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# *STAHLMAN*

## *BEEKEEPING NOTES*

### *FOR 2025*

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Published free as a public service to anyone interested in honeybees. Email me to be added to my mailing list.  
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#### Winter Tasks

I often save a few beekeeping jobs for the winter season. When it is too cold to do anything with or for my bees, I find things to do such as clean up equipment. Fortunately I have a two car garage to work in on cold days. I use an electric heater to knock the chill and I want to warn anyone working in any unheated cold space to avoid any heaters using propane or heaters emitting CO<sub>2</sub>. Carbon dioxide is dangerous in enclosed spaces.

In humans, exposure to CO<sub>2</sub> at concentrations greater than 5% causes the development of [hypercapnia](#) and [respiratory acidosis](#).<sup>[47]</sup> Concentrations of 7% to 10% (70,000 to 100,000 ppm) may cause suffocation, even in the presence of sufficient oxygen, manifesting as dizziness, headache, visual and hearing dysfunction, and unconsciousness within a few minutes to an hour.<sup>[48]</sup> Concentrations of more than 10% may cause convulsions, coma, and death. CO<sub>2</sub> levels of more than 30% act rapidly leading to loss of consciousness in seconds.<sup>[47]</sup>

**This is information from the internet and I think it is useful. Many homes have CO<sub>2</sub> warning alarms.**

#### Back to bee chores:

There is usually no hurry to get bee jobs done during cold weather. One of the first jobs is clean up equipment not in use. Used supers and frames can be scraped of excess propolis and bees wax. Both are considered as products of the bee hive.

Propolis is often called bee glue because bees use it to seal cracks in hives. Bees often embalm objects too difficult to remove from hives such as dead mice by using propolis. We can even find propolis in health food stores as a health supplement.

I have looked upon it as a sticky substance best avoided but it gets hard – stone hard in winter. I have used the mixture of bee wax and propolis to coat fire starter pads to use when I want to fire up my smoker. There is a market for it but not much is collected when cleaning just a few frames and hive bodies.

Something less desirable is cleaning up hive equipment from colonies that have died. I would not carry dead out hives into any interior part of your home that is used frequently by people including the garage.



The bottom board of a dead hive contains all kinds of small particles of wax, dead mites, and bees. I generally dispose of the dead bees and trash in my garden area. Birds will take care of the bees quickly. I use the winter season to examine stored frames in hive bodies, and build new equipment in my garage. Storage space is at a minimum in my garage so I bring in several supers of frames to work at a time. I have a work bench and a tarp I place on the floor in the work space available to me. That tarp is

more important than the work bench because when I work all the stuff that falls to the floor and without the tarp is hard to pickup later.



A lot of things can happen to stored comb.

Rather than pull this frame out of a hive just when you need comb in the spring, you can save lost time by now trying to clean it up. Most would burn this frame and comb.

The mold on this frame is caused by moisture. Stored comb should be stored in dry moisture free places.

I see two solutions to this frame other than burning it.

1. If the frame is not old and dark, I would most likely cut all the comb

from the frame to recover the wax. I could later melt it down. New foundation would replace this older most likely contaminated comb and the bees would draw new foundation making this frame usable again.

2. I could place this frame in a 30 gal. trash container and fill it with enough water to cover the entire frame. The frame would have to be held down with a weight of some sort. I then would add a cup of cloxox or bleach to the water and let this set for several days. The frame would be removed from the trash container and dried in open dry air. It then could be brushed with a stiff brush. When reinstalled in a hive of bees, believe me, the bees will finish cleaning the comb and use it. Not the best of any of the solutions but I have seen worse comb than this restored to use by honeybees.

I check all frames for comb problems. Disfigured comb used in a brood nest is not going to produce the results that a frame with 100 % worker cells drawn ready for a queen to lay eggs in will.



Dark comb five years or older most likely is very contaminated with anything the bees touch. Even air born dust contains contaminants that get into the hive because bees fly through that contaminated air. Contamination builds year after year which can affect the health of the bees as well as get into the honey taken from the hive.

Disposal of old wax comb:

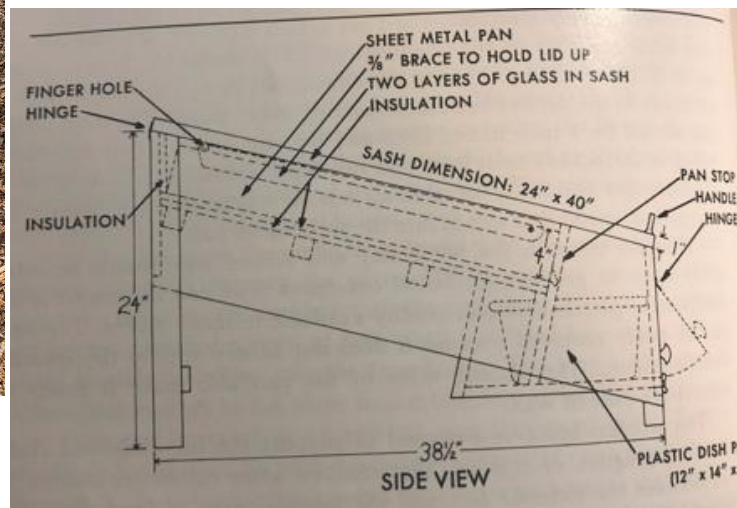
- Any diseased comb can spread diseases to other hives if honeybees are attracted to it especially if the comb contains honey. For this reason I would not recommend placing comb in the garbage which is carried to an open dump site.
- If you are going to burn any wax frames, beware of fire hazards. **Warning:** Beeswax is very flammable. Water will not put out burning wax. Wax floats on water exposing the wax to oxygen required for it to burn. Flames from burning wax shoot high into the air.

What can be done with that old wax? I melt it down. My favorite method is to put the wax into a burlap bag and hold it until it gets warm in mid summer. By that time my solar wax melter will work to melt the wax. Old wax is attractive to bees, hive beetles and wax moths. But they will not be a problem during the winter season.



If you are handy with tools, now is a good time to build a solar wax melter.

This is one I built with scrap lumber and a picture frame with glass from a thrift store. The picture frame determined the size of the wax melter. The plan below should give you an idea what was needed and how mine was designed.



Over a period of time, wax can be collected. Those interested in wax candles or molds will find this wax useful. I use it to restore recycled plastic foundation.