



HONEY BEES



It takes 3 types of Bees to make a hive:

The queen is the most important bee in the hive! She lays all the eggs, is cared for by worker bees and controls everything happening inside the hive with chemicals called pheromones.

Drones are the only males in the colony. Their main purpose is to mate with the virgin queens in the spring and summer, but they eat more than they work so they are killed by worker bees in the winter to prevent them from eating all the food reserves.

Worker bees have many different jobs, based on their age.
The younger the bee, the closer it stays to the center of the nest.

FORAGERS

leave the nest to forage for nectar, pollen, and water from age 21 until they die. They reason the oldest bees leave is because if they die on their journey, there is always someone to take their place.



HOUSEKEEPER

for the first 1- 2 days after emerging from the pupa case, the worker bee is considered a housekeeper, cleaning out their cell to make room for a new egg to be laid.



GUARD BEES

are 17-20 days old and stand at the entrance of the hive, guarding it from other bees and predators. These are usually the bees that come out to sting you if you disturb a hive.



NURSE BEES

at 3-11 days old, honey bees are called nurses. Their job is to feed the larvae (by taking in pollen and nectar from foragers, regurgitating it and feeding it to the larvae).



CONSTRUCTION WORKERS

bees 12-17 days old, produce wax from glands on their abdomen. They use this wax to repair and build new cells in the hive.



ADVANCED NURSE BEES

are 6-11 days old and responsible for feeding and grooming the queen. If the queen isn't present, they produce royal jelly and feed a new queen larvae.





Did you know...

Honey Bees are the only insects that produce food for humans!

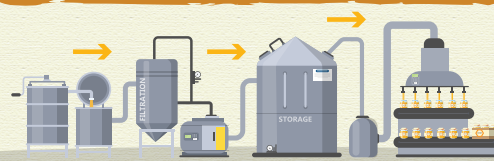


Honey bees visit flowers to collect nectar and pollen. Nectar is used by bees to make honey. They drink up the nectar and regurgitate it back at the hive. Enzymes from the regurgitations along with evaporation turns nectar into honey. Nectar from different flowers produces honey with different flavors.



Honey bees "cap" their honey cells when nectar turns to thick honey and enough water has evaporated. When 80% of the frame is capped honey, beekeepers usually feel it is ready to be removed from the hive. The layer of wax over the capped honey is broken or cut and the honey frames are placed into an extractor. The extractor spins and spins, pulling all the honey out of the frame. Then it flows through a screen to remove bee parts and wax pieces and placed in containers.

Honey is sold raw and refined. Raw honey is not heated. Refined honey is heated to 45-50°C. Honey rarely spoils and therefore; little needs to be done to make it ready for human consumption. High sugar and very low water content make it hard for fungi and bacteria to grow. While honey doesn't go "bad", it may crystalize and a warm bath will return honey to its original state.



Honey is sold to the consumer a variety of ways; at road side stands, farmer's markets, online and in retail stores. Americans consume 1.51 million pounds per year!

The entire process of collection of nectar to bottling honey all depends on the bees! In Texas, bees start collecting nectar in late February to early March, but honey is usually not extracted until June or July in Texas.

Approximately 2 million flowers must be visited to produce one gallon, or 12 pounds, of honey and it takes about 8 gallons of water to make 1 gallon of honey!

