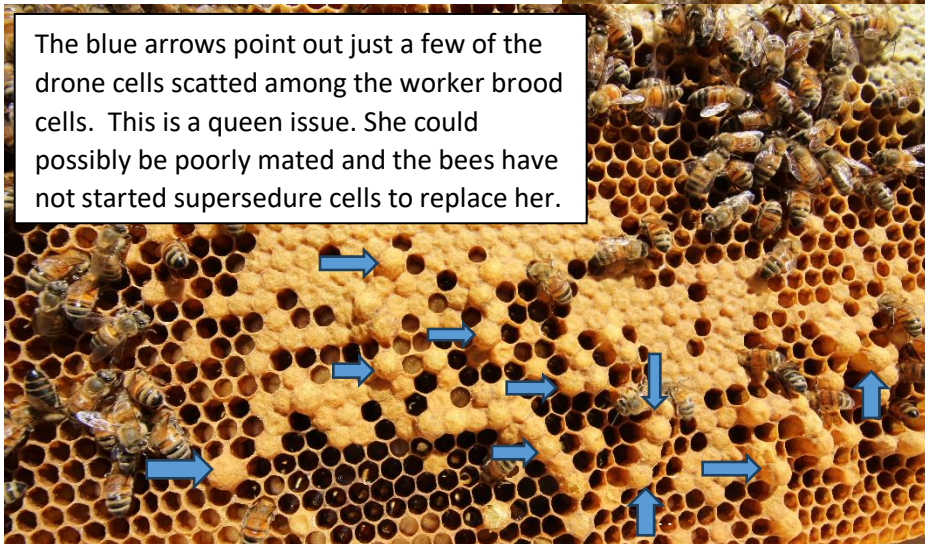


scattered about within the brood nest as shown here.

These pictures show two sides of a frame taken from a colony with a poor queen.



The blue arrows point out just a few of the drone cells scatted among the worker brood cells. This is a queen issue. She could possibly be poorly mated and the bees have not started supersedure cells to replace her.



The brood is scattered about on the frame. It includes eggs, larva, and capped worker brood. There is also a mixture of cells with raised caps among the worker cells. This indicates she is laying both fertilized eggs and un-fertilized eggs. This colony is headed for failure. Queens like this may be in the

packages we buy. Beekeeping is like watching a ship go down – we may be too late to save it. If the leak is found in time, the boat can be saved! A hive like this can also be saved if the queen is replaced.