

HONEY COLLECTION AND EXTRACTION

by D. Askquith-Ellis N.D.B.

If, when you visit the bees to collect the honey, some of the honey is uncapped test for 'ripeness' by shaking the comb. If honey shakes out it is not ready and the frame should be given back to the bees to ripen. If it is extracted with the rest of the honey it may cause fermentation and the loss of all your honey. When the supers are full of capped honey they are ready for extraction but before you can bring them home you must remove the bees from them.

Removing the Bees

This can be done in a number of ways

- Using a bee escape of some sort - Porter, Canadian etc.
- Using a 'fume' board' to drive the bees down into the brood nest
- Brushing the bees from each individual comb
- Using a mechanical blower to blow the bees out of the supers.

BEE ESCAPES

The principle of these is to allow the bees to exit the super but not allow them to return. The board containing the escape is placed below the super/s to be cleared (no more than 2 at a time) and the supers closely covered with a crown board (without holes) or a cloth. It is most important to make sure the supers and covering are bee tight. There is nothing the bees like better than to steal back the honey you think you are stealing from them!

Leave the hive for 24 hrs (12 in the case of a Canadian bee escape board) and when you return, there will (hopefully) only be a very few bees in the supers. In some instances the bees will not leave the super. This is usually caused by

a) the bee escape being blocked b) the bee escape allowing two way passage of the bees c) there being not enough room for the bees below the bee escape d) the queen having got into the supers and eggs and grubs are present. or e) the bees are getting access from the outside through a small gap!

Check all these and correct as necessary.

Remove the 'bee free' supers to your house or your car in the event of the bees being in an out- apiary, ensuring the doors and windows are all closed!

FUME BOARDS

Fume boards use a chemical which drives the bees away from the board and thus out of the super. Two chemicals are in common use, Benzaldehyde and Butric anhydride (BE-GO). Benzaldehyde is oil of bitter almonds and used carefully is quite safe but it may cause some irritation to the skin of some people. Butric anhydride is also safe but the smell is quite objectionable to some people.

A fume board is made to the dimensions of the hive top with 4" deep sides, a piece of absorbent cloth (or sacking) is pinned to the underside. This cloth is lightly doused with the chosen chemical. the crown board is removed from the hive, the bees are smoked moderately and the fume board is placed on top. The smoke makes the bees start to retreat from the supers and the fumes finish the process. It is very quick and effective and requires only one visit to an out apiary.

BRUSHING THE BEES (*editor: not a first choice... harms the bees, makes them mad, etc.*)

Take to the apiary an empty super, a crown board to keep it off the ground, and a cloth to cover it. Place the crown board on the ground beside the hive, the empty super on it and cover with the cloth. Remove the roof and crown board from the hive and smoke the bees. Remove one frame at a time from the supers, brush the bees from it onto the ground in front of the entrance, place the bee free frame into the waiting super and cover. Repeat until you have cleared all the frames, using the newly emptied super for the next box of cleared frames.

MECHANICAL BLOWER

This machine blows the bees out of the super. The supers to be cleared are first removed from the hive and the roof replaced. The supers are placed one at a time on the roof with the top bars facing the back of the hive. The blower is directed from behind the hive blowing a stiff blast through the frames. The bees will be blown to the ground in front of the hive.

Extracting The Honey

There are two main types of extractors - the tangential and the radial. Each holds a varying number of frames and extracts by centrifugal force. The difference lies in the way the frames are held within the unit.

In the radial extractor the frames are held like the spokes of a wheel on the radii of the rotor. The top bar of the frame is furthest away from the centre to take advantage of the slope of the honey cells. Honey flows from both sides of the comb at the same time.

The tangential extractor holds the frames at right angles to the radii and the honey is extracted from only one side at a time. Some of these extractors have a

double sided cage and this swings through 90 degrees if the direction of the motor is reversed. Others (more commonly) are non-reversing and the frames have to be turned by hand. Extract half the honey from the first side, turn and extract all the honey from the second side, turn again and fully extract the first side. This is to prevent the combs disintegrating under the pressure of centrifugal force.

Always load extractors evenly and remember that pollen and set honey do not come out and may cause the extractor to swing about over the floor.

If you are going to sell even a small amount of your honey you must use a stainless steel or food grade polythene extractor. There are many old tin extractors on the market but my personal view is to leave them well alone. Hire the association extractor until you can afford to buy a 'proper' one! This will also give you the experience of at least one sort of extractor which will enable you to make a more knowledgeable choice when you do buy. *(editor: Better yet: find a mentor and try their extractor; for a very small amount of honey ask to extract your honey when the mentor is doing their extracting – remember, cleanup is a chore!)*

The Extracting Room

Honey is incredibly sticky and gets into the most inaccessible place -when choosing a room in which to extract remember this!! For newcomers, the kitchen is the most popular place to extract honey, it has a sink and water supply and hopefully a washable floor (if not put polythene over it). Put a layer of newspaper over the floor and keep plenty handy to cover the spills as they occur.

You will need a knife or special de-capping fork to de-cap the honey and a container in which to catch the cappings and drippings of honey. The knife can be a serrated kitchen knife or a heated knife especially for de-capping. The container should be big enough to catch the cappings without them dropping on the floor and ideally a strainer is in place within it to allow some of the honey to drain from the cappings. A bridge, into the centre of which a nail is driven, is placed over the container and the frame is balanced on the nail whilst de-capping. This allows the frame to be turned easily. -

Cut the cappings from the honey as close to the surface as possible leaning the comb to one side to allow the cappings to fall away from the frame. Place the de-capped frame-into the extractor and continue until it is full. Extract slowly at first and build up speed as the frames empty of honey. Continue in this way until the job is finished.

After extracting the spring flow replace the supers on the hives for the bees to clean and refill. Having extracted the summer flow the supers must be stored for next year. There are two things you can do with these 'wet' supers - that is the supers containing the newly extracted comb. Either replace them on the hives for

the bees to clean up then store in a shed, outside, or on the hives over the crown board ensuring mice cannot get access to them, or store them 'wet' in a bee and mouse proof place. It is said that putting wet supers on the hives in spring encourages the bees to enter them, the down side is that the honey left in them may ferment and smell nasty.

The Honey

Honey should if possible be strained directly from the extractor but if it has started to granulate in the comb it will not go through a fine strainer. In this situation it may be either warmed immediately, strained and stored in buckets or it may be run straight into buckets. In this case, before it is bottled it must be warmed until it becomes liquid, and strained. Of course for your own use you do not have to strain it at all.

Honey that is bottled immediately it has been extracted may set very hard in the jar and be difficult to remove. To avoid this first store it in honey buckets and when it is required warm it gently until it is runny enough to bottle.

It is easy to build a warming box for your honey and it may be warmed by two 40 watt platform to place the honey buckets, under which can be set the light bulbs.

To warm crystallized honey to the point of being able to bottle it, place the buckets in the warming cabinet at a temperature of 90-105 °F for 2 to 4 days. When stirred this will be at a good consistency for bottling and not set hard again (probably). To reduce honey to a clear liquid increase the temperature to no more than 120 °F for 2 days. This will take some experimenting with since larger containers take longer than smaller ones. Do be careful not to over heat honey or it tastes like toffee!

To bottle honey you do need a HONEY GATE set into the side of a bucket at its lower edge. It is no fun to try pouring honey into jars or ladling it with a soup ladle!!