



Pravara Rural Education Society's
PADMASHRI VIKHE PATIL COLLEGE OF ARTS, SCIENCE & COMMERCE,
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Affiliated to University of Pune ID No. PU/AN/ASC/016[1971]

NAAC Accredited A+ Grade College

CERTIFICATE COURSE IN SERICULTURE

1. Introduction to sericulture: Brief history in Global and Indian context
Sericulture in Maharashtra.
2. Sericulture industry in India
3. Importance of Silk worm and Sericulture.
4. Systematic position and External Morphology of silk worm.: External morphology of Bombyx mori. Egg. Larva. Pupa and cocoon. Moth male and female
5. Internal anatomy and physiology of Bombyx mori .digestive system. Circulatory system. Respiratory system. Nervous system, sense organ and endocrine glands. Reproductive system. Glandular system with special reference to silk glands.
6. Species of Silk worm, distribution. Wild species of silk worm and their distribution in the world and in India and taxonomy. Tussar. Munga. Eri. Other species. Brief account of silk production with reference to wild species. Domesticated species of silkworm. Distribution and taxonomy. Bombayx mori Antheraea yamamai. Antheraea perny. Antheraea assama. Antheraea paphia. Attacus.
7. Life history of Silkworm and cytogenetics: Lifecycle of wild species of silkworm. Life cycle of domesticated silkworm Bombyx mori .Concepts of Voltinism. Embryology of Bombyx mori. Cytogenetics.

PRACTICALS

1. Study of external morphology of silkworm.
2. Study of different stages in the life cycle egg, larva, pupa, cocoon, moth including mouth of silk worm.
3. Mouth parts of silk worm. salivary glands.
4. Mounting of spinnerlet.
5. Study of Silk worm species.
6. Study of varieties of wild and domesticated silkworms and their life cycles.
7. Visit to Sericulture center .

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P.V.P. College, Pravaranagar

Certificate course in Sericulture

Term -I Theory Syllabus :-

- 1) Introduction to sericulture :- Brief history in Global and Indian Context and Sericulture in Maharashtra. 5
- 2) Sericulture Industry in India. 3
- 3) Importance of Silkworm and Sericulture. 2
- 4) Systematic Position and External Morphology of Silkworm, Morphology of Bombyx Mori. Life cycle, egg, larva, pupa and cocoon. Male and female moth. 5
- 5) Internal anatomy and physiology of Bombyx mori.
 - a) Digestive system.
 - b) Circulatory System.
 - c) Respiratory System.
 - d) Nervous System.
 - e) Sense organs.
 - f) Endo crine glands.
 - g) Reproductive system. 24
 - h) Glandular system. 3
- 6) Species of Silk Worm.
- 7) Wild Species of Silk Worm and their distribution in the world and in India and taxonomy of Tussar, Muga, Eri and other species. 6

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Term II Theory Syllabus: -

- 1) Silk production Process.
 - a) Equipments.
 - b) Rearing techniques.
- ② Life History of silkworm and cytogenetics, life cycle of wild species of silkworm. 6
- 3) Embryology of Bombyx Mori. 7
- ④ Important Diseases of silkworm.
 - a) Protozoan Diseases and their control.
 - b) Fungal Diseases and their control.
 - c) Bacterial Diseases and their control.
 - d) Viral Diseases and their control. ⑫
- 5) Study of Silkworm Pests.
 - a) Beetles.
 - P b) Flies.
 - c) Ants.
 - T d) Lizzards, Birds, Rats and Squirrels. 10
- 6) List of Research and Training Centers. i

48

Practicals of Sericulture

Term I

- 1) Study of external morphology of silkworm.
- 2) Study of different stages in the life cycle, egg, larva, pupa and moth.
- 3) Mouth parts of silkworm and salivary glands.
- 4) Mounting of spinneret.
- 5) Study of silkworm species
- 6) Dissection of Silkworm.
 - a) Digestive system
 - b) Circulative system
 - c) Respiratory system.
- 7) Dissection of Silkworm.
 - a) Endo crine glands.
- 8) Study of varieties of wild and domesticated silkworm and their life cycles.

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Term II

- 1) Study of Embryology of Bombyx Mori.
- 2) Study of Protozoan and fungal disease and their control.
- 3) Study of bacterial and viral disease and their control.
- 4) Study of silkworm pest.
- 5) Planting of mulberry plants.
- 6) Selection of soil and water management /Irrigation of mulberry plants.
- 7) Rearing of silkworm.
- 8) Marketing of silkworm and visit to sericulture center.

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