



# **STAHLMAN**

## **BEEKEEPING NOTES**

**2024 Vol 6  
issue # 11**

Published by Dana Stahlman Raleigh, North Carolina Email: [stahlmanapiaries@aol.com](mailto:stahlmanapiaries@aol.com)  
Published free as a public service to anyone interested in honeybees. Email me to be added to my mailing list. Published 3-16-24

### **Weak Hives**



I have indicated many times that weak hives require more attention to keep than a strong hive, and often with little to show for the time and labor put into saving the hive.

I took this picture many years ago. This was a small cluster of honey bees still alive on a comb. They were starving. I removed the queen and the bees and put them into a queen cage thinking I could use the queen to put into another hive.

Unfortunately a few days later even with a drop of water every day and a plug of sugar candy, they died. I was disappointed but I tried.

All beekeepers must realize that a colony of bees is made up of individual bees that

work in concert with all other bees in the hive. It takes “a village to raise a child” is a common expression.

To be successful a colony of bees must:

- Have a good queen
- Have a bee population to maintain the colony (care for young larva, keep them warm, leave the colony to gather food, and as this picture shows attend to the queen.
- Health issues are another aspect of hive survival.



Lets look at what a beekeeper can do to save a weak colony! Keep in mind that a beekeeper with resources “can usually save the day” for a week hive.

Bee schools teach that a new beekeeper should start with two hives of bees for a reason. A second hive provides resources of frames of bees, brood and honey.

A beekeeper can also use the biology of honey bee behavior to save a weak hive.

The first thing to consider is replacing the queen:

- Young queens are more productive than old queens (generally speaking)
- All the colony’s bees are expressing characteristics good or bad inherited from the queen.

- Queens can be well mated or poorly mated – age is not a factor.
- A disease resistant queen usually produces bees that are called “survivors”.

Management techniques to save a weak hive including replacing the queen:

There are many choices of techniques to use when saving a weak hive. As beekeepers we develop a style that works for us. The last choice I give in this newsletter may be as good as the first choices I will share with you. I don’t spend much time thinking about methods. As a commercial beekeeper, time spent with a hive had to be profitable. Most hobby beekeepers have the time to spend working with a hive of bees that will not produce income. Thus, you will have the choice of methods to use – it doesn’t have to be my way.

### 1. Combining hives:

Colonies of bees can be combined almost any time during the year. Usually during the fall, one can combine weak colonies. The same process can be used in the spring.

A beekeeper with several hives should find the strongest hive available. I am not an advocate of combining two weak hives.

One way to combine two hives is as follows:

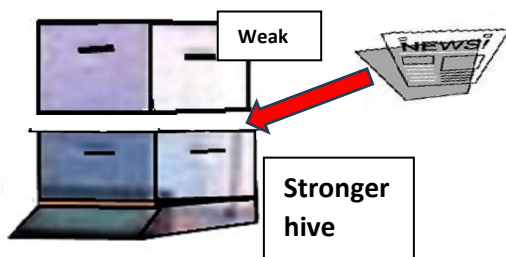
“Find a stronger colony and move the weak colony above it.”

I was asked last week about using the newspaper method. I am going to recommend that you disregard what I do “I just set a weak hive body with bees and even maybe the queen above a very strong hive without using a newspaper.” I let the bees in the strong hive take care of the queen and any bees they do not accept quickly. I don’t think I can recall anytime when the weak hive queen was accepted by the strong hives bees! It does result in some bees fighting but that event is over very quickly.

This works well with drone laying worker hives as well. I have worked with a large number of bee hives and the method I mentioned above fits into the time and labor saved category.

Almost all bee books will provide information on how to combine two hives of bees – the following will illustrate a way to feel comfortable saving a weak hive.

The queen in the weak hive is removed eliminating any chance that the better queen is killed.



The illustration shown here has the strong hive on the bottom board. The top cover and inner cover are removed. A single or double layer of newspaper is placed between the two hive bodies. The weak hive is placed above the newspaper and the hive is closed-up. Job done.

Inspections later will show how well this method worked. The weak hive’s bee population is added to the strong hives bee population. It might be possible to split this hive later when it is stronger.

The second method is much like the illustration above except this method does not join the two weak hives into one. It does allow the weak hive time to build up and it is removed when stronger. Heat from the strong hive below provides the weak hive above with warm air so that more brood can be raised by the limited bee population.



To help the weak hive, a beekeeper must have something called a double screen board and a separate entrance usually to the back of the hive. In place of newspaper the double screen board is placed above the stronger hive below.



This is a double screen board. This one has three choice for an entrance, most will have a entrance to the back and only one entrance is needed.

Check out the bee catalogs or bee equipment dealer in your area to buy one. They can be made by anyone working with wood. Screened

wire is placed  $\frac{1}{2}$  inch or more apart so bees can not touch each other. It separates the two hives from physical contact.

This method uses heat from the hive below to help the hive above maintain the temperature necessary to raise brood. It can be used in many other management decisions such as: making up nucs, raising queens, making splits/hive increases, and even to produce honey as a double queen hive.

Many text books will suggest taking frames from a strong hive to give to a weak hive. Both A.J. Cook and C.C. Miller used this method to make hive increases.

A beekeeper must consider the number of frames to be taken from a strong hive. Another issue to consider is what frames should one take. This is a popular method to help weak hives. If wisely used, both the strong hive and the weak hive will benefit.



This is a strong hive. It can spare a few frames of bees and brood. Removing a few frames from this hive will help prevent swarming and drawn comb frames added as replacement frames will be quickly filled with eggs by the queen. The major honey flow is still weeks away. Taking some frames from a hive like this will not harm it as long as the queen is not also taken from it.

Some rules for transferring frames:

**When frames with brood are transferred, place them next to the existing brood in the weak hive.**

**Do not transfer frames that are completely filled with worker brood** – why? Because a weak hive does not have enough bees to keep the brood nest at 92° F. and something called “chilled brood” will result.



Chilled brood means that the brood outside the bee cluster get cold and die. What a waste of good brood.

A frame like this looks pretty good but **do not move** it to a hive with a weak population of bees! See why above!

Moved frames should have more capped brood. The reason for this – nurse bees are required to feed larvae and with a small population of nurse bees, it will be difficult for the bees in the weak hive to feed too many more than they already have.

This picture shows the movement of frames from a stronger hive into a weaker hive. This is called equalizing colonies. Weak hives should be reinforced with enough bees and brood to make a colony of at least 5 frames of bees. A hive made stronger will with a good queen be strong in about 6 to 8 weeks and strong enough to get a honey crop. All frames moved to a weak hive do not have to come from one hive. Maybe a hive is not as strong as the picture I used but it can give up one frame. Remember all older bees on frames moved usually fly back to their mother hive. The younger bees are less likely to be a danger to the weak hive’s queen.



**And there is one more method that I have written about in a previous newsletter which I called “Switch-a-roo!”**

If the weak hive has a queen you consider of good quality, this is a fast and easy method to add more bees to the weak hive.



This application to bee management can be used in other situations. It was also used by Miller and Cook to make increases. It does not involve moving frames and brood.

The biology: If you want to try an experiment that will take just a few minutes, pick up a hive (it could be small, weak, strong – it makes no difference.) Move the hive 5 to 10 feet from its location. Immediately watch to see what happens! Bees will return to the location not the hive that was moved. If the beekeeper places another hive in that location, the foraging bees will enter the new hive. There will be a state of confusion for a few minutes but the bees will enter the new hive and stay if that hive has brood. Foraging

bees will be accepted by the hive placed in that location because the foraging bees are returning with rewards – nectar and pollen.

### **Some additional comments about saving a weak hive.**

A beekeeper needs to keep a watchful eye for robbing. Not only are weak hives targets for being robbed, they are targets for wax moth and small hive beetles. I would recommend checking weak hives several times during a week. Any sign of small hive beetles and wax moths needs to be taken care of immediately.

All the effort put into saving a weak colony can be lost with-in a week to a month. I often hear beekeepers make this statement “I had bees in my hive the last time I checked. Now there are none!” I often reply, “When was the last time you checked?”

On occasion, weak hives abscond. They leave the hive. It is my experience that this happens when something is wrong with the hive well before the bees leave. I think most often it might be for the lack of food especially during a period when little pollen and nectar is available. It could also be due to wax moth or small hive beetles.

New hives must be encouraged to raise brood. Feed carefully! **(A weak hive with sugar syrup is a target for robbing bees!)** When inspecting weak hives, don't leave the hive open for very long. Do what needs to be done and close up the hive.

The entrance to a weak hive should be reduced. Robbing screens would also be a good idea to place on a weak hive. A hive that is robbed does not survive. The robbed bees are either killed or they drift to other hives.

Varroa mite counts are important. Keeping bees is a full time responsibility. If you find just a few Varroa mites in a weak hive, the hive is in real trouble.

Combining a weak hive with Varroa mites is doing the receiving hive no favor. Giving a hive frames from a hive infested with small hive beetles is not really helping the hive in need.

Medical Doctors have a code of “Do no harm!” Beekeepers should also adopt that code.