



STAHLMAN

BEEKEEPING NOTES

FOR 2025

2025 Vol. 7
issue # 8

Published by Dana Stahlman Raleigh, North Carolina
Published free as a public service to anyone interested in honeybees. Email me to be added to my mailing list. stahlmanapiaries@aol.com

It is time to be thinking about getting ready for spring

One of the first things I think a beekeeper can do is control the urge to inspect a colony of bees while it is still cold. The cardinal rule is to wait until temperatures are high enough for honeybees to break up the cluster and begin to fly. If you see normal activity at the hive entrance it may still be unwise to check frames. I like to say that I generally wait until mid-day on a day with temperatures in the low 60 degree range. Allowing bees to fly and forage reduces the number of bees in the hive. And keep in mind those flying bees are older bees, not the ones keeping brood fed and warm.

The secret to hive inspections are:

- Select the right time – Avoid stormy weather conditions and trying to work a hive as the sun is going down. Commercial beekeepers violate this rule because “time is money” and working in the rain, late in the day and even at night fall within things that must be done to make money.
- When doing an inspection have a goal. Know what you are looking for. Opening a hive not knowing what you should or may see is just haphazard gazing and not seeing.
- Know the general beekeeping techniques used working with a hive in any season of the year.
- Regardless of the colony (one started from a package, one started from a nuc hive, or an established hive) have a reason for doing an inspection.

While it is too early to start a hive if one is just beginning, others may have colonies that survived the winter season. Some will find dead hives and all these things fall into spring beekeeping.

If you are new to keeping bees, the greatest urge is to get bees as soon or as early as possible. I would like to say – cool off just a little bit. You might be well off just building a swarm box and wait for a swarm to find your swarm box. As a reference, you might read material on how to build swarm boxes or learn about swarming behavior. Honeybees started in new equipment and new foundation must find pollen to feed hatching eggs as they develop into larvae and then adult bees.

If one waits until trees are in bloom and pollen is plentiful, the bees will have resources other than sugar syrup to develop into a strong thriving colony.

Let me say that when one finishes a hive inspection, they should be able to answer questions like those listed below.



The Hive:

Are hives located in a suitable location or should they be moved?

[Winter is a good time to move bees – new young bees are not going to be flying and cold days keep the bees in the hive unless they are roughly handled.]

Some may say bees must be moved 2 miles or more if they are being moved in your yard. Not so. It is disruptive to any hive being moved but if other hives are not around to collect foraging bees to their hive site, bees will find their own hive or drift to others near by.

Is the hive stable?

A number of things to be checked:

- Is it level? Is it water tight? Is there debris or other mater on the bottom board? That may be blocking the entrance? Is it mouse-proof? If on a hive stand, what are the conditions of the legs. Does the hive have wind protection? Are there bees on the ground in front of the hive? Is there any shade for the hive during any part of a day?



The Bees

Do the least harm. Bees can be observed both from the top and bottom. Pulling frames is an art. And I see so many beekeepers having trouble getting frames out of hives. It is not really necessary in February to find the queen if you see a cluster of bees like this in a hive. First, this colony of bees is still in the winter cluster. *One has no business pulling a frame from this hive until the bees are actively moving around and flying.* Bees are usually kept in either single deep or double deep hive bodies for the winter season.

It is best not to open any hive when temperatures are too cold. But there are exceptions when a beekeeper would want to know if a colony is okay. One way a quick inspection might be made

while the bees are still clustered is to raise the top box of a colony of as shown here. This is a quick inspection to determine if a colony needs help. No work should be carried out by pulling frames on a cold day.



Bees at this time of the year will generally be found in the upper chamber of a double deep hive.

The two photographs above show what typical colonies looks like in late winter.

What is determined with this type of inspection?

If the bees are alive, one could determine if they need food or possibility a super added. A look at bottom bars would possibly indicate queen cells. For the short period of time required to lift the hive body and quickly look for issues not much cluster heat is lost. Bees could be observed to see if they were quiet on the comb and nothing looked abnormal. This can be done in less than 5 minutes.



Late Winter Inspections when temperatures rise

Removing frames from a hive make it possible to determine what is happening within the colony. Remove frames only when the cluster breaks up which begins when temperatures reach the mid 50 range. Best is to wait until the bees are flying at temperatures above 60°F.

Note the position of the frame in this photo. It is held out from the beekeepers body with the sun behind the beekeeper. This allows light to reach the bottom of cells in the nest.

Bees should be calm and quiet. Note that I start removing frames from a sidewall and move toward the center of the hive. The first frame removed is not returned to the hive body and either set on the ground next to the hive or placed in a frame holder.

So what are we looking for on a Frame?

- **Evidence that the colony has a queen.** It is not necessary to see her and it is easier to see marked queens. Beekeepers often clip a queens wings to prevent them from leaving the hive with a swarm.
- Look for eggs, larvae, and capped brood. Each can give precise information about the condition of the brood nest. All must be present to indicate that a hive has a queen.
- Bee populations also indicate a queens ability to build a bee population that will later produce a honey crop.
- Check to see if the colony has drone brood and maybe some adult drones present. This is important during spring inspections because drones indicate the colony is building bee populations and preparing to swarm later.
- Many colonies die out in the spring because they use up honey stores quickly when brood is being raised. A check for honey stores is important.



Can you find the queen in this photo?

This is a picture that shows more than just a queen. Check out the bees – some are dark, some are very light golden and some have dark bands – check abdomens. This will provide information about the

genetic make-up of the bee colony. This queen is a hybrid and her daughters display the various characteristics from drones that mated with her.



Comb management

Without frames this is the way bees would build comb. This is the problem beekeepers faced before frames were used in hives.

In a nest such as this, there is no way to know what is happening without tearing the nest apart.

Spring is the time bees naturally build comb and if one does not take advantage of the bees natural instinct, it will be hard later to encourage them to do the job as trees and flowers provide vast amounts of nectar and pollen which stimulate wax glands in bees 14 days or older. According to bee literature wax glands degenerate at about the time the

bees shift from being house bees to foraging bees. Building wax is a group activity often referred to as festooning which begins as bees attach wax scales to some support. In nature bees build comb which hangs down wide at the top and rounded near the bottom. You can see that in the picture above.

Comb in a frame needs support. Honey is heavy and can fall out of frames especially when being extracted.

From the Dadant 2018 publication of *The Hive and the Honey Bee* "With unsupported comb, the stress on the topmost cells is extraordinary; a comb 30 cm deep (1 foot) supports 1320 times its weight in honey (Coggshall & Morse 1984).

This is one reason frames are not deeper than the standard frame size. Cross-wiring a frame to hold and support the weight of honey is important. One reason for the popularity of plastic foundation is the fact that plastic has a mid rib to support the weight of honey comb and it results in almost no blowout when honey is extracted. For those beekeepers using radial extractors -centrifical force not only throws honey outward from the frame but also comb poorly attached to a support such as a wired frame. The faster the extraction speed is increased, the more likely comb will **blowout** of its frame.

Thus, comb inspection is vital to the success of a colony and its health. The goal of a beekeeper should be to keep frames with good comb in the hive and remove any that are misformed.

Misformed or drone comb reduces cells available for worker bees and is one contributing cause of swarming.

Since we are nearing the time when trees and plants will encourage comb building, now is the time to remove any poor comb and replace the frames with new foundation. With studies of chemical contamination in wax comb indicating a high level of possibilities of 50 contaminants being found, it is a good time to consider how old the comb is in your hives. When new frames are being built, it is a good idea to put the year on the top bar. For example, a permanent marker used to write 25 on the top bar would clearly indicate that the wax comb should be replaced in say 2030.

Hive inspections will continue to be the topic of upcoming newsletters. I consider wax building to be equally as important as checking for the queen. With new information about the causes of colonies dying, we may consider contamination as a cause equal to varroa mites.