



All About Bees and Beekeeping

Protection

- *Protection from stings*
- *Some people are extremely allergic*
- *If you stay calm the bees stay calm*

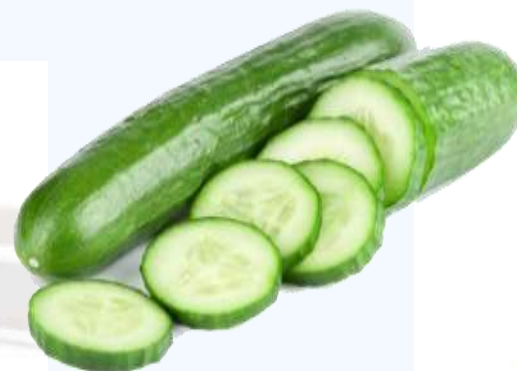
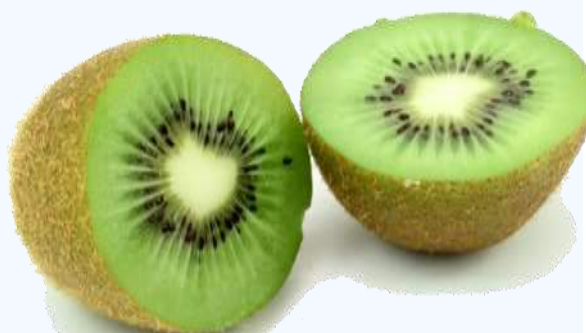




POLLINATION

- Bees are extremely important for food production.
- They increase the size and quantity of fruit and vegetables.
- Commercial beekeepers are paid by farmers to take their hives into the fields where fruit and vegetables are being grown.
- If we lose our bees there are lots of foods we will no longer have to eat.

Some of the Foods the World Could Lose



Types of Bees



How Many of Each?



The Queen Bee



- *Mating
- *Egg Laying
- *Swarming

Drones

What is their role in the hive?
How can you recognise them?
What is a DCA?





Worker Bees

Most bees in a
hive are worker
bees but.....

Worker Bees Have Lots of Jobs

1. Cleaning cells
2. Capping cells
3. Attending the Queen
4. Tending brood
5. Receiving nectar
6. Cleaning the hive
7. Packing pollen
8. Building comb
9. Orientation flights
10. Guarding the hive
11. Foraging



They don't go and gather nectar until they are about 20 days old. That is their last job before they die.

How Long Does a Bee Live For?



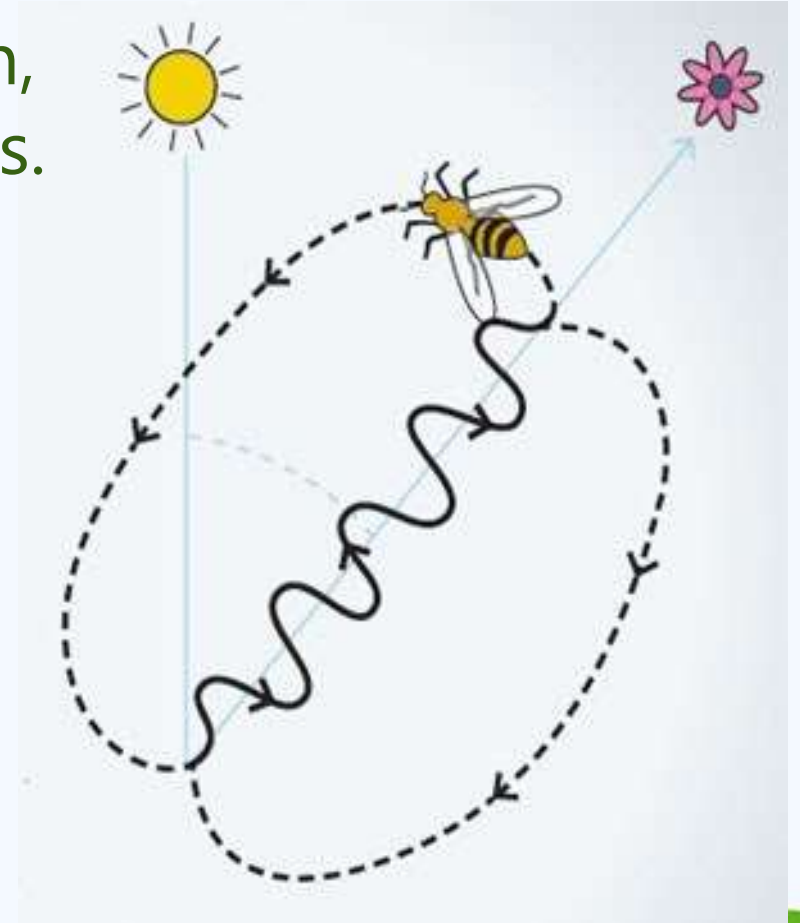
- *A queen bee can live for three to four years.
- *A worker bee lives for about six weeks.
- *A drone lives for about eight weeks unless it mates with a queen. If this happens it dies straight afterwards.

How Do Bees Find Food?

When a forager finds a new supply of nectar, pollen, water or resin it returns to the hive to tell the others.

The way a bee passes on this information is by performing a Waggle Dance.

This dance tells the other bees the direction and distance from the hive, of the food source. They perform the dance on the surface of the honey frame.



How Do Bees Make Honey?

- *They collect nectar from flowers and store it in a honey sac inside their bodies.*
- *When they return to the hive they regurgitate it into the mouth of a worker bee.*
- *That bee then does the same thing with a different bee.*
- *Each time some liquid is lost and it starts to look more like honey.*
- *Sometimes bees put the nectar straight into a cell.*
- *When the nectar has enough water removed it becomes honey and the bees cover the surface with wax to keep it safe.*

How much honey does one bee make in a lifetime? Which one of these is closest?



How do bees make honeycomb?



- Bees make honeycomb out of wax.
- They have a wax producing gland in their abdomen which turns the sugar in honey into wax.
- This gland produces small flakes of wax which are deposited on the abdomen of the bee.
- Other bees remove it, chew it to make it soft, and then use it to build comb inside the hive.

What Else Do Bees Need?



- *Bees also need pollen.*
- *When they are collecting nectar from the flowers their bodies become covered in pollen.*
- *They scrape this off their bodies and store it on their back legs to take back to the hive.*
- *The pollen is then packed into cells in the hive for later use.*
- *Pollen is high in protein and is fed to the baby bees.*

PROPOLIS



Also known as “Bee Glue”

It is used by the bees to seal up any gaps in the hive.



Made from a mixture saliva, wax and resin, which comes from trees.

The Hive



Setting up a Hive



Tools Needed for Beekeeping



Honey Extraction







Any Questions?