

Honey Processing

Honey processing involves the removal of wax and any other foreign materials from honey.

Honey extractors

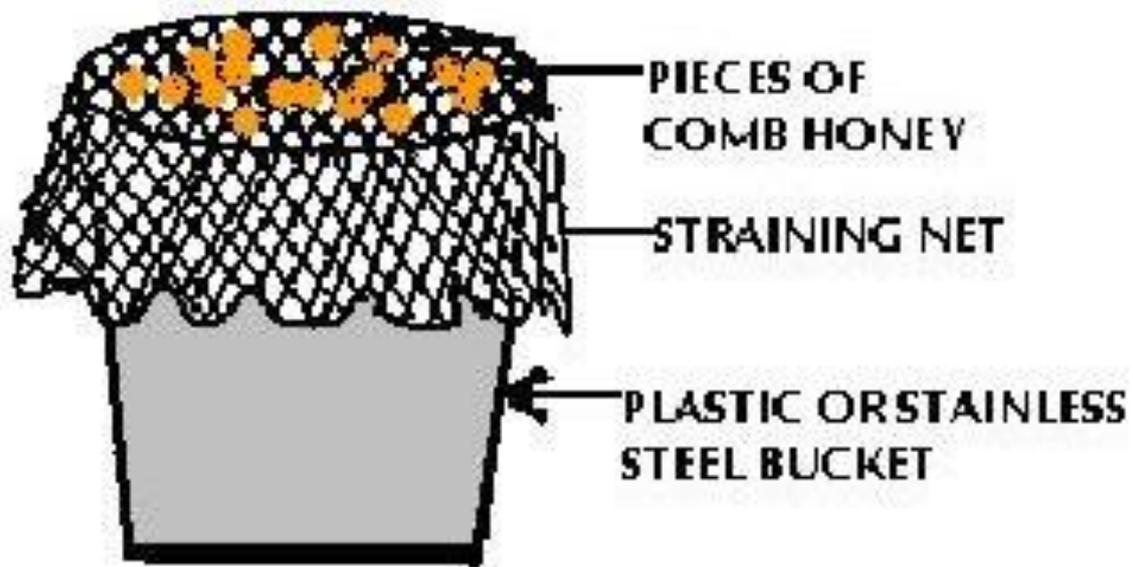
- These can be either electrically or manually driven machines which operate on the principle of centrifugal force.
- Extractors vary in size ranging from small two- frame units to big ones holding up to 85 frames.
- Manual extractors are equipped with either a hand crank or a bicycle chain while the electrical ones are motor driven.



Hand crank manual extractor

Simple Straining Method

- This method is suitable for freshly harvested honey.
- Uncap (remove the thin wax layer that seals the honey cells) the honey and allow it to pass through a straining cloth or net into a clean and dry suitable container.
- Folded the straining net (nylon mostly) once, to form two layers and tie over the mouth of the container.
- Use a wide mouth container to collect the strained honey
- Allow the liquid honey to settle overnight.
- Remove the scum (cream) from the surface of the honey using a spoon before the honey is packed.

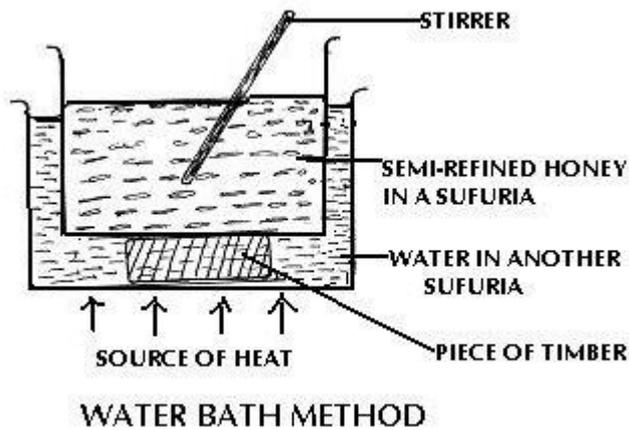


Simple straining method

Water Bath Method

- This is also referred to as batch processing. This method is suitable for semi-processed honey which has been stored for some time and possibly crystallised.
- Honey is first heated in a water-bath (indirect heating), up to about 45°C – 50°C.
- Honey is heated to facilitate both straining and fast handling, secondly, to destroy yeast that may be present and may cause fermentation particularly if the moisture content is above 17%.
- The indirect heating method involves the use of two 'sufurias'; the smaller one containing honey is placed inside a bigger one containing some water and a piece of wood placed at the bottom so that the smaller one does not touch the bottom of the bigger sufuria.
- The honey that is being warmed must be stirred to distribute the heat evenly.

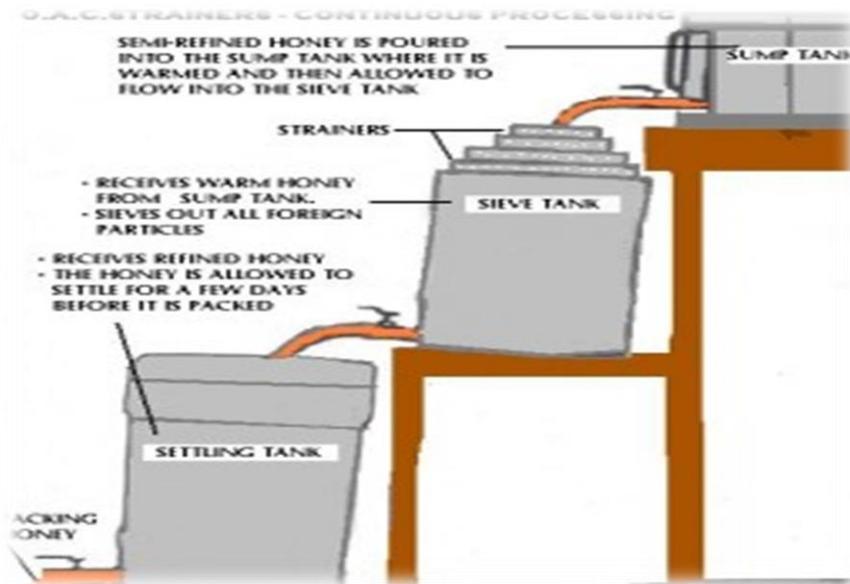
- A straining cloth is then folded twice (forms four layers) and firmly tied onto a clean, dry suitable container as in the case of simple straining method above.
- Once all the warm honey has passed through the cloth, cover the bucket with a lid, and allow it to settle for a minimum of 3 days to allow the scum to collect at the top of the strained honey.



Honey Straining Through Cloth

Bulk Processing

- It is used for large quantities of honey.
- In this method, honey is made to flow through a series of sieves of various sizes.
- The sieves are arranged in a concentric form, the finest mesh being on the outside and coarser on the inside.
- The semi-refined honey is heated to 45-50°C in a sump tank and then flows by gravity through the sieves usually referred to as strainers; into a settling tank and is left there for at least 3 days.
- The scum collects on top of the strained honey, it is then removed and the honey packed.



Pressing Method:

- Honey is forced out of the comb by pressing it out using a honey press.
- This should be done as soon as possible after harvesting.
- After pressing out the honey, it is then warmed using a water-bath and strained.

Honey Blending

- Honey from different sources will have different characteristics.
- In order to bring uniformity, different honeys have to be blended.

- This involves mixing the honeys during processing so that the final product becomes homogenous and have the same physical and chemical properties.

Honey extraction using the centrifuge

- This method is used to extract honey from combs without the destroying of the combs
- It uses especially where honey has been produced using the Langstroth hives
- Some extractors can be used to with combs from the KTBH and even from the log hives

Harvesting and extraction of beeswax

Wax is also a valuable commodity of beekeeping. It is used by the beekeeper to form the foundation, but it also has high commercial value in domestic and international market. The beekeeper should save all old combs and aim to replace about 20 percent of brood combs each year. Capping, wild deserted combs and squeezed combs from honey hunting should be collected for wax extraction. The combs are cut into small pieces and boiled in water for wax melting. The boiling mixture is then poured into a gunny cloth bag strainer. Pressure is applied over the bag with a pair of wooden rollers to squeeze out clean fluid. The liquid is received into a vessel having cold water. As the liquid cools the wax solidifies as a cake at the top of the water. Further purification is done by melting the wax cakes again in boiling water; liquid wax floating over the water is drained into a vessel containing cold water. Pure wax hardens into a cake that floats above the water. It may be also poured into suitable molds made of tin. In modern apiculture, a commonly recommended extractor is solar wax extractor that uses natural sunlight for melting beeswax. It is a rectangular wooden box with a lid of double glass panes. The ratio of the area of glass to volumetric capacity is important and will determine performance. The extractor should have

sloping sides and, when in use, should be positioned with the sloping sides facing the path of the sun. The extractor contains a metal tray with sloping sides in which to capture the wax. The molten wax gets filtered by the strainer as it flows down from the tray into a receptacle below. This lower receptacle contains water. Wax floats on the water and solidifies