

How do Honeybees make Honey?

A honeybee starts the honey making process by visiting a flower. With luck, the flower contains nectar, and the bee sucks some of the nectar up with a little straw (a proboscis) built into its mouth. Most flower nectars are like sugar water; there is a little sugar mixed with water. Nectars can contain other beneficial substances as well. To make honey, two things happen.

The first thing is it uses enzymes. One enzyme that bees produce turns the sucrose in the nectar into glucose and fructose.

The second thing uses evaporation to get rid of the extra water. Most of the moisture has to be evaporated, so that honey is only about 18 percent water. Bees evaporate the extra water by putting little drops of nectar in the hive and fanning it with their wings.

The bees store their honey in the wax comb they have made in the hive.



To find out more about bees you can visit the British Bee Keepers Association website at:

<http://www.bbka.org.uk/>

To find out more about our local association go to:

northsomersetbeekeepers.org/

Amazing fact: Beeswax is produced by the bees. Bees have special glands on their stomach that secrete the wax into little wax pockets on their stomach. The bee takes the wax and chews it and shapes it to make honeycomb.

Avon Beekeepers Association
Blagdon and Clevedon Branch

WHAT DO YOU KNOW ABOUT HONEY BEES?



What are honey bees?

Honey bees are insects. The honeybee lives in groups called a colony. They first evolved about 35 million years ago in tropical Africa and because honey is so popular, bees now live all over the world.

What is a bee's life cycle?

The queen lays each egg in one cell of the honeycomb. Each egg hatches and a little worm-like larva crawls out. The worker bees feed pollen and honey to the baby larva. Soon, it spins a web blanket inside the cell and becomes a pupa. After 16 to 24 days, a fully grown bee climbs out of the cell. They live between 3 to 6 months depending on the time of year and food available.

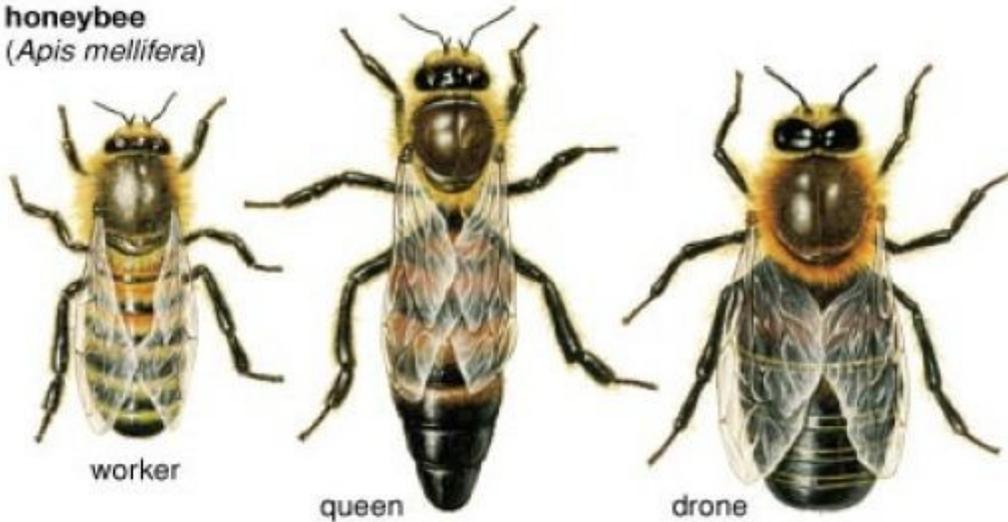
Amazing fact: Bees are the only insect in the world that make food for humans.

Amazing fact: A beehive in summer can have as many as 50,000 to 80,000 bees. A bee must collect nectar from about 2 million flowers to make 1 pound of honey.

Are all the bees in the colony the same?

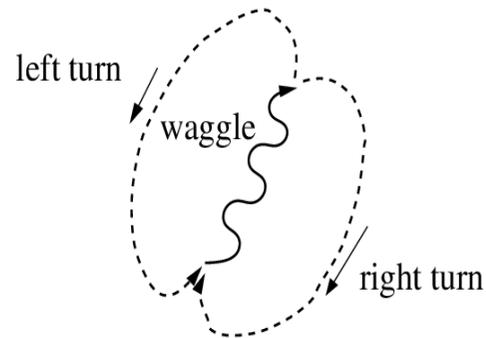
No. There are different bees for different jobs. Every colony has one queen, which is the largest bee. The workers are female bees and are the smallest in size but the largest in number. There are also male drones and the brood is made up of eggs, larvae, and pupae.

honeybee
(*Apis mellifera*)



How do bees communicate?

Like other insects, honeybees communicate using many different chemicals and odours. Honeybees can direct other bees to food by dancing. The movements tell them the location and direction of the food.



Amazing fact: Honey was found in the tombs in Egypt and it was still edible! Bees have been here around 30 million years.



What is a hive and how does it work?

The hive is the colony's home or nest. The outside is often a man-made box like this one, and the inside is made from wax, which the bees produce themselves. The queen and most of the bees live in the bottom of the hive in the brood chamber. The top contains the honey.

What is the hive's life cycle?

As the number of bees in the hive increases, some of the bees leave to set up a new colony in a new location. They form a big group known as a swarm. The queen leaves the colony and about half of the worker bees and drones follow her in search of a new home. She is usually replaced with a new queen after a couple of weeks. Another new queen is left behind with the other half to continue the old colony.



Why do bees sting?

A honeybee will rarely sting away from the hive, except when stepped on or roughly handled. If a bee is buzzing around you, she may smell perfume, soap, or hair spray and think the smell is nectar or food. She will check you out to see if she can find the nectar, but if you stand very still, she will realize there is no nectar and go away.

This bee suit protects the beekeeper from stings.

