



**INTEGRAL
UNIVERSITY**

LUCKNOW - INDIA



ICAR
ACCREDITED
AGRICULTURE PROGRAM



VALUE-ADDED COURSE ON COMMERCIAL AGROFORESTRY

AGV-03-2425

ORGANIZED BY
DEPARTMENT OF AGRICULTURE
INTEGRAL INSTITUTE OF AGRICULTURAL SCIENCE & TECHNOLOGY (IIAST)

8th FEB - 22nd FEB, 2025

Dear All,

We are pleased to announce that the Department of Agriculture (IIAST), Integral University, Lucknow is going to offer a Value-Added Course (VAC) on “Commercial Agroforestry” from 8th February , 2025 for the students of all courses

COMMERCIAL AGROFORESTRY

Agroforestry is an integrated approach to land use that combines agricultural crop, trees and livestock practices to achieve economic, ecological, and social benefits. Commercial Agroforestry involves cultivating trees as cash crops alongside inter-crops to optimize land use and profitability. In India, it is widely practiced with tree species such as *Eucalyptus*, *Populus*, *Casuarina*, *Ailanthus*, *Melia*, *Anthocephalus*, *Acacia*, and *Bombax*. A Commercial Agroforestry system that integrates sericulture (silk farming) and lac culture offers a sustainable and innovative model for maximizing land productivity while enhancing biodiversity and supporting rural livelihoods. This system involves growing specific tree species that serve dual purposes providing economic returns through timber, fodder, or fruit while also acting as host plants for silkworms and lac insects. For example, *Morus alba* (mulberry) is a preferred tree species in sericulture, while *Schleichera oleosa* (kusum), *Butea monosperma* (palash), and *Ziziphus mauritiana* (ber) are widely used in lac culture.

Objectives

- To familiarize students with the concepts, principles, and types of Agroforestry systems.
- To highlight the role of Agroforestry in generating income through commercial production of trees, crops, and livestock .
- To provide an additional source of income for farmers through Lac cultivation under Commercial Agroforestry system.
- To enhance the overall land use system by combining Forestry, Agriculture and Silk production.

Learning Outcomes

Students will understand

- The principles, practices and various types of agroforestry systems.
- The importance of commercially viable tree species (e.g., timber, fruit, medicinal plants) and their integration with crops and livestock
- The lac insect inoculation, rearing, and maintaining optimal conditions for lac production on host plants in agroforestry System.
- The life cycle and behavior of silkworms, rearing and their compatibility with agroforestry systems, focusing on sustainable production.
- The ecological and economic interactions between trees and crops in agroforestry systems.

Course Details

Course Platform	:	ili (Integral Learning Initiative : A Collaborative Blended Learning Platform)/Goggle Meet
Course Duration	:	30+ Hours (2 hours per Day Excluding Quiz)
Course Start Date	:	8 th February 2025
Course End Date	:	22 nd February 2025
Registration Date	:	From 3 rd February to 8 th February 2025
Target Participants :		All Courses

OUTLINE OF VALUE ADD COURSE

Module 1

(6+1 hrs.)

Overview of Commercial Agroforestry, definitions, objectives, importance, criteria of selection of trees in Agroforestry.

Different Agroforestry systems prevalent in the country, shifting cultivation, taungya, alley cropping, wind breaks and shelter belts and home gardens.

Quiz Test

Module 2

(6+1 hrs.)

Basis of classification of Agroforestry systems and principles, structural and functional attributes of Agroforestry systems.

Tree-crop interaction, nature and types of interaction-positive and negative, above and below ground interaction competition.

Quiz Test

Module 3

(6+1 hrs.)

Introduction of Lac Culture- history, meaning, Importance, types and uses, host plant, Propagation of lac insect, Inoculation period and harvesting of Lac.

Composition of Lac, Lac Processing, Stick lac, Seed lac, Shellac, Handmade process, Heat process, Solvent processes, Lac Product and Their uses, Lac dye, Lac wax, Shellac and Bleached shellac.

Quiz Test

Module 4

(6+1 hrs.)

Introduction to Sericulture, scope origin and history of sericulture, types of Silk produced in India (Mulberry, Tussar, Eri, Muga).

Silkworm host plants and their selection, Silk producing states of India - cocoon and Silk production.

Quiz Test

Module 5

(6+1 hrs.)

Cultivation of Suitable Agroforestry Species, different Agroforestry models prevalent in India, important MPTS and their management.

Industrial Plantations, Integrated Agroforestry Farming System.

Quiz Test

Total duration of course

30+ Hours

TEAM VAC, DEPARTMENT OF AGRICULTURE

Dr. Ayush Bhushan

Module 1

Dr. Ayush Bhushan

Module 2

Dr. Shamim Akhtar Ansari

Module 3

Dr. Virendra Pal Gupta

Module 4

Dr. Ayush Bhushan

Module 5

* Timing's : Everyday, 6:00 PM Onwards

CONVENER

Prof. MOHD HARIS SIDDIQUI

Director

Integral Institute of Agricultural Science & Technology (IIAST), Integral University, Lucknow

CO-CONVENER

Prof. SABA SIDDIQUI

Head

Department of Agriculture, (IIAST)
Integral University, Lucknow

*E-certificate will be issued to participants having 75%

attendance and 50% marks in Quiz & Assignment

*Joining link will be shared on the registered email id one day before the commencement of the course

MODE ONLINE

Course Coordinator

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Registration Form Link : <https://forms.gle/Rd4kWWDq4pG7DCZH9>



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