

## Honey Bees

**H**oney is a sweet liquid made by honey bees. Humans have eaten honey for thousands of years and it is one of the oldest forms of food production.

On warm, sunny days honey bees are out collecting nectar (a sweet liquid) and pollen from flowers. Back at the hive they turn the nectar into honey, which they store for winter feeding or when food is scarce. The pollen is used to feed the young.

While collecting pollen and nectar, bees help to fertilise flowers. The pollen collects on their legs and as they move from flower to flower this pollen fertilises the flowers.

Bees live in a colony made up of a queen, worker bees, drones, nurse bees, guard

bees and brood (the young). Every bee has a job.

New hives are formed when bees swarm. In spring a hive produces a number of queen bees. The old queen will leave the hive, taking half the worker bees with her, to find a new home. Beekeepers can capture these swarms and encourage them to make their home in hives. Though honey bees make hives in the wild, humans have semi-domesticated some honey bees so that they produce honey in specially constructed hives, making collection easier.

Usually a hive is a set of boxes containing frames, which have been filled with a sheet of wax. The bees build honeycomb on this wax. Honeycomb is hexagonal-shaped (six-sided) wax cells, in which they store the honey. The bottom box of the hive is called the brood chamber and contains the queen bee and most of the other bees. The upper boxes, called supers, are where the honey is stored.

Beekeepers check the hives regularly and harvest the honey in the summer months, when the bees make honey in abundance. They make sure that enough

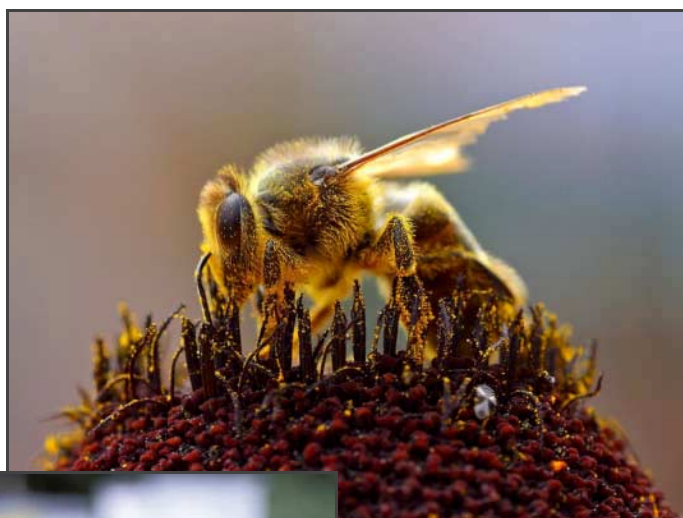


Photo courtesy PPhoto.org



Above: The cells in the honeycomb are filled with honey and sealed with a layer of wax. Top: A honey bee collecting pollen from a flower.

honey remains in the hive to feed the bees over the winter. As well as honey, beekeepers collect beeswax, which is used to make candles, furniture polish, cosmetics and for model-making.



Above: Honey.

### Who is who?

A bee colony, contains about 60,000 bees, with each bee having its own job.

The queen is the biggest bee in the hive and lays all the eggs. She is unable to sting and also does not feed herself, so she is pretty helpless.



The female worker bees do all the work in the hive. They keep the hive cool and clean and collect pollen and nectar to feed the queen and the other bees. There can be as many as 60,000 worker bees in the hive and all are able to sting. Unfortunately if they do sting, they will die afterwards.



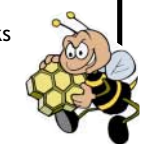
The drone is a male bee that mates with the queen. Drones don't do any other work in the hive.



Nurse bees look after all the young bees, which ....



Guard bees protect the hive from attacks by other bee colonies.



Above: An area where beehives are kept is called an apiary. While working with bees, the beekeeper uses smoke to calm the bees. They wear special gear to protect them from bee stings, including a hat and veil on the head, white overalls and gloves.