



REPUBLIC OF KENYA



# TYPES OF HONEY BEE HOUSING (APIARY)



## **TYPES OF HONEY BEE HOUSING (APIARY)**

An apiary is a yard or structure where beehives of honey bees are kept for economic reasons. Bee housing comes in many sizes, forms and designs.

### **Siting an apiary**

Factors to be considered when selecting bee housing locations include source of forage, water, enough space for both the bees and the beekeeper, accessibility and protection from predators. Bees also need proper shielding from extreme weather conditions (wind, sunlight and rain).

### **Benefits of Bee Housing**

Bee housing ensures effective control of pests & predators, enhance security of the hives and also prevents theft and vandalism by people. It also reduces conflict between bees and humans, their livestock and wildlife.

In addition, the roof catchment helps to harvest rainwater for bees and pasture. Most bee colonies abscond during the dry spell in the ASALs due to high temperatures, inadequate or reduced pasture/forage and lack of water. The upsurge in temperatures in these regions has been attributed to climate variability and climate change. Housing helps to reduce the effects of heat on bees.

### **Choice of materials for bee housing**

The beekeeper should use locally available materials, which are not costly with less effect on the environment while ensuring quality and safety of bee products. Bee housing does not have to be expensive. Locally available thatching material may provide better heat moderating shed than iron sheets.

#### **1. Permanent housing for bee hives**

This is the establishment of suitable modern bee houses adapted to either cooler or warmer weather conditions. It includes installation of ideal and modern bee hives, housed in a permanent structure fitted with corrugated iron sheet roofs. This house type allows modest water harvesting and monitoring of colonization and occupancy rate.



*Permanent bee houses (Source: Itambo Malombe)*

## **2. Semi-Permanent housing for bee hives**

This is a modified structure, constructed on a concrete floor with a wooden and or metallic framework and iron roof that houses the bee hives which are placed on shelves. The shelves can be made of metal or wooden material.



*A semi-permanent bee house (Source: M Kasina)*

## **3. Temporary housing technology for bee hives**

This involves construction of a housing structure for beehives using locally available materials. It is made of wood and mud walls, while the roof is thatched with grass. The hives are placed on shelves made from locally sourced timber.



*A temporary Apiary house (Source: <https://anthrome.wordpress.com/2009/10/08/bee-house-central-kenya/>)*

#### **4. An open bee housing**

This involves installing beehives with waterproof iron covers in open natural habitats that consist of suitable flora and ambience. The beehives are placed on a single metal stand and encased in a metal frame. Fencing of the apiary may also be necessary to reduce livestock and wildlife interference.



*An open bee housing (Source: Itambo Malombe)*



*An open bee housing (Source: Mercy Jeptarus)*

## **5. Use of multiple trees as a bee housing**

This is where multiple trees hosting one or multiple hives are under a single fencing and common entry. This offers more protection against unwanted access thus reducing honey theft challenges, management of human and animal-bee conflict and reduces establishment costs. This also enhances tree conservation and provides a better micro-climate for hives, where intense sun heat is minimized.



Figure 6.4: Multiple tree bee housing (Source: Caroline Kamani)

## 6. Use of a single tree as bee housing

This is the most commonly used bee housing in Kenya and is preferred based on traditional beekeeping over a period of time. It involves the installation of beehives on a tree branch. In areas with suitable flora and ambiance, where one tree could accommodate one or more hives.





*Hives installed on a tree (Source: Joseph Kilonzo)*



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