

BEEHIVES

Bees will naturally build their hives in a location providing natural protection from predators: inside a hollow log or on the side of a cliff. The problem with these locations, from the point of view of a conscientious and honey-hungry human, is that the honey cannot be extracted without (1) a lot of difficulty, and (2) a great deal of damage and stress to the bees and their hive. Subsequently, a beekeeper will keep a colony of bees in a specially designed beehive, and these come in many different shapes and sizes, depending on your needs.

It is important to pick the beehive that will most suit you, because each type of hive will require a different amount of care.

Most hives contain all or most of the following components:

- A **roof**
- A **cover board** (to keep the bees inside the hive and to provide insulation)
- **Supers** (containing **frames** upon which the bees build honeycomb- added progressively as each is filled with honey)
- A **brood chamber** (containing **frames** upon which bees store pollen and nectar and the queen lays her eggs)
- A **queen excluder** (placed between the supers and broodbox to stop the queen laying eggs on a **super frame**, making honey collection more difficult)
- All year round **insulation** (very important!)
- An **entrance** (for the bees!)
- A **floor/ bottom board**



Types of Hive:

The National Beehive



The British National Hive is the most popular bee hive in use in the UK. The reasons for its popularity include:

- Size of brood chamber is well suited to the UK climate
- Easy to assemble
- Economical to buy
- Efficient in use
- Interchangeable parts with Modified Commercial hive and WBC

The Brood Chamber contains 11 British Standard long lug brood frames, either 'normal' frames (DN1), or self-spacing ones (DN4). Whilst the Supers of the National Hive hold British Standard long lug shallow frames, again

either normal (SN1), or self spacing frames (SN4) frames.

However, many beekeepers now view the brood box of the National as too small for the laying activity of modern strains of queen bee, so many beekeepers operate the National with a brood box and one super. This is sometimes called "a brood and a half".

The Commercial Beehive

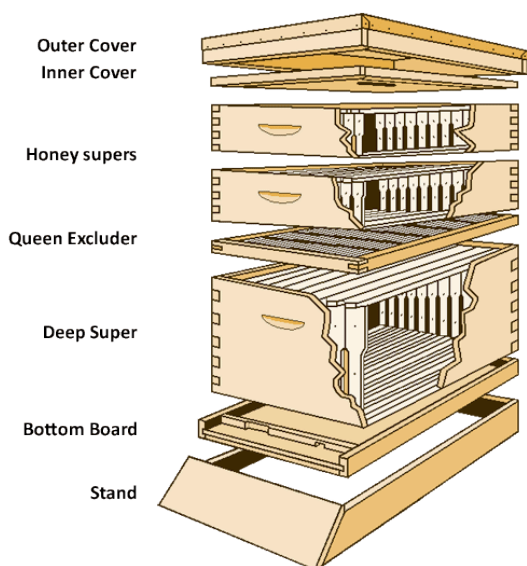
The Commercial hive has the same external dimensions as the National hive. However, because it lacks the rebates of the National, the Commercial is able to carry larger frames. Both super and brood boxes are picked up using small hand-holds cut into the wall of the hive- this can make them hard to manoeuvre when filled with honeycomb.



The Langstroth Beehive

The Langstroth dates back to 1850 and was the first to include removable frames. This hive is the most commonly used hive for commercial and hobbyist use in North America and Australia. Selling points include:

- A simple design, which makes it much easier to maintain.
- Ample space between supers and brood chamber- means less worry about squashing bees after inspection!
- A brood chamber which holds only 10 frames, yet the size of the frames is greater than that of the National or WBC, and so the total amount of cells in the honey comb is higher in the Langstroth than in other hive designs.
- A 2 inch extension to the landing strip in front of the hive entrance: surely a comfort to nectar and pollen-laden landing bees!



The WBC Beehive

The WBC Beehive is arguably the most aesthetically attractive of the different types of bee hive. It is the classical beehive, the one often depicted in honey jar labels.

- Like the National hive, the WBC hive uses British Standard long lugged frames: which is great for inter-compatibility between hives.
- However the WBC brood chamber only holds 10 frames as opposed to the 11 held by the National which means that it has one of the smallest brood surface areas going- meaning less bees, less chance of survival, and less honey.

- The hive design has an outer and inner wall which makes maintenance particularly cumbersome. They are also cumbersome to transport in bulk.

N.B. Although there are published standards for the WBC hive design, there are still many different dimensions depending on what region the hive is from, eg the UK or US. So checking compatibility before you buy is important.



The Warré Beehive

The Warré hive, also known as the "The Peoples Hive" is similar in design to the Langstroth hive. The hive body is still made out of vertically stacked boxes; the biggest difference is that frames are discarded in favor of 'top bars' (straight horizontal struts).

- Takes the bees' need for a warm and scent and germ free atmosphere into account to a much greater extent than more conventional (frame-based) hives.
- Is becoming popular with the sustainable beekeeping movement.

YouTube, as ever, provides lots of helpful videos; see this one for a demonstration of the Warré hive: <http://www.youtube.com/watch?v=yA7BdzNZOT0>.

The Top-Bar Beehive

A top-bar beehive has bars from which the honey bees attach and hang wax comb, an array of hexagonal (six sided) cells. Unlike the full four-sided frames used in a Langstroth hive, the comb on bars cannot be centrifuged to extract honey and then reused. This characteristic might lead to a lower production of honey, but the honey from clear yellow comb (comb that has not been used for brood) is of the highest quality and can be used as in-comb honey product, highly prized by some users in preference to liquid honey. This may be spread on hot toast, melting the wax, or may be chewed as a treat, releasing the honey.



- Unlike the Langstroth (stacked box) hive, inspections can be carried out with far less disturbance to the bees since only a small amount of the hive is exposed at any one time.
- Inspections and harvesting requires much less heavy lifting.
- Because there are no supers to store in winter, storage requirements when compared to conventional hives are significantly less.
- Produces less honey than conventional hives, but the quality of in-comb honey, many argue, is second to none!
- Cheap
- Combs are more fragile, especially in cooler weather. The fragile combs can make transporting hives difficult when they have a lot of honey in them.
- Requires a higher level of knowledge about bees to be an effective beekeeper.

However, because these hives are not traditional, expert advice is often less available as there are less experienced beekeepers practicing with them!

And the Darlington, Smith and Beehaus beehives are all good alternatives too!

Make Your Own!

Alternatively, you could make your own beehive! They can be easily made with wood, standard wood working tools, and good DIY skills. It is important to remember that the internal and height dimensions are fairly critical, so it is recommended that you follow a pre-designed plan. Free plans are available from the Beesource.com at <http://www.beesource.com/build-it-yourself/>, biobees.com at <http://www.biobees.com/build-a-beehive-free-plans.php>, and Info Barrel.com at http://www.infobarrel.com/Build_a_Top_Bar_Beehive_from_Pallet_Wood, amongst many other 'bee' sites!