

BIG WOOLY BEEK'S GUIDE TO  
INSTALLING SUGAR CUBE BOARDS ON HIVES AND NUCS

I install sugar cube boards on all my hives and nucs in early December to take care of my two biggest problems with overwintering honey bees in the Pacific Northwest -- delayed spring nectar availability and moisture control:

- **EARLY SPRING FOOD SHORTAGES** -- I'm in the Cascade foothills at about 1000 feet and some years the spring just never shows. I've had years where my bees have consumed all their winter stores before the nectar begins to flow in the spring. This is especially true with 5 frame nucs which do not have enough storage room to make it all the way through the winter and are always in danger of starving to death by the beginning of March. This usually isn't a problem for most commercial beekeepers since they move their hives and nucs down to California in early winter. But for me it's a real concern. The sugar cube board is located right above the brood nest so it gets warmed and is readily available for the bees if they happen to consume all their honey stores (or cannot reach them). It's a very cheap insurance policy to prevent any of my colonies from starving to death.
- **MOISTURE** -- This is actually the biggest problem with overwintering bees in Oregon. Some people put a super on top of the inner cover and fill it with straw or rags to absorb the excess moisture. I find that these sugar cube boards can absorb a ton of moisture and the hole in the front of the board allows excess moisture to escape as well.

Sugar Cube Board Recipe for 10 frame hives (*Use half to 2/3 recipe for 5 frame nuc boards*)

36.5 cups sugar (16 lbs)

1.5 cups water + 1.5 cups real apple cider vinegar (5% acidic) – Do NOT use Apple Cider FLAVORED Vinegar

1/4 tsp Agrilabs Vitamins and Electrolytes Plus (optional)

2 tsp citric acid (optional)

*Note: Ratio 1.5 oz of liquid per pound of sugar; 1 lb sugar = 2.29 cups*

You can get detailed instructions on how to build the sugar cube board frames at these sites:

<https://www.indianahoney.org/uncategorized/making-a-winter-candy-board-to-overwinter-honey-bees/>

[https://www.youtube.com/watch?list=UUxXxNFPOQTyZik\\_Ub546rEw&v=E\\_WLCc21-Hk](https://www.youtube.com/watch?list=UUxXxNFPOQTyZik_Ub546rEw&v=E_WLCc21-Hk)

Below you can see everything you'll need to make your sugar cube boards. It is a 2-3" high frame with 1/4" hardware cloth stapled into the frame. Note that the front of each frame has a 5/8" hole and I make sure that it is left unobstructed by putting a couple of small blocks to hold open the air passage until the sugar dries.

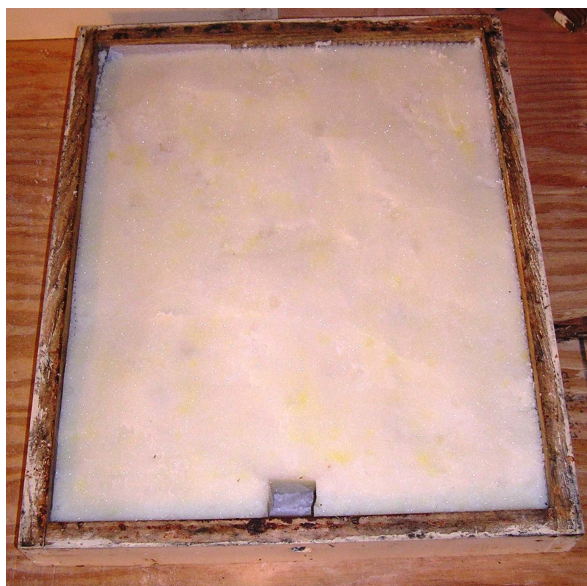


The first year I put down a layer of wax paper underneath the sugar but it doesn't absorb the moisture very well so in the last few years I have used tissue paper (although any light weight non-coated paper like newspaper would probably work). The paper serves to keep loose sugar from raining down into the hive. The paper will soon be moistened and the bees will chew their way right into the sugar cube board from underneath.

I wet the sugar with the vinegar in a big roasting pan mixing it just like mortar, and then trowel it right into the boards. When preparing 10 frame sugar cube boards I find that it is much easier to divide the recipe in half and mix it in two batches.



Then I let it dry for a week or more (sometimes up to 3 weeks) at room temperature so that the sugar mixture gets hard as a rock.



Here's a finished, dried board that is ready to put on a hive. Note that I've already pulled the blocks from the front air passage and you can see the open hole that allows the moist air to exit the hive. You could also make an indentation in the sugar cube for adding optional spring pollen patties. I do NOT add protein patties in the spring because I find that they can result in too much brood too early giving me swarming headaches. Now I only feed pollen patties in August/September to boost the protein levels of the bees for overwintering.

I put the boards right on top of the upper frames, installing spacer sticks across the frames so that I do not squash the bees if I need to pull and then reinstall the candy board for inspection. Then I put my inner cover on top of the candy board. I've found that strong nucs will consume the entire sugar cube by mid February, especially if we have a week or two of sunny weather. If that's the case then I'll put additional sugar cube blocks or fondant into the feeding frame to carry the bees through until the spring nectar flow.

I usually don't pull the sugar cube boards off until April. Any excess sugar cube (especially from hives that had sufficient honey) gets thrown into a pot of heated water to make Spring 1:1 syrup so nothing is wasted.

