

SEMESTER 1st
MINOR COURSE

SER122N SRICULTURE (INTRODUCTION TO SERICULTURE AND MORICULTURE)

CREDITS: THEORY: 04; PRACTICAL: 02

LEARNING OBJECTIVES

To understand the importance of sericulture as an agro-based industry. To get acquainted with the raising of Mulberry Plantation.

LEARNING OUTCOME

Revival of sericulture industry & raising of high yielding mulberry varieties in order to enhance the quality and quantity of cocoons

THEORY (4 CREDITS)

UNIT 1: INTRODUCTION TO SERICULTURE

- 1.1. Sericulture: Definition, scope, history and present status.
- 1.2. Silkworms: Types of silkworms, their food plants and distribution.
- 1.3. Silk production: Mulberry and non-mulberry cocoon and raw silk production
- 1.4. Prospects and problems of sericulture
- 1.5. Role of women in sericulture

UNIT 2: INTRODUCTION TO MORICULTURE

- 2.1. Land preparation: Soil, levelling and ploughing.
- 2.2. Plantation methods: Row and pit systems, recommended spacing under improved method of cultivation
- 2.3. Irrigation: Drip irrigation, sprinkler irrigation, flood irrigation
- 2.4. Manuring: Organic, inorganic and bio-fertilizers and their types
- 2.5. Different types of weeds in mulberry garden and their management

UNIT 3: TAXONOMY, MORPHOLOGY AND ANATOMY OF MULBERRY

- 3.1. Taxonomy of mulberry
- 3.2. Popular mulberry cultivars of Jammu and Kashmir and south India
- 3.3. Morphological features of different Mulberry Cultivars
- 3.4. Anatomy of root, stem and leaf.
- 3.5. Economic importance of mulberry and its medicinal value.

UNIT 4: HOST PLANT PRODUCTION

- 4.1. Propagation of mulberry-collection of viable seeds, seedling raising, Propagation through cuttings, selection of cuttings
- 4.2. Grafting: selection of stock and scion material and their features, types of grafting-stem, root and bud grafting techniques.
- 4.3. Pruning: Bottom pruning, middle pruning, repeated pruning and their importance
- 4.4. Factors affecting leaf yield: Estimation of leaf yield per unit area-acre/hectare
- 4.5. Primary and secondary nutrients, micronutrients and macronutrients and integrated nutrient management

PRACTICALS (2 CREDITS)

1. Preparation of a map showing extension of sericulture in the world.
2. Preparation of a map showing extension of sericulture in India.
3. Preparation of a map showing extension of sericulture in Jammu and Kashmir.
4. Soil sampling and analysis of pH and moisture content.
5. Morphology of mulberry root, stem and leaf.
6. Anatomy of mulberry root, stem and leaf.
7. Methods of propagation by cutting and grafting
8. Visit to various Sericulture Institutes of the UT

BOOKS RECOMMENDED

1. Hand Book of Practical Sericulture. S. R. Ullal and M. N. Narasimhanna. C. S. B Bangalore
2. An Introduction to Sericulture. G. Gorge, J. Sulochana Chetty.
3. Package of Practice for Silkworm and Mulberry Cultivation in Kashmir, Skuast-K Mirgund, Directorate of Extension Education.
4. Principle of Temperate Sericulture by Kamli and M. Masoodi.
5. Manual on Sericulture. Food and Agriculture Organization Rome 1976
6. Objective book on sericulture by F.A. Malik, Awquib Sabahat and M. A. Malik
7. Introduction to non-mulberry silkworm by Elumalai, D et al.