

Pearl Culture

CREDIT DISTRIBUTION, ELIGIBILITY AND PRE-REQUISITES OF THE COURSE

Course title & Code	Credits	Credit distribution of the course			Eligibility criteria	Pre-requisite of the course (if any)
		Lecture	Tutorial	Practical/ Practice		
Pearl Culture	2	0	0	2	XII	NIL

Learning Objectives

The Learning Objectives of this course are as follows:

- To learn the basics of Pearl culture and it's important as a skill for self-sustainable and self-employment.
- To impart a comprehensive knowledge regarding morphology, anatomy, physiology, food and feeding behaviour, related diseases and its control measures of the mother Pearl Oyster.
- To gather a comprehensive knowledge of various types of implantations in Oyster and also the technique of insertion of beads for the formation of Pearl.
- To gather experience of post-operative care.
- To learn the techniques of harvesting, processing, sorting and marketing of the Pearl produced.

The Learning Outcomes:

By the end of the course, the students will be able to:

- Gain overall idea about Pearl oyster - its biology, morphology especially the histology of mantle, pearl formation etc.
- Recognize the suitable species of oyster for pearl culture in India.
- Set up a pearl culture system in pond/ tanks.
- Start entrepreneurship on Pearl culture.
- Start-up with the help of existing Government funding.

Skill development and job opportunities

After completion of this course students may be

- Employed in various pearl farming related businesses.
- Fully equipped to start own entrepreneurship in **pearl farming**.
- Completely aware about the requirements to start their own **Pear processing industry**.

SYLLABUS:

Practical

Unit-I

20 Hours

Introduction to pearl culture. Morphology and anatomy of pearl culture. Structure and histology of mantle. Origin of pearls, mussels producing pearls. Identification of species capable of producing pearl.

Exercises:

1. Set-up and Installation of culture system (sac culture, raft culture) for sustainable production.

2. Identification of suitable species capable to produce pearl.
3. The study of morphology and growth rate of the pearl oyster.
4. Measurement of major water quality parameters.
5. Feeding of the pearly oyster.

Unit-II

20 Hours

Implantation of foreign particles for pearl formation and post operation care.

Exercise:

1. Preparation of the graft tissue for insertion.
2. Pearl oyster surgery and insertion technique of bead.
3. Post-operational care.
4. Culture of the pearl oyster using natural food .
5. Regular monitoring of the water quality parameters.

Unit-III

20 Hours

Harvesting of Pearl and its processing. Sorting of Pearl. Marketing and economics concerned.

Exercises:

1. Bleaching and collection of pearls.
2. Cleaning of pearls.
3. Sorting of pearls.
4. Marketing of pearl.
5. Visit to a pear production site.

Recommended Readings:

- Srivastava, C.B.L. 2014. Fishery Science and Indian Fisheries.
- Far, A. E. 1986. Pearls. Butterworth Heinemann publications.
- Beveridge, M.C.M. 1987. Cage aquaculture. Fishing News.
- Bardach, J.E.W . 1972. Aquaculture farming and husbandry of freshwater and
Sorting of Pearl. Marketing and economics concerned with Pearl Culture. Generation
marine organisms
- Dobilet, D. 199. Pearl Farming. Australia: Nat Geographic Mag publication.

Examination scheme and mode:

Evaluation scheme and mode will be as per the guidelines notified by the University of Delhi