

# An Introduction To Honey Bees (*Apis Mellifera*)

Mankind has used honey as a sweetener since earliest times, and there are many references to it in ancient literature – as well as many myths and errors about the life of the honey bee.

We know the honey bee to be not only a honey producer, but also one of the most important insect pollinators of both crop plants and wild flowers. Without it, many crops could not be grown economically. Today as never before, the honey bee faces the danger of careless spraying of insecticides and weed-killers on plants in bloom. Protection of the honey bee against these risks is essential for future crop production even more than honey production.

## Honey Bee Lifecycle

16 days – for a queen to hatch (she has a high-protein diet: royal jelly).

21 days–for a worker to hatch (non re-productive female).

24 days–for a drone to hatch (produced from an unfertilised egg & therefore no father) no sting. Only 10-15% of the colony are drones, the males.

## The Worker

From house duties to foraging at each stage in the lifecycle the worker bees are born to work.

Just hatched the baby bees first job is to clean out the cells ready for the queen to lay the next egg. Days later the bee progresses to feeding the larvae, capping larvae, building cells, tending the queen, evaporating nectar, storing pollen, heating the brood (constant temperature in the hive is approximately 35C), guarding the hive, eventually foraging and scouting for new forage.

## In summer a queen can lay her own body weight in eggs everyday.

In summer the average life of a worker bee is 6 weeks – after this time she's worn out. In her whole life time she will have collected less than one teaspoon of honey. Late season bees, hatched in September \ October need to survive into the following spring –they have protein stores in their bodies to help them survive and tend the queen and maintain the temperature in the hive.

## The Drone

The male bee has no father–they have half the genetic material the queen has and none of the genetic material of her mates. Their main purpose is mating with virgin queens to ensure continued

survival of the species. At the end of summer any remaining drones are pushed out of the hive by the workers–as surplus to requirements.

## The Queen

She has mandible glands in her mouth & tarsal glands in her feet that secrete chemicals this affects the workers behaviour and gives the colony messages about the queen's health and wellbeing. Content workers groom the queen and spread her pheromones through the hive–described as 'queen right'.

ensuring there is a young healthy queen in the colony, that there is sufficient room for the growing number of bees–additional brood box or additional supers can be added, to ease congestion.

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For more information contact your local beekeepers association who will be happy to help with advice and most offer courses.

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