

Chapter 09

Production of Food from Animals

Apiculture:

Honey has probably been associated with man since very early days. The first proof of this association is evident from the rock paintings made by the primitive man thousands of years ago.



Man knows about the art of bee keeping in the regions of early civilization. The Egyptians were well acquainted with bee husbandry 4000 years ago as they practiced migratory beekeeping.

The Rigveda, probably written between 3000 B.C. and 2000 B.C, contains many references to bees and honey. They named honey as a divine food.

Apis is called bees and the culture of bees is called apiculture.



Honey bees are best pollinators of many agricultural crops.



There are six well known species of honey bees in India.

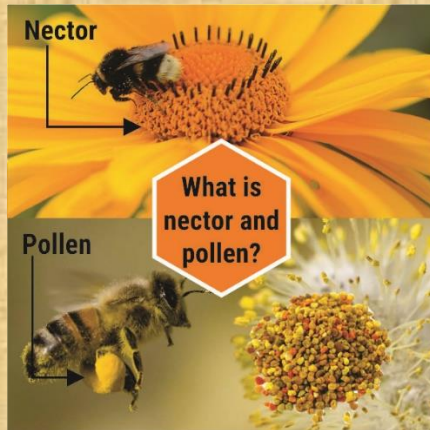
- Apis dorsata
- Apis indica
- Apis florea
- Apis melipona
- Apis trigona
- Apis cerana
- The bee hive of the Indian variety, Apis cerana produces 3-10 kgs of honey per annum.
- A bee hive of Apis mellifera an European honey bee produces 25-30 kgs of honey per annum.
- It was during the Nineteenth century that bee keeping became a commercial activity.
- Honey bees are social insects like ants which lives in colonies.

A honey bee colony consists of three types of bees. One queen, workers (1000) and drones (100s). There is only one queen bee in a colony and the primary function of the queen is to lay eggs. The workers are the sterile females in the hive. The worker bees attend to indoor duties during first three weeks of their lives such as secretion of royal jelly and feeding of the brood and after three weeks, they attend outdoor duties like collecting nectar, pollen and water.

Lastly, the drone are the male members of the colony. They are very lazy and unable to gather food. Their main duty is to participate in mating. Mating takes place in the open when the queen is in flight and The Drone dies during the act or immediately as their abdomen burst open during this Process. Now when you compare the life span of the three types, queen has the longest. The queen has longest life span of two to three years, whereas a worker lifespan of has 5-6 weeks and finally the drone has lifespan of 57 days.

Sources of nectar:

We know bees loves nectar.



The plants, which contain nectar and pollen liked by bees are called bee flora.



- Fruit trees like citrus, apple, guava, tamarind etc.
- Cultivated field crops like mustard, gingelly, wheat, cotton, sunflower etc.
- Vegetable plants like beans, lady finger, brinjal etc.
- Timber yielding trees like acacia, neem, sal and bushes and shrubs and natural and ornamental flower plants are all the sources of nectar.

The bees of a colony sometimes rob another colony especially during drought period.

Apart from honey,

- The bee wax and bee venom are other products in Apiculture.
- Bee venom is used for the preparation of 'Apis tincture' which is used in Homeopathic treatment.



- Bee wax are used in production of polish cream, nail polish, etc.



Production of honey in large scale is by providing artificial bee hives.



Components of artificial bee hive:

This hive consists of,

- Floor board
- Brood chamber

- Super chamber
- Top cover
- Inner cover
- Frames
- Entrance rod

These parts can easily be separated.



The hive may be double walled or single walled. These artificial hives are not similar to natural hives.