

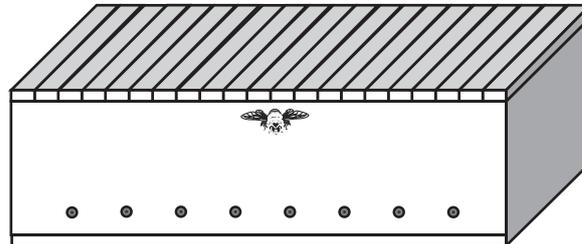


ARC • LNR

# BASIC BEEKEEPING

There are many reasons why it is profitable to keep **bees**:

-  Honeybees make honey
-  Honey can be used in baking, cooking, to sweeten coffee or as a spread on bread.
-  Mead (an alcoholic drink) and honey beer are made from honey.
-  Honey is used in some medicines such as cough mixtures.
-  Wax from the honeycombs is used in candles and polish.
-  Honeybees carry pollen (powder formed by flowers) from one plant to another. The pollen is needed so that the flowers can turn into fruit.



## The hive

The beehive is the home of bees.

Bees can be kept in ordinary hives or top-bar beehives.

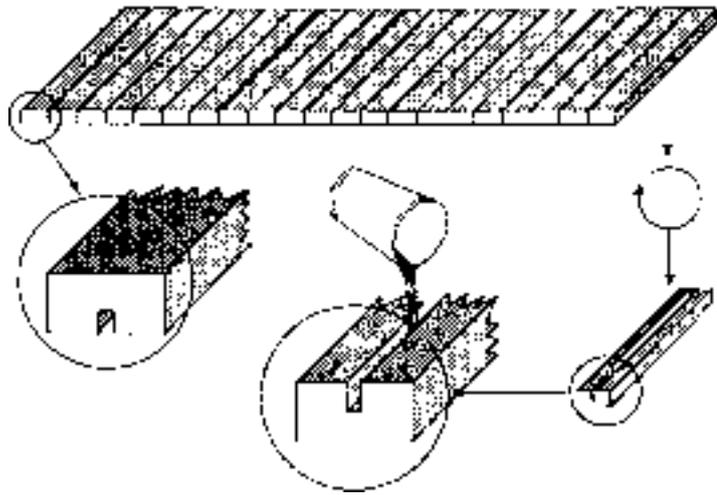
In an ordinary beehive there are spaces between the bars. An ordinary (Langstroth) hive is more expensive to make or buy and consists of many different parts. A top-bar beehive is much cheaper to build and maintain.

In a top-bar beehive there are no spaces and the beekeeper can remove one or two top-bars to inspect the hive or to take out the honey.



## How to make a top-bar beehive

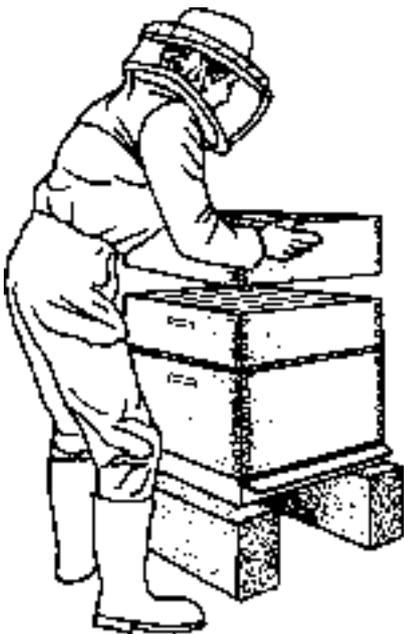
- ✈ Use a wooden or cardboard box.
- ✈ Make a number of small openings near the bottom on the side of the box so that the bees can go into the box.
- ✈ Make enough bars (top-bars or roof-bars) from wood or cardboard to put on top of the box.
- ✈ Each top-bar must be 32 mm (about 2 fingers) wide. This is very important. In the nests which bees build in nature the middle of one comb is 32 mm from the middle of the one next to it.
- ✈ Melt wax and pour a thin line of wax along the middle of each top-bar. This must be done on the side which will be inside the box. The bees will then start building their combs on the wax line and the combs will look neat.
- ✈ Now put the bars next to each other on top of the box.
- ✈ Put the hive a safe distance away from people or animals on a stand or on bricks or hang it from a tree.



## How to inspect beehives

You will sometimes want to look into the hive to see if the combs are full yet or if everything is all right.

- ✈ Remove 2 or 3 top-bars at one end of the hive.
- ✈ These bars will usually not have bees or combs on them.
- ✈ The opening will be wide enough so that you can lift the other top-bars to inspect the combs without damaging them.
- ✈ Be sure to keep the bars level all the time so that the combs hang down and do not break off.
- ✈ Be careful and work slowly so that you do not get stung too often. The bees will come back and start working again soon.
- ✈ You will be stung sometimes, but if you work carefully, it will not happen often.
- ✈ Puff a little bit of smoke into the opening to drive away the bees in the gap.
- ✈ You can put a net over your head and wear a hat for protection.
- ✈ You can put on gloves to protect your hands against stings.
- ✈ Wear trousers and a long-sleeved shirt to protect your arms and legs.



## How to take out the honey

It is easy to take honey from a top-bar beehive.

- 🐝 Take a top-bar with a full (capped) comb from the hive.
- 🐝 Hold the top-bar over a clean bucket and twist the comb.
- 🐝 The comb will break off into the bucket.
- 🐝 Close the bucket immediately.
- 🐝 Put the top-bar back onto the hive.
- 🐝 In the same way take out all the other full (capped) combs.

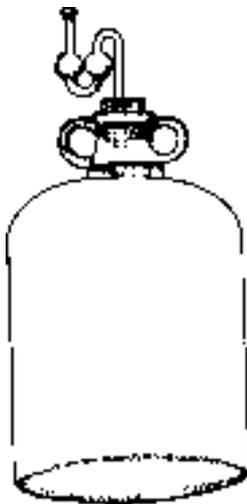
## What to do with the combs and the honey

- 🐝 At home put the undamaged combs aside to sell them later.
- 🐝 Keep the damaged combs for your own use.
- 🐝 If there is pollen in the combs you can eat it too as it is healthy and tastes nice.
- 🐝 Chop up old becombs. Separate the honey from the combs by filtering the honey through a clean, coarse cloth.
- 🐝 Do not throw away the wax. You can
  - 🌻 use it to make candles;
  - 🌻 sell it to people who make candles;
  - 🌻 or sell it to people who repair shoes, women who make clothes and furniture makers.



## Mead

You can also use the honey to make an alcoholic drink called mead.



### Recipe for mead

You will need the following:

- 1 litre (4 cups) honey*
- 2,3 litres (5 cups) water*
- ½ teaspoon ammonium phosphate*
- ½ teaspoon urea*
- ½ teaspoon citric or tartaric acid*
- ½ teaspoon cream of tartar*

*Put all of these in a glass bottle which has a fermentation valve. The drink will be ready in 6 to 8 months.*

## How to get the wax

In order to use or sell the wax you must first separate the wax and the honey. For this you can make your own cheap wax separator, as shown in the picture.

Take 2 boxes, one a little smaller than the other.

Crumple newspapers or any other paper and put them in the bigger box.

Put the smaller box inside the bigger box so that the newspapers are under and around the smaller box.

Put a plastic tub in the small box.

Pour some water into the tub.

Put a paper towel over the tub and tie it with string to the tub so that it stays in position.

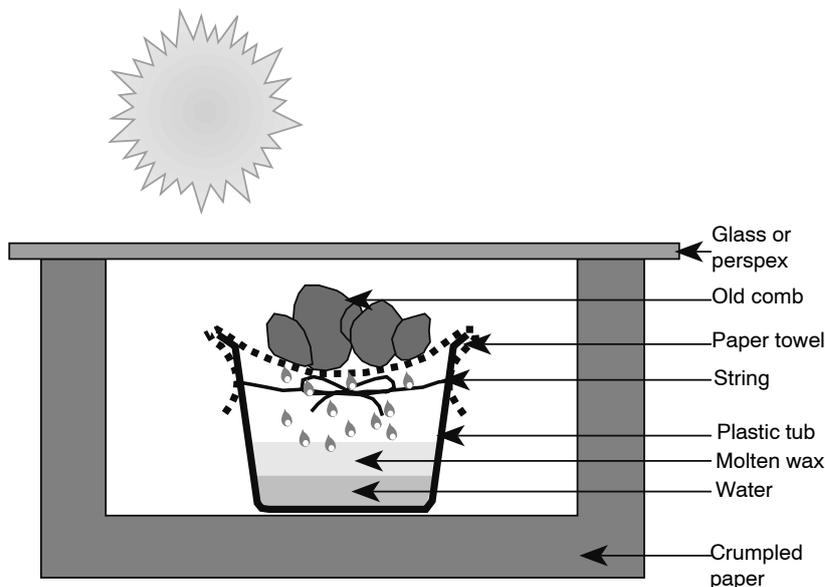
Put the old, chopped-up combs on the paper towel.

Put a plate of glass or perspex on the big box.

Put the big box with everything in it in a sunny spot.

The sun will heat the glass or perspex and the combs will melt.

The wax will filter through the paper towel and drip into the water where it will cool down and set.



If you wish to find out more about beekeeping, write to:  
Sidwell Banne  
ARC-Plant Protection Research Institute  
Private Bag X134  
Pretoria 0001  
You can also phone Mr Banne at telephone number  
(012) 319 7112 or send a fax to (012) 323 5275

*Compiled by the National Department of Agriculture and  
the Plant Protection Research Institute of the ARC*

*Printed and published in the Republic of South Africa by the National Department of Agriculture and  
obtainable from the Resource Centre, Directorate Communication, Private Bag X144, Pretoria 0001  
1996*