

B.Sc. SERICULTURE SYLLABUS UNDER CBCS

(With effect from 2016-2017)

III - SEMESTER

GE-1 (Theory)

Vanya Sericulture

Max. Marks: 80

1. Introduction to Vanya Sericulture and its Geographical distribution in India - Introduction to Tassar silkworm, host plants, their cultivation and practices.
2. Tassar silkworm life-cycle, biology, cocoon production, pests and diseases.
3. Tassar seed production and cocoon reeling process.
4. Introduction to Eri silkworm, host plants, their cultivation and practices.
5. Eri silkworm- life cycle, biology, cocoon production, pests and diseases.
6. Eri seed production and cocoon reeling process.
7. Introduction to Muga silkworm, host plants, their cultivation, practices.
8. Muga silkworm -life cycle, biology, cocoon production, pests and diseases.
9. Muga seed production and cocoon reeling process.
10. Bye-products of Vanya sericulture and their utilization.



Professor/Chairman
Board of Studies in Zoology
Department of Zoology
Koneru University
Warangal - 506 009.

B.Sc. SERICULTURE SYLLABUS UNDER CBCS
(With effect from 2016-2017)
V- SEMESTER
Paper-V (Theory)
Diseases and Pests of Silkworm and their Management

Max. Marks: 60

Unit-1: Basic concepts of silkworm diseases and Protozoan disease

- 1.1. Introduction; classification of silkworm diseases.
- 1.2. Pathogenesis of diseases.
- 1.3. Protozoan disease – symptomatology, structure of pebrine spore, life cycle of *Nosema bombycis*, source.
- 1.4 Mode of infection and transmission, cross infectivity, prevention and control of pebrine

Unit-2: Bacterial and viral diseases


- 2.1. Bacterial diseases - causative agents, symptoms, factors influencing flacherie, source.
- 2.2 Mode of infection and transmission prevention and control.
- 2.3. Viral diseases (grasserie, infectious flacherie, cytoplasmic polyhedrosis, denonucleosis and gattine)- causative agents- symptoms – sources,
- 2.4 mode of infection and transmission- prevention and control. Of viral diseases

Unit-3: Fungal disease and IPM

- 3.1. Fungal diseases: white and green muscardine and aspergillosis- causative agents symptoms - structure and life cycle of fungal pathogen
- 3.2. Mode of infection and transmission- prevention and control of fungal diseases.
- 3.3. Integrated management of silkworm diseases.
- 3.4. Influence of environment and nutrition on the incidence of diseases.

Unit-4: Pests of silkworms

- 4.1. Life cycle of Indian uzifly; seasonal occurrence; oviposition and host-age preference; nature and extent of damage; prevention and control; integrated management of Indian uzifly.
- 4.2. Cocoon pests of silkworm: Dermestid beetle- life cycle; nature and extent of damage; Prevention and control measures.
- 4.3. Predators of silkworm: Cockroaches, ants, lizards and rodents; prevention and control measures.
- 4.4. Brief account of methods of pest control: Cultural, mechanical, physical, legislative (Quarantine), chemical, genetical / autocidal, biological and IPM.

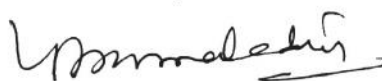


Professor & Chairman
Board of Studies in Zoology
Department of Zoology
Kaveri University
Warangal - 506 009.

B.Sc. SERICULTURE SYLLABUS UNDER CBCS
(With effect from 2016-2017)
V- SEMESTER
Paper-V (Practical)
Diseases and Pests of Silkworm and their Management

Max. Marks: 40

1. Identification of Protozoan disease of silkworms
2. Identification of Bacterial diseases of silkworms
3. Identification of Viral diseases of silkworms
4. Identification of Fungal disease of silkworms
5. Microscopic study of pebrine spores
6. *uzi* infection identification and control methods
7. Life cycle of dermested beetles
8. Methods of application of silkworm bed disinfects
9. Control methods of diseases
10. Control methods of pests.



Professor & Chairman
Board of Studies in Zoology
Department of Zoology
Kakatiya University
Warangal - 506 009.

B.Sc. SERICULTURE SYLLABUS UNDER CBCS

(With effect from 2016-2017)

V- SEMESTER

Paper-V (Theory)

Silkworm Seed technology

Max. Marks: 50

Unit-1: Principles of Seed Technology

- 1.1 A general account of silkworm seed, grainages, production and demand trends.
- 1.1.1. Silkworm seed organisation, significance of seed organization; Basic seed multiplication centres- P4, P3, P2 and P1; Seed areas- identification, concept of selected seed rearers/
- 1.2. Disinfection and hygiene in seed production units.
- 1.3. Procurement and transportation of seed cocoons- processing and preservation of seed cocoons- sex separation in seed cocoons.

Unit –2: Grainage equipment and management:


- 2.1 Grainages : Plan of model grainages—infrastructure, cold storage, facility and equipment, maintenance of grainage conditions.
- 2.2 Grainage management: Staff component, labour maintenance of grainage good cocoons, layingration.
- 2.3. Distribution of eggs: precautions and preventive measures
- 2.4. Protective measure and maintenance of records ion grainage.

Unit-3: Seed production:

- 3.1. Ecllosion of moths: Synchronization of emergence of moth, collection and selection, coupling, decoupling and storage of male moth.
- 3.2. Egg laying : Ideal condition for egg laying, methods of egg laying, disinfection of eggs and packing of egg cards.
- 3.3. Mother moth examination for disease infection: Types of examination, green moth and dry moth examination, individual and mass examination.
- 3.4. Precautions during moth examination

Unit-4: Handling and Preservation of eggs

- 4.1 Handling of bivoltine eggs : Physical and chemical methods for early hatching hot and cold acid treatments.
- 4.2 Advantages and disadvantages of hot and cold acid treatments.
- 4.3 Handling of multivoltine eggs : Preservation ofhatching—ideal embryonic stages for cold storage, duration of cold storing.
- 4.4. Economics of seed production: Cost benefit ration in relation to man-power equipment and maintenance.



Professor & Chairman
Board of Studies in Zoology
Department of Zoology
Kakatiya University
Warangal - 506 009.

