

E.M.G. YADAVA WOMENS COLLEGE, MADURAI -14.

(An Autonomous Institution – Affiliated to Madurai Kamaraj University)

Re –accredited (3rd cycle) with Grade A⁺ and CGPA 3.51 by NAAC

CBCS

DEPARTMENT OF ZOOLOGY – B.Sc

ADD ON COURSE

(w.e.f. 2021 – 2022 onwards)

Entrepreneurial Bee Keeping

1. This Course is taken up by first year Zoology students
2. Period of study : I Semester

COURSE STRUCTURE

Contact Hours: 30 hrs

Credit: 1

S.No.	Sem	Subject Code	Title of the Paper
1.	I	21ZAOC	Theory: Entrepreneurial Bee Keeping
2.	I	21ZAOC P	Practical: Lab in Entrepreneurial Bee Keeping

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Entrepreneurial Bee Keeping

Title of the Paper : Entrepreneurial Bee Keeping

Semester : I

Contact hours: 30hrs

Sub Code : 21ZAOC

Objectives:

1. To inculcate importance of Bee keeping and honey processing in relation with entrepreneurship development.
2. To give students knowledge about various techniques of Bee keeping and honey processing and its marketing to make them self sustainable after graduation.
3. To teach techniques of construction of Bee Hives and its maintenance.
4. To teach students about Honey production and health related problems with Honey bees.

Unit I : Introduction to Bee Keeping

Importance of Honey bees – Benefits of Bee keeping – Honey Bee products – Nature of work.

Unit – II :Indian Honey Bees

Caste of Bees-Commercially important Bee species and their life Cycle.(*Apis dorsata*, *Apis cerana indica*)

Unit III : Apiary site selection and Management

Location of Apiary, starting a colony and establishment of a beehive-Seasonal management of Apiary.

Unit IV : Diseases of Honey Bees and their management

Viral diseases-Sac Brood and Thai sac Brood disease

Bacterial diseases – American Fowl Brood and Septicemia

Fungal diseases – Chalk Brood

Protozoan diseases – Amoeba disease

Unit V: Entrepreneurship Skills & Government Funds

Preparing a Business plan for Bee keeping – Keeping Records-Hiring People – Economics of Bee Keeping(For 50 colonies).

Text Book :

- ❖ Mc Chercain and Ramachandran., Bee Keeping in south India ,

Reference books:

1. Sardar Singh.,Beekeeping in India Hardcover., Indian Council of Agricultural Research; First Edition first Printing ,1962
2. Dharm Singh and Devender Pratap Singh.,A Handbook of Beekeeping ., Agrobios (India) ,2006
3. Prospective in Indian Apiculture - R.C. Mishra
4. Rearing queen bees in India - M.C. Suryanarayana et. al.
5. Bee Keeping in India - G. K. Ghosh
6. Technology and value addition of Honey - Dr. D. M. Wakhle and K. D. Kamble.
7. A. I. Root Bee culture , Indian Bee Journal - All India Bee Keeping Association
Asian Bee Journal

PRACTICALS

Title of the Paper: Lab in Entrepreneurial Bee Keeping

Subject Code :21ZAOCP

List of Experiments:

1. Identification of Honey Bees-Drone Bee,Queen Bee, Worker Bee.
2. Bee Keeping Equipments-Typical Bee Hive,Hive stand,Smoker,Queen Excluder,Bee Brush,Honey Extractor
3. Harvest,Processing and Marketing of Honey.
4. Field visit and interaction with Bee keepers and other supportive agencies