

Winter Feeding of Bees: (by Tim Sterrett, February 2011)

A long spell of cold weather in Winter is a reminder to check our honeybee colonies for food stores. After our Chester County bees start raising brood in January, they have extra mouths to feed. Looking at the top of the colony on a cold day when the bees are compacted into a cluster is an easy way to check food stores.

You can look at the top of a colony any time. Just lift off the lid. You can also crack the propolis and slide the inner cover off gently. I keep an empty hive body on top of the colony (with the inner cover on top) so I can look down in without showing them as much motion close to the cluster as they might see without the empty hive body there.

If the bees are clustered on honey down inside the colony, you may not see any bees. On a cold day, if the cluster is at the tops of the frames, they are running out of food.

Sugar syrup contains too much water for bees to be able to use it for food in wintertime. In winter, we feed our bees solid white table sugar. The sugar must be placed on top of the frames where the cluster will contact it if the cluster is running out of stored food. Bees do not leave the cluster to get food in cold weather.

Easy Winter Feeding (cheap insurance):

White table sugar poured onto a single thickness of newspaper on top of the frames. Moisture from metabolism in the cluster will solidify the sugar and the bees will chew through the damp paper and feed on it if they need food.

I no longer lay a five pound bag of sugar with slits in the paper on the under side on top of the frames for feeding. Recently, a colony starved up against the slit bag. And I caught another colony about to starve in the same position. Folding and stapling the corners of a sheet of newspaper, I make a paper tray into which I pour the sugar. Loose sugar that drops onto the cluster will be carried out of the hive as trash.

Below are some recipes from various CCBA contributors --- thanks to Jan Cauffman, Susan Corkran, and Bob Haniwalt. Also included are recipes for warm weather sugar syrup feeding in the spring and fall.

Recipes for Winter Feeding of Bees:

Bee Candy

5 1/3 cup water
20 pounds of sugar
Heat to 240 degrees, stirring frequently
Pour in molds and cool

Bee Candy Microwave Directions:

Into a 2-quart Pyrex container with a cover, add half of a five pound bag of sugar (5 ½ cups) to one cup of water. Do not add Karo syrup. Stir water and sugar before cooking.

First, with microwave temperature probe set to 200 degrees, cook until microwave automatically shuts off when sugar syrup reaches 200 degrees. If no temperature probe is available, cook covered on full power for 5-6 minutes and check for 200 degrees with a candy thermometer.

Second, stir bottom and then cook another five minutes at full power or until it boils. If the Pyrex container has no cover, this can take 6-7 minutes.

Third, let sit for five minutes on the counter --- set a timer for 5 minutes.

Fourth, stir for 30 seconds --- do not stir before the five minutes expires or it may foam up.

Fifth, pour into a flat mold which forms cakes about ½ inch thick so they can be put on top of the frames.

Bee Candy Microwave Directions (Small Amount)

2 cups of sugar mixed with 3/8 cups of water
Stir, then microwave at full power for 2 minutes
Stir, then microwave for another 4 minutes
Let sit for 3 minutes
Pour into molds that have been sprayed with Pam

Bee Candy (Stove Top)

Boil 1 ½ cups of water on the stove.
Add 8 cups of sugar.
Reduce to a slow boil/simmer for 10 minutes, stirring intermittently so as to keep sugar from burning onto the bottom of the pan.
Pour this mixture into four disposable aluminum pie pans, making four cakes ½ inch thick.
Once cooled and hardened, slide the cakes onto the top bars from the rear of the hive. A ½ inch shim between the top bars and the inner cover is needed to make room for the cake.

“Made In the Hive” Bee Candy

Make up a feeder rim, around 1 1/2 to 2 inches. Fill it with dry granulated sugar on top of one layer of newspaper to hold it from falling through. Make sure sugar is directly above the cluster. The excess moisture evaporated by the bees will condense and wet the sugar, and it will harden into a block.

The bees, tasting the sweet newspaper, will chew through it as needed and consume the

sugar. Sugar can be replenished, as needed, but always use a newspaper to keep sugar from falling through the frames. Sugar on the floor of the hives may not be used; it may even be thrown out.

“No Cook” Bee Candy

Stand a five pound bag of sugar on end and open the end.
Pour in ½ cup of water so that the water makes a crater but then also covers the entire top.
Wait for a month for the sugar to solidify.
Cut the block of sugar out of the bag and set it on top of the frames at the top of the colony.

Sugar Water Feeding for Spring and Fall:

Spring Syrup (Small Amount)

2 ½ cups sugar in a one quart jar.
Fill jar with boiling water. Stir until dissolved.

Spring Syrup (1:1 Ratio)

5 pounds sugar in a one gallon jar.
Fill with boiling water. Stir until dissolved.

Fall Syrup (2:1 Ratio)

5 pounds sugar
5 ½ cups water
Heat slowly for 40-50 minutes, stirring frequently.
When cooled, add one level teaspoon of Fumagilin-B to 2 oz. of warm water and then add to the gallon of 2:1 sugar.

Fall Syrup (2:1 Ratio)

5 pounds of sugar in a gallon container.
Pour in enough boiling water to dissolve sugar, using only enough water to dissolve sugar.
Stir. Will fill gallon jar approximately ¾ - 7/8 full.

Miscellaneous Feeding:

Grease Patties:

6 ounces of Crisco by measure
10 ounces powdered sugar
Mix in food processor
Makes four patties