

**Stahlman Beekeeping  
Notes for 2022  
Dead out hives &  
Foundation issues**



**Issue # 4 January 22, 2022**

I spoke on zoom to folk in Ohio and British Columbia this past week. As far as weather conditions -- North Carolina is not so bad off!

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“Right now Kamloops is snowed in and cold. Probably up to 24 inches on the ground. It's been below freezing for two to three weeks. The coldest was -20F and today at 09:00 it is 14F. The temp rose to about 32 degrees a week ago and I looked at one hive but did not see bees on the snow or brown spots so I left the hive alone. I don't have one of the infrared heat thermometers so the hive is either alive or a dead out and I won't have access until the end of Feb. or early March” Ian Farber Kamloops Beekeeping Club

Kamloops is located in British Columbia. I had a great visit with the club on Tuesday evening at 9:30 EST. This information was provided by Ian Farber a member of the Kamloops Beekeeping Club. The range of temperature difference between various individuals receiving my Notes varies a lot. If we had temperatures like that in Raleigh, the entire state would be shut down for quite some time. On the same day I spoke with the Fairfield County beekeepers in Ohio. They had 4 to 8 inches in their area. I joked that I don't even own a snow shovel. However, the weather report indicates we might get snow and sleet on Saturday – the day my notes are published.

The big question on my mind today is are my bee hives alive? Our temperature today is in the mid 40's with a low around 30 F. I will driving out to the farm later today to check. The most pressing need is to check on food available to the bees. I am including a power point presentation with this Note that covers the topic of winter management. Rather than build a note about January beekeeping – I hope you check out the pdf copy of my PowerPoint presentation. Some adjustment needs to be made for every bee calendar adjusted somewhat to where you are located. There are even adjustments to various climate zones within states.



Dead out hives make for an interesting subject. I have never gone through a beekeeping season without having some dead-out hives. I preach about the importance of fall mite treatment and feeding. Sometimes we do all that we can do and still some hives die. I understand the disappointment all too well.

This is one of my hives. The question I ask myself is: Why did it die?

This hive was located on a farm where I keep about 20 hives of bees. The photos I took pretty much tell the story:

A fairly large cluster of bees – dead!



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**This was my fault! These bees starved to death! Note the absence of food (capped honey) anywhere near the cluster.**

**I had expected this bee yard to find a good fall honey flow of goldenrod and buckwheat. The fall temperatures were high and I procrastinated -- I did not do a good hive check!**

**I cannot do anything about saving this hive now! So what can I do?**

- 1. I picked up the equipment, took it home, and did the best job I could by cleaning the dead bees from the hive including cleaning the bottom board and recycling some of the frames in the hive.**
- 2. The frame listed as 2 is several years old. However, this frame will be put into my solar wax melter this summer. It will be replaced by a new frame with foundation – either beeswax foundation or Acorn black plastic foundation. (More on the selection of beeswax foundation vs. plastic a bit later in this article)**
- 3. In the meantime, I am building some swarm traps and this frame will make an ideal lure for swarming bees. This is not a good frame to be used in the brood chamber. Note the large amount of the comb missing as well as the replacement comb built by the bees happens to be drone cells. That results in fewer worker cells available on both sides of this frame for the queen to lay worker eggs. This frame will also contribute to the possibility of producing a congested brood nest which would promote swarming in the spring season.**
- 4. I do not promote burning a frame like this unless I can confirm that it has American foulbrood or the possibility of AFB exposure.**
- 5. I have ordered package bees from Georgia for replacements. It can get quite expensive buying bees every year. I am seeing prices ranging from \$115.00 to \$140.00 for a single 3 pound package.**
- 6. The first step in the selection of queens is looking for sellers willing to provide the kind of queens going into hives with the bees.**
- 7. I very seldom recommend who to buy from. Generally, packages delivered to you from southern states result in early queen problems and the possibility of the introduction of mites to your hives.**
- 8. A local beekeeper selling nucs might be a better solution for a beekeeper just starting beekeeping.**
- 9. Putting bees from a package into a dead-out hive will result in a quick build-up because the bees will take advantage of the already drawn comb in the hive!**
- 10. A local producer of nucs and packages is a better choice - nuc hives build up much quicker than a package of bees introduced into a hive.**

## Some thoughts on the selection of foundation and frames.

Many beekeepers at this time of the year are making selections for beekeeping equipment. One of those decisions will be the selection of foundation used in frames.



I use a number of frame sizes. Mostly deep frames and medium frames. When I raise queens I use mini nuc frames. As shown here, I am using two to illustrate this discussion. In the foreground is a mini nuc frame 1/4 size of a deep standard hive frame. I use wax foundation in my nuc hives.

I use black foundation in my standard deep hive frames and have been told that Acorn [a manufacturer of plastic comb] is no longer making the plastic black foundation for medium frames. So I will be using beeswax foundation in my medium frames this year.

One general observation I have made over the years is that bees work natural beeswax foundation better than plastic foundation. However, I use plastic for several reasons:

- It takes less time to install plastic foundation in wood frames.
- If the plastic is double or triple coated with wax, it will be drawn by the bees much as pure beeswax sheets of foundation.
- It doesn't blow out of frames as easily as pure wax foundation during extracting.
- Wax moth and mice do little damage and the foundation can be recycled easily by cleaning the plastic foundation and waxing it again for use.

By far the easiest to use (time savings) is plastic inserts. Using inserts does require a special frame sold just for inserts. Frames for natural bees wax foundation will have holes drilled in the end bars as well as a wedge top bar. The wedge top bar holds wax foundation in place on the bottom edge of a top bar with staples or nails. Plastic insert foundation is fitted into a grooved top bar. The plastic foundation is just inserted into the groove and snapped in place.

**Make sure when you buy frames to know if they take wax foundation or plastic inserts!**



The wedge top bar is shown here with wired beeswax foundation placed in the wedge.

It takes time to build frames. If frames are poorly built and foundation poorly installed, the various problems of working a hive will show up quickly.

The advantage of a bee school teaching hive and frame construction is important.

I have seen so many new beekeepers try to put wax foundation in frames that are

not wired. Wiring is an important step to keep the comb built by the bees straight. The two photos below show a frame with comb drawn well and a frame with distorted cells.



The frame on the right was drawn out by the bees. They were handicapped by the comb sagging after it began to be filled with honey. Beeswax is soft and pliable. During hot weather the weight of honey stored in the comb of a frame without any support for the comb can be distorted as shown here.

This could also happen to comb built with just a starter strip. I will begin next week's article with a close up of the frame you see on the right. We all learn from mistakes. It is best to avoid the simple ones early – "If you build a house on an unstable foundation expect windows that don't open properly, cracks that form around door jams and window jams, floors that are not level, and face expensive repairs.

I will be discussing some of the points involving frame building in a future issue. Right now it is time to order and get your equipment. Bee equipment suppliers will usually guide you with plenty of advice. Ordering blind from the internet or from a catalog is a bit risky if you do not understand the terminology used for hive parts. Top bars are designed for various kinds of foundation.