

KAKATIYA UNIVERSITY
FACULTY OF SCEINCE
B. Sc (Sericulture)
Semester – VI
D SE – Seri – II
VANYA SERICULTURE
(Elective - I)

Theory	4hours/week	4credits	Theory {Internal marks – 20} Theory {External marks – 80}
Practicals	3hours/week	1credit	Practical marks – 25

Objectives

1. To understand the distribution and status of vanya silk production.
2. To study the procedure involved in cultivation of host plants, rearing, reeling and egg production techniques.
3. To acquaint knowledge about economics of vanya sericulture.

UNIT – I

Vanya silk in India – Importance, scope, demand and impact of vanya silk on tribal socio economic conditions.

Host plants of vanya silkworms and its botanical description.

UNIT – II

Package of practices for established primary host plants, diseases and pests of host plants of vanya silkworms & their management.

Planning for egg production and rearing of tasar, eri and muga including disinfection and hygenic practices to be maintained.

UNIT – III

Morphology and life cycle of vanya silkworms, egg production technology – selection & preservation of seed cocoons, moth emergence, synchronization, pairing and depairing of moths, ovi position, handling and packing of eggs.

Rearing of Vanya silkworms: traditional and improved techniques, feeding, bed cleaning, moulting care during moulting, mounting, harvesting and marketing of cocoons.

Diseases and pest of non mulberry silkworm and their management.

UNIT – IV

Reeling of tasar and muga cocoons, spinning of eri cocoons, selection, cooking, reeling, marketing of raw silk.

Economics of vanya silkworms & byproducts of vanya sericulture and value addition through utilization.

REFERENCE BOOKS:-

1. Jolly M.S., Sen, S.K., Sonwalker, N and Prasad G.K (1997) Sericulture manual 4 – Non mulberry silks. Food and Agricultural services Bulletin 15/4. Food and agricultural organisation of the United Nations, Rome.
2. Chowdhury, S.N. (1998) Muga culture, Central Silk Board, Bangalore, India.
3. Dokuhon, Z.S (1998) Illustrated text book on sericulture, Oxford & IBM Publishing Co. Pvt Ltd, Calcutta.
4. Jolly, M.S Chowdhury, S.N and Sen (1975) Non Mulberry sericulture in India, Central Silk Board, Bombay, India.
5. Jolly, M.S (1998) Tasar culture, Central Silk Board, Bangalore.
6. Thangavelu, K; Chakraborty, A.K; Bhagawati, A.K and ISA MD/(1998) Handbook of Eri culture, CSB, Bangalore.
7. Chaudury, S.N. (1982) Eri Silk Industry, Directorate of Sericulture & weaving, Govt. of Assam, Gauhati, Assam.

VANYA SERICULTURE

Practical's

D SE – Seri – II

(Elective - I)

3hours/week

1credit

25 marks

1. Host plants of tasar, eri and muga silkworms.
2. Identification of leaves of two food plants of non mulberry silkworm with morphological characters & taxonomic traits.
3. Pests and diseases of primary host plants of vanya silkworms.
4. Identification of the morphological features of tasar, eri and muga silkworms (Egg, larva, pupa, cocoon and moth).
5. Egg production technology of vanya silkworms.
6. Rearing technology of vanya silkworm.
7. Cooking and reeling technology of tasar,
8. Cooking and spinning technology of eri cocoons.
9. Identification of tasar, eri and muga raw silk and wastes

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ENTREPRENEURSHIP DEVELOPMENT IN SERICULTURE
(Elective - II)

Theory	4hours/week	4credits	Theory {Internal marks -20} Theory {External marks-80}
Practical	3hours/week	1credit	External marks-25

Objectives

1. To study the entrepreneurial opportunities in sericulture.
2. To gain knowledge to become an entrepreneur in various aspects of sericulture.

UNIT – I

Entrepreneurship: development programme (EDP):- Objectives of EDP, qualities of an entrepreneur and selection of a potential entrepreneur.

Project formulation (Project appraisal): Meaning and purpose, agencies interested/supporting the project, market feasibility of the project, means of finance, risk analysis.

Marketing:- Approach, demand, assessment and steps involved in marketing.

UNIT – II

Insectary facilities and equipment: Location, environmental control, building specification, furnishings and equipments.

Mass production of insect pathogens:- culturing of hosts/preparation of culture substrate, inoculation, collection of diseased cadavers, isolation, purification and storage of pathogens.

Mass production of parasitoids; culturing of host insects oviposition and emergence of parasitoids adults from hosts, collection, feeding and storage of parasitoid adults.

UNIT – III

EDP in raising mulberry sapling (Kisan Nurseries)

EDP in organization of Chawki rearing centres.

EDP in silkworm egg production & rearing.

EDP in silk reeling – charaka, cottage basin and multi end reeling units.

UNIT – IV

Mechanization in mulberry cultivation, silkworm egg production and silkworm rearing – activities and economics. Advances in silk reeling technology – activities and economics. Health hazard faced by sericulturists.

REFERENCE BOOKS:-

1. Hisao Aruga (1994) Principles of sericulture, Oxford & IBM publishing Co.Pvt Ltd, New Delhi.
2. Madan Mohan Rao (1999) Comprehensive sericulture manual B.S publications, Hyderabad.
3. S.S Khanka, Entrepreneurial development, S. Chand Publishing.
4. A. Nirjas, Entrepreneurial development, Sanbun publishers.
5. V.S.P Rao. Human resources management, Taxmann.
6. Philip Kotler, Marketing Management, Analysis, Planning, implementing and control Repearson.

ENTREPRENEURSHIP DEVELOPMENT IN SERICULTURE

PRACTICALS

DSE Seri – II

(Elective - II)

3hours/week

1 credit

25 marks

1. Planning the facilities required for mulberry garden establishment.
2. Observations on insect pathogens and symptoms.
3. Observations on insect parasitoids.
4. Planning for kisan nurseries and economics.
5. Planning for establishment of chawki rearing centers.
6. Planning for establishment of silk reeling – charakas, cottage, multi end reeling units.
7. Assessment of profit – cost ratio under traditional and mechanized systems of silkworm egg production.
8. Assessment of profit – cost ratio under traditional and mechanized systems of silkworm rearing and chawki rearing centers.
9. Assessment of profit – cost ratio under traditional and mechanized systems of silk reeling units.
10. Health related problems during mulberry cultivation, rearing, egg production and reeling.