

Sustainable Agricultural Livelihood Restoration, Rehabilitation and Resilience in Kenya Training Manual

3.1.7 SUB-MODULE 7: HONEY HARVESTING AND PROCESSING

Honey harvesting

The principal idea in harvesting honey is identifying the comb with ripe honey, free it of bees and take it away for processing. This entails shaking the bees off the combs, young bees normally cling on the comb therefore they are brushed off using a bee brush.

For Langstroth hive one can also use the bee escape (clearer board). Fix the bee escape between the brood box and the super. After 24-48 hrs all the bees will be cleared off the honey supers. The supers can be removed to extract honey. Ensure the clearer board is removed and the supers replaced with empty ones.

Harvesting procedure

- Follow the same procedures as in hive inspection and once the combs with honey have been identified harvest immediately by removing combs with ripe honey (a comb that is fully or three quarter capped) Capped honey from movable frames (Langstroth hive) is uncapped and placed into a honey extractor in order to extract the honey, after extraction the comb is returned into the super box so that bees can continue storing honey.
- Cut off the comb using a sharp knife or hive tool into a clean and dry bucket or other suitable container that has a tight fitting lid. The bees that cling on the surface of the comb honey must be brushed off using a bee brush before cutting it off. It is advisable to carry an extra honey harvesting container.
- Replace the lid of the container immediately so as to keep off bees. This is because during harvesting there is always a danger of robbing of honey by bees all over the apiary. In the case of harvesting from Langstroth hive, keep the honey supers well covered once they are removed from the hive.
- Combs with brood and pollen should not be removed during harvesting.
- Replace the top bars back into the hives and also leave some honey for the bees. It is also good practice to extract the honey from the combs with immediate effect since freshly harvested honey drips out of the cells more easily than the one that has been stored.

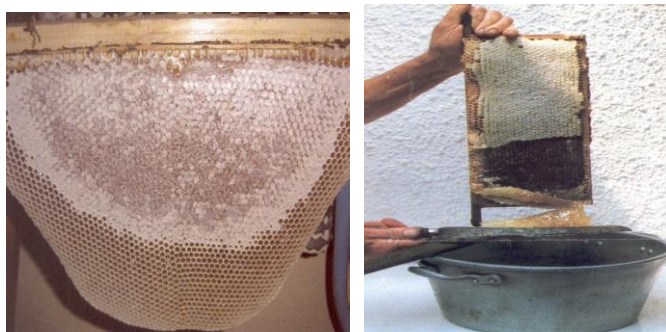
Honey harvesting from langstroth hive

- Open top hive cover/lid and remove the honey loaded super.
- Put an empty super on top of brood chamber with queen excluder.
- Place the clearer board on top of the empty super ensuring that the opening is facing upwards. Best time for putting clearer board is early morning then harvesting the next day early morning.
- Then superimpose the loaded super on top of empty super with clearer board. Replace the hive cover/ lid.
- Open top hive cover/lid and remove the honey loaded super.
- Put an empty super on top of brood chamber with queen excluder.
- Place the clearer board on top of the empty super ensuring that the opening is facing

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upwards. Best time for putting clearer board is early morning then harvesting the next day early morning.

- Then superimpose the loaded super on top of empty super with clearer board. Replace the hive cover/ lid.
- (i.e. the next day) remove the honey loaded super (which now has very few bees) and the clearer board then replace the top cover/lid.
- After honey extraction the frames are returned into the hive (super) so that bees can continue storing honey. Harvesting can be done in three weeks to a months' time if nectar producing flowers are still in bloom.

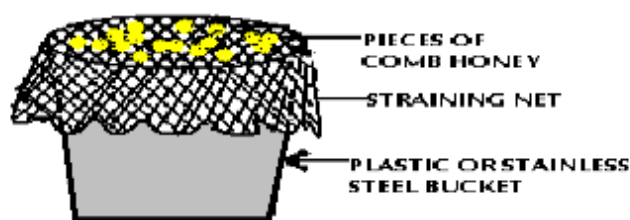


Ripe honey-capped 2/3rd of the comb uncapping honey comb for processing

Honey processing

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

Simple straining method: This method is suitable for freshly harvested honey. It involves the uncapping (removal of the thin wax layer that seals the honey cells) of the honey and allowing it to pass through a straining cloth or net into a clean and dry suitable container. The straining net (nylon mostly) is folded once, to form two layers and tied over the mouth of the container. The use of a wide mouth container to collect the strained honey is very efficient and faster since the honey will have a larger surface area to filter through. The liquid honey is then allowed to settle overnight, scum is then removed from the surface of the honey using a spoon before the honey is packed.

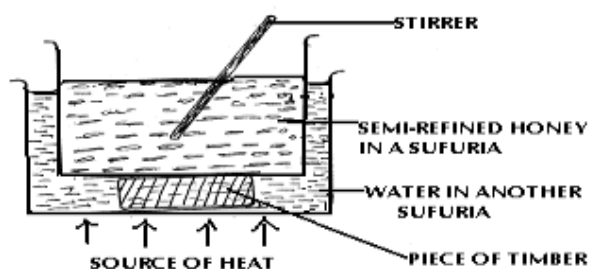


Simple straining method (drip)

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 45-50° C. Honey is heated to facilitate

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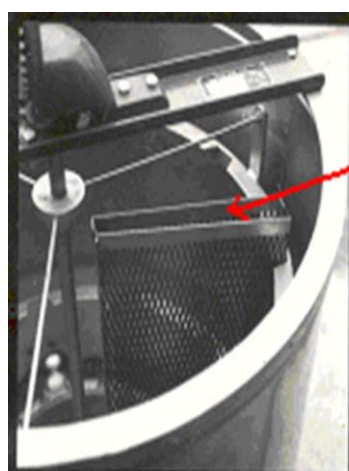
both straining and fast handling, secondly, to destroy yeast that may be present and may cause fermentation particularly if the moisture content is above 17%. The indirect heating method involves the use of two 'sufurias'; the smaller one containing honey is placed inside a bigger one containing some 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.



Water bath method

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. These 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.

Honey extraction: This is a method used to extract honey from combs using a centrifugal force. The honey comb is uncapped using an uncapping fork or a warm knife. The frames are then placed vertically in an extractor which can either be manual or electric. Centrifugal force is then used to force honey out of the combs. The honey is then sieved into a storage container and allowed to settle overnight. Honey from top bar hives and traditional hives can also be extracted using this method by placing the combs in special comb holders.



COMB HOLDER



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Honey extractor

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 from the same geographical area could be blended. This involves mixing the honeys during processing so that the final product becomes homogenous and have the same physical and chemical properties.