New Westminster Beekeeper's Association
19 Things to Know about Beekeeping
Module 14 – Processing Creamed Honey

This module was prepared for members of the New Westminster Beekeeper's Association and is intended to be augmented by hands-on experience in a classroom.

Creamed Honey

Creamed honey has two main advantages over liquid honey. Creamed honey does not granulate and infusions using creamed honey are more stable. And some people prefer the texture of creamed honey.

To make creamed honey, there are three main techniques, Dyce method, modified Dyce method, and the whipped method.

Dyce Method

American scientist Elton J. Dyce, applied for a patent in 1935, to alter liquid honey into a creamy state. The method consists of pasteurization, filtering, seeding the honey, minimal stirring, and cooling to 17 Celsius. Instructions for the Dyce method, as published by "The Beekeeping Bible", September 2020:

Instructions for the Dyce Method:

The heart of the Dyce Process is the control of the crystallization process. Control is achieved by the careful adherence to a series of steps:

1. Blend the honey to the desired color, flavor and moisture content.
2. Pasteurize the honey you wish to crystallize by first heating the honey to 120 °F, then strain it to remove large impurities, especially wax particles. Following this initial straining, heat the honey to 150 °F for 15 minutes to dissolve remaining crystals and kill any yeast cells. Strain the heated honey through a fine screen to remove small impurities. Strain honey into honey pail.
3. Cool the honey as rapidly as possible to between 60 and 75 °F in preparation for the addition of seed crystal (Starter). Rapid cooling is essential, as cooling slowly will yield an inferior product. Adding the Starter when the honey is between 60 and 75 °F will produce the finest-grained honey.
4. Add the seed crystal (Starter) to the cooled honey. We suggest a ratio of 1:10 seed crystal to pasteurized, strained honey based on weight. The seed crystals and honey are thoroughly mixed, being careful not to incorporate air into the honey. Caution! Over-stirring can raise the temperature of the honey and damage the seed crystal.
5. Immediately after blending the seed crystals with liquid honey, dispense it into creamed honey cups. Place the jars in the cold room at 55 °F and leave them undisturbed for one week. After crystallization is complete, store the honey below 70 °F, and preferably below 50 °F.

The Dyce method is used by most commercial honey processors in the world today. The honey is soft for the first few months then hardens into a solid mass.

Modified Dyce Method

The modified Dyce Method is being used by hobby and semi-commercial beekeepers who do not want to pasteurize their honey, nor do they want the honey to set really hard.

Process:

- Clean the liquid honey using any common method (settling, straining, mechanical filter)
- Cool the honey to 17 Celsius and add 5-10% creamed honey from Costco, or from your previous batch
- Slow stir for 24 hours (you can have pauses in stirring during this time). This long time frame causes the seed honey to round off the sharp crystalline edges, thus keeping the honey soft for many years
- Pour into jars and store jars at 17 Celsius (cellar floor)

Whipped Method

The whipped method is the easiest and the most popular.

Process:

- Clean the liquid honey using any common method
- Whip the honey using a drill and paint stirring paddle at room temperature for minimum of 15 minutes. During this process, the honey will be infused with tiny particles of air, which act as seed for glucose crystals to bond to.
- Cool the honey to 17 Celsius overnight and whip again for 15 minutes
- Then pour into jars and store at 17 Celsius

What can go Wrong?

- If stirring is too fast, honey will heat up and crystallization will not take place.
- If the honey is too hot (room temperature or above), crystallization will not take place.
- If the honey is stored above 20 Celsius, fructose will rise out of the creamed solution and separate from the rest of the jar, which is not eye appealing (see image below).
- If honey has low moisture content (below 17%), and if stirred for only 5 minutes, and kept at between 15 – 17 Celsius, it will turn super hard.

To fix separated honey, whip it good. It is a messy business, but it works. An alternative fix is to melt it and start the crystallization process over again.

To fix hard honey, try warming it to above 21 Celsius until soft, then stir it.

End.