TELANGANA TRIBAL WELFARE RESIDENTIAL DEGREE COLLEGE WOMEN SURYAPET MAHATMA GANDHI UNIVERSITY - NALGONDA

DEPARTMENT OF ZOOLOGY

EXTENSION LECTURES ORGANIZED BY DEPATMENT OF ZOOLOGY:

S.No	Name of the Invited	Title of the	Date of
	Scholar with full	Lecture	Lecture
	Address	Delivered	
01	Dr.G.Rajendar,		
	M.Sc(Zoology),Ph.D	Aquaculture	19/01/2021
	Asst. Prof in Zoology		
	KakatiyaUniversity		
02	Dr.K.Sujatha	Sericulture rearing	
	M.Sc	techniques for	16/07/2021
	(Seri&Zoology)Phd,PDF	Harvesting a good crop	
	Asst. Prof in Sericulture,		
	KakatiyaUniversity,		
	Hanamkonda.		

AQUACULTURE

By Dr.Rajendar M.sc (Zoology) PhD Asst. Prof in Zoology Kakatiya University Warangal.

On 19th January 2021 Participants: Students:100

Faculty members:03

EXTENSION LECTURE BRIEF;

Aquaculture Extension Lecture: Advancing Sustainable Practice

Objectives;

- 1. Understand the fundamentals of aquaculture.
- 2. Recognize the benefits and challenges of aquaculture.
- 3. Learn about sustainable practices and innovations.
- 4. Discuss the role of extension services in promoting sustainable aquaculture.

Fundamentals of Aquaculture

Definition and Types

Aquaculture is the cultivation of aquatic organisms in controlled environments. The main types are:

Mari culture: Farming marine species such as oysters and salmon.

Freshwater Aquaculture: Cultivating freshwater species like tilapia and catfish. Integrated Multi-Trophic Aquaculture (IMTA): Combining different species to create a balanced ecosystem.

Importance of Aquaculture

Food Security: Provides a significant source of protein and essential nutrients. Economic Impact: Creates jobs and supports rural and coastal economies. Environmental Conservation: Can reduce pressure on wild fish stocks if managed sustainably.

Benefits and Challenges

Benefits

Scalability: Aquaculture can be scaled to meet growing global seafood demand.

Resource Efficiency: Can be more efficient in feed conversion than terrestrial livestock.

Challenges

Environmental Impact: Risk of water pollution, habitat destruction, and disease spread.

Conclusion

Aquaculture holds tremendous potential to contribute to global food security and economic growth. However, realizing this potential sustainably requires ongoing education, innovation, and effective management. Extension services play a critical role in advancing sustainable aquaculture practices by providing the necessary support and resources to farmers and stakeholders. By working together, we can ensure that aquaculture remains a viable and sustainable industry for future generations.

> Organized by Department of zoology G.Aruna (HOD Zoology) B.kalyani J.krishnaveni



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2. SERICULTURE REARING TECHNIQUES FOR HARVESTING A GOOD CROP..

By Dr.Kuntamalla Sujatha M.Sc.,(Seri&Zoology) Asst.Prof of sericulture, Kakatiya University

On 16/07/2021 Participants: Students: 100

Faculty members: 03

EXTENSION LECTURE BRIEF

Sericulture, the practice of raising silkworms for silk production, demands precise techniques to ensure a high-quality yield. The process begins with the selection of robust silkworm eggs, often of the Bombyx mori species. These eggs should be sourced from reputable suppliers to ensure genetic quality and disease resistance.

Maintaining a controlled environment is crucial. Silkworms thrive at temperatures between 25-28°C and humidity levels of 70-80%. This environment should remain stable, with proper ventilation to avoid the build-up of harmful gases. Fresh mulberry leaves, the exclusive food source for silkworms, must be provided in abundance. Leaves should be tender, free of pesticides, and cleaned thoroughly before feeding.

Hygiene is paramount in sericulture. Rearing trays should be cleaned regularly, Silkworms undergo five larval stages, or instars. During these stages, careful monitoring of their health and growth is necessary. By the fifth instar, silkworms are ready to spin cocoons. It is essential to provide suitable mounting structures such as frames or branches for cocoon formation. These structures should be placed in a quiet, dark area to facilitate the spinning process.

Harvesting occurs once the cocoons harden and turn golden, typically after 7-10 days. To ensure high-quality silk, it is important to harvest promptly before the moths emerge. Properly harvested cocoons should be sorted, dried, and stored in a cool, dry place until further processing.

Conclusion;

Adopting these meticulous rearing techniques ensures a robust and highquality silk crop, supporting the sustainability and profitability of sericulture. Organized by Department of zoology G.Aruna

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