





# HARVESTING AND PRE-PROCESSING HANDLING OF HONEY



#### HARVESTING

Harvesting honey from beehives is a delicate process that requires care and attention to ensure the well-being of the bees and the quality of the honey. This pamphlet provides a step-by-step guide to honey harvesting.

## (i) Preparation

Wear protective beekeeping gear, including a bee suit, gloves, veil, boots and smoker, to protect yourself from bee stings.



Preparing for honey harvesting. Source: Mercy kipkurui

Gather all necessary harvesting equipment, including a hive tool, bee brush, uncapping knife, and storage containers.

# (ii) Prepare the Hive

Begin by smoking the hive entrance and the top of the frames to calm the bees and minimize disruptions.



Smoking the hive. Source: Mercy Kipkurui

Remove the outer and inner covers of the hive, as well as any excess propolis or beeswax sealing the boxes.

# (ii) Inspect the frames/bars

Carefully remove the frames/bars from the honey supers, ensuring minimal disturbance to the bees.





Removal and inspection of bars/frames. Source: Mercy Kipkurui

Inspect each frame/bar for capped honey cells, which indicate that the honey is ripe and ready for harvest.

# (iv) Choice of honey containers

Food-grade buckets with tight-fitting lids are commonly used during honey harvesting. Select clean, dry, and food-grade containers. Any moisture in the container can promote fermentation or spoilage of the honey.



Food grade buckets for honey harvesting and storage. Source: Joseph Kilonzo

Seal the containers tightly with lids or caps to prevent air, moisture and contaminants from entering. Ensure that the lids fit securely to maintain the freshness of the honey.

## (v) Leave Adequate Honey for Bees

Ensure that enough honey is left in the hive (Super/honey chamber) to sustain the bees throughout the winter months.

#### (vi) Clean-Up

Clean and sanitize all harvesting equipment, frames, and hive components to prevent the spread of diseases and maintain hive hygiene. By following these steps, the beekeeper can harvest honey from beehives efficiently while ensuring the health and well-being of the bee colonies.

#### PRE-PROCESSING HANDLING OF HONEY

After harvesting honey, proper storage is essential to maintain its quality, prevent crystallization, and ensure its long-term preservation before processing. Here are some key guidelines for honey storage at this stage.

#### (i) Container Selection

Use clean, dry, and food-grade containers made of glass, stainless steel, or food-grade plastic for storing honey. Avoid using containers made of reactive metals or materials that may leach chemicals into the honey such as containers previously used for paints and other chemicals.

# (ii) Cleanliness

Ensure that the containers and lids are thoroughly cleaned and sanitized before filling them with honey to prevent contamination.

#### (iii) Temperature and Environment

Store honey in a cool, dry place away from direct sunlight and sources of heat. Optimal storage temperatures range between 10°C to 21°C. Avoid storing honey in the refrigerator, as it can accelerate crystallization.

## (iv) Sealing

Ensure that the containers are tightly sealed to prevent moisture absorption and contamination by airborne particles, insects, and microorganisms.

#### (v) Avoid Moisture

Honey has a low moisture content and can absorb moisture from the air if exposed to humid conditions. Keep the storage area dry to prevent honey from fermenting or spoiling.

#### (vi) Crystallization Prevention

While crystallization is a natural process, some types of honey crystallize more quickly than others. To prevent crystallization, store honey at slightly elevated temperatures (between 21°C to 27°C) and gently warm crystallized honey jars in a warm water bath to liquefy them.

# (vii) Labeling

Label each container with the date of harvesting, type of honey, and any other relevant information to track its freshness and origin.

# (viii) Avoid Odor Contamination

Store honey away from strong-smelling substances or chemicals that may impart undesirable odors or flavors to the honey.

## (ix) Inspect Regularly

Periodically check stored honey for signs of crystallization, fermentation, or any other changes in quality. Remove any crystallized honey and gently warm it to return it to a liquid state if desired.

By following these storage guidelines, beekeepers can help preserve the flavor, texture, and quality of harvested honey for an extended period, ensuring a delightful and enjoyable product for consumption after processing.



**Compiled by:** Kasina M.J, Toroitich D., Mulwa J.M., Onyango I.A., Guantai M.M., Ndung'u N.N., Kinyanjui J.M. and Kimani C.W.

#### For further information, contact:

Institute Director

Apiculture and Beneficial Insects Research Institute

P.O. Box 32-30403 MARIGAT

Director. ABIRI@kalro.org

Editors: Nyabundi K.W., Mukundi K.T., Omondi S.P., Maina P., Wanyama H.N., Mugata R.K. Mungube E.O., Nyambati E., Changwony K., Ilatsia E. and Kasina J.M.

Design and layout by Emma. Nyaola

KALRO/NAVCDP/Apiculture/ Pamphlet/ No.029/2024