

## SEMESTER 1<sup>st</sup>

### SKILL ENHANCEMENT COURSE (NEP-2020)

#### SER125S: SERICULTURE- SILKWORM REARING TECHNOLOGY

CREDITS: THEORY: 02; PRACTICAL: 02

#### LEARNING OBJECTIVES

To know about the biology of mulberry silkworms and their rearing techniques

#### LEARNING OUTCOME

Silkworm rearing knowhow on scientific lines to take Sericulture as an enterprise

#### THEORY (2 CREDITS)

##### UNIT 1: INTRODUCTION TO SERICULTURE AND SILKWORMS

- 1.1. Introduction to Sericulture: History, Scope and current status at Regional, National and International level
- 1.2. Types of silkworms: Mulberry and Non-mulberry
- 1.3. Life cycle of the mulberry silkworm, *B. mori*, Role of hormones in Metamorphosis of silkworm
- 1.4. Silkworm races – Univoltine, Bivoltine and Multivoltine races
- 1.5. Moulting and Role of hormones

##### UNIT 2: SILKWORM REARING TECHNOLOGY

- 2.1. Silkworm Rearing House: Types, Model Rearing House and Rearing equipments
- 2.2. Disinfection and different types of disinfectants used in Sericulture
- 2.3. Incubation, Black boxing, Chawki Rearing and Late Age rearing
- 2.4. Mounting -types of mountages, harvesting of cocoons
- 2.5. Silkworm diseases and their management

#### PRACTICALS: (2 CREDITS)

1. Rearing House Model preparation
2. Study of Rearing equipments
3. Disinfection of Rearing House and equipments
4. Conducting of silkworm rearing
5. Study of life cycle of Mulberry silkworm
6. Dissection of Alimentary canal
7. Dissection of Silk gland
8. Dissection of Reproductive system of Silk moth
9. Visit to any Sericulture Institute of UT

#### BOOKS RECOMMENDED

1. Hand book of Sericulture Technologies by Dandin, S.B. et al.
2. Silkworm Rearing Technology, Central Silk Board, Bangalore *Dr. R. K. Rajan & Dr. M. T. Himantharaj* Text Book  
Planning for silkworm rearing, incubation of silkworm eggs mounting and harvesting
3. Silkworm physiology by Shamuiddin Mohd
4. Sericulture by R. K. Shah
5. Hand Book of Practical Sericulture. S. R. Ullal and M. N. Narasimhanna. C. S. B Bangalore
6. An Introduction to Sericulture. G. Gorge, J. Sulochana Chetty.
7. Package of Practices for Silkworm and Mulberry Cultivation in Kashmir, SKUAST-K Mirgund, Directorate of Extension Education.
8. Principle of Temperate Sericulture by A. Kamili and M. Masoodi.