

CERTIFICATE COURSE
DEPARTMENT OF ZOOLOGY
MARY MATHA ARTS & SCIENCE COLLEGE, MANANTHAVADY
CCZLG01: CERTIFICATE COURSE IN APICULTURE

Total Hours:30

Course outcomes CO 1: Develop self-employment capabilities.

CO 2: Acquires scientific knowledge of profitable farming.

UNIT I (8 Hrs)

Definition, Scope, Classification of bees, Rock bee, Indian bee, little bee and Dammer bee- their identification and habits, choice of species in Apiculture. Bee colony-Distinctive features (social organization), Identification and Functions of queen, drones and workers. Food of the bee- honey and pollen-royal jelly. Behavior of bees-dances.

UNIT II (8 Hrs)

Principles of apiculture, arranging an apiary, position-space-direction, acquiring bees-care of newly captured colonies-handling the bees. The bee comb and its architecture-Different kinds of cells. Different types of Modern hives (Newton, Langstroth) – Architecture. Appliances used in Apiaries.

UNIT III (8 Hrs)

Honey bee products. Honey- Collection and Extraction, Preservation and storage –Physical properties, Chemical composition, nutritive value, medicinal values-honey as daily food. Bee wax Production , method of extraction-characteristics and uses. Bee venom-method of collection - composition of venom- its uses.

UNIT IV (6 Hrs)

Enemies of bees- Mites, Greater wax moth, lesser wax moth, ants, wasps, beetles, birds. Diseases of bees-adult and brood diseases- Bacterial, Fungal, Viral & Protozoan; Prevention and Control measures.