

FEEDING YOUR BEES

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July 2013

This document discusses feeding bees with sugar and/or syrup at various times of the year. Numerous other things can be fed to bees but this document is limited to feeding bees with sugar.

Reasons for feeding the bees:

1. Stimulate the bees to start raising brood in early spring.
2. To start a new hive either by making a split or installing package bees.
3. To help your bees draw out foundation.
4. The bees have insufficient stores for winter.
5. The bees are short on supplies in late winter/early spring (February/March).
6. The bees need medication.

Any time you feed a hive, install an entrance reducer to discourage robbing by other hives in the area. An entrance reducer allows a weaker hive to protect itself.

In spring when you are either wanting to stimulate brood raising or to help a new hive draw out comb foundation, feed the bees a syrup made of one part water and one part sugar by volume. You can feed the bees as necessary with this one-to-one mixture during spring or summer. You don't want to be feeding your bees if you have honey supers on as the bees may store the sugar in the supers.

To make the one-to-one syrup, I place the desired volume of water in a large pan and heat the water to a boil. I then add an equal volume of sugar and stir until the mixture is clear (sugar completely dissolved). Then I remove the syrup from the heat and let cool before feeding to the bees.

After the honey supers are removed in the fall, if your bees need some more stores for the winter, you can feed the bees with a two-part-sugar to one-part-water by volume. This will not stimulate more brood raising but will allow the bees to store food for winter. This mixture can be fed until the daily temperatures fall below 60 degrees F. I generally wait until third week in September to start the fall feeding unless the hive is very light. I want the bees to take full advantage of the fall flowers. I will generally feed the two-to-one mixture from third week in September to late October.

Once there is a hard freeze and temperatures generally stay below 60 degrees during the day, the bees will cluster and they can no longer process the syrup to remove the water and get the excess vapor out of the hive. You don't want a lot of water vapor in the hive as it can lead to mildew or otherwise harm the bees. At this point, switch to bee candy. You will need a candy tray to feed the bee candy. Bee candy can be made according to the recipe on the back of this page.

It is very important to check your hives in February/March as this is when most hives run out of food and starve to death. Generally, I will not open the hive and disturb the bees unless the temperature is above 50 degrees F, I just lift on the back of the hive to check its weight. If it is too light, I will then provide some bee candy.

If you need to provide medication in a syrup such as Fumagilin-B to the bees, follow the instructions provided with the specific medication in preparing the syrup mixture and provide the quantity of the mixture to each hive as recommended by the manufacture. Follow all manufacturers instructions before and during medication of your bees.

As an alternative to making bee candy, some use a mixture of sugar and water in a plastic bag to feed their bees. This method requires that you have either a two inch spacer to place on top of the inner cover or you can use an empty super. To make the mixture, place four pounds of sugar (4 lbs of sugar equals about 2 quarts or 8 cups) in a one gallon plastic bag. Add one (1) cup of water and mix thoroughly. Slit the bag in the form of an X and place the slit over the hole in the top of the inner cover. Put the spacer or empty super over the bag and install the top cover. You can also use a Division Board Feeders in place of the plastic bag. Just mix the sugar and water in another container and place the mixture in a Division Board Feeders. If your Division Board Feeders have a Cap n Ladders, remove and store them until you start feeding syrup again. I tend to think the sugar will get harder in an open Division Board Feeder while it stays softer in the plastic bag.

This document has not been developed as a comprehensive guide to cover all feeding alternatives. It is just some methods which works and is a good starting point. As with most other aspects of beekeeping, as one gains experience and experiments, your methods are fine tuned to fit the beekeepers practices, the needs of the bees and the geographical location of the bee yard.

BEE CANDY USING 15 LBS SUGAR

- 1.5 QT (48 oz) of hot water
- Add 15 lb of granulated sugar to the hot water
- Heat to 240 degrees F over flame – do not stir (I do stir enough to remove lumps of sugar and periodically check to ensure it is not sticking)
- Cool without stirring to 200 – 210 degrees F
- Then stir rapidly to an opaque/boiled starch appearance
- If you want, pour in 1/2 pt. of warmed honey (this encourages the bees to take the candy)
- Stir just enough to incorporate honey
- Immediately pour into trays and let cool

CAUTION: *240 degrees F boiling syrup will seriously burn you if you get in on your skin. Even the 200 degree syrup will give you a serious burn.*

BEE CANDY USING 10 LBS SUGAR

- 1 quart (32 oz) of hot water
- Add 10 lbs of granulated sugar to the hot water
- Heat to 240 degrees F over flame – do not stir (I do stir enough to remove lumps of sugar and periodically check to ensure it is not sticking)
- Cool without stirring to 200 – 210 degrees F
- Then stir rapidly to an opaque/boiled starch appearance
- If you want, pour in 1/3 pt. of warmed honey (this encourages the bees to take the candy)
- Stir just enough to incorporate honey
- Immediately pour into trays and let cool

CAUTION: *240 degree F boiling syrup will seriously burn you if you get in on your skin. Even the 200 degree syrup will give you a serious burn.*

For your information, 1 quart (4 cups) of granulated sugar using a dry measure weighs about 2 lbs.