



Aquaculture Training

Course Objective

To provide participants with basic understanding of the principles of aquaculture while introducing them to the various techniques and management systems involved in making aquaculture a good investment alternative.

Course description:

This aquaculture production course is designed to assist participants in developing their knowledge and understanding of aquaculture and enable participants make reasonable assessments of the aquaculture enterprise, opportunities and limitations including current breeding, feeding, water quality, production technologies and management practices.

Course Overview:

Aquaculture is now recognized as the fastest growth sector of agribusiness on a global scale with an estimated annual increase in production amounting to over 10% with nearly 50% of total seafood production derived from various culture systems (FAO 2006). Over half our seafood now comes from aquaculture and that proportion increases every year. This training provides a broad overview of all aspects of aquaculture so that interested participants would acquire enough knowledge to become successful aquaculture producers.

Course Benefit

At the end of the program participants should be able to;

- Understand the various components of Fish Farming
- Recognize the various Fish Culture Systems and Management
- Understand Water Quality Management system
- Understand the Fish Health Management Systems
- Know how to keep good records
- Understand better the Fish Processing and Preservation methods

- Know how best to market their Fish produce

Course Content

1. TYPES OF FISHERIES

- Capture Fishery
- Culture Fishery

2. INTRODUCTION

- What is Fish Farming?
- Major Components of Fish Farming.
- Types of Enclosures.
- Forms of Fish supply.
- Advantages of Fish Farming over others.

3. FISH CULTURE SYSTEMS AND MANAGEMENT

- Fish Culture Systems
- Types of Ponds
- Advantages & Disadvantages
- Pond Construction
- Factors Considered for site selection
- Farm Management

4. HATCHERY MANAGEMENT AND FISH SEED PRODUCTION

- What is Hatchery?
- Location and organization of Hatchery
- Methods of Seed Propagation
- Quality of the water in the hatchery
- Brood stock Management & Selection
- Hormone Administration
- Extraction and preparation of pituitary gland
- Artificial Hormones
- Hormone Injection
- Stripping
- Fertilization/Incubation of Eggs
- Hatching
- Fry Management



5. FISH FEED FORMULATION AND NUTRITION

- Importance of Feed in Aquaculture.
- Basic Components of Artificial Feed.
- Fish Feed Ingredients Processing and Feed Production Technology.
- Types of Feed and uses.
- Methods of Ration Formulation.
- Feed Conversion Ratio.
- Feed Handling and Storage.

6. WATER QUALITY MANAGEMENT

- Definition of Water Quality.
- Chemical Parameters.
- Physical Parameters.
- Biological Parameters.

7. RECORDS KEEPING

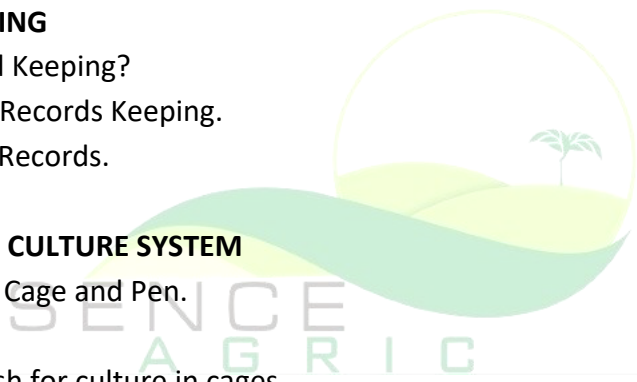
- What is Record Keeping?
- Importance of Records Keeping.
- Types of Farm Records.

8. CAGE AND PEN CULTURE SYSTEM

- Introduction to Cage and Pen.
- Types of Cages.
- Attributes of Fish for culture in cages.
- Site Selection.
- Factors for selecting a site for the cage culture.
- Site Quality Analysis.
- Technical Details of the cage.
- Management Practices in cages.
- Advantages of cage culture.

9. FISH DISEASES AND CONTROL

- Definition of disease.
- Key Factors Associated with Disease Outbreak.
- Overview of Common Fish Pathogens.
- Diagnosis.
- Treatment.
- General Control Measures.



- General Signs Observed When Fishes Are Infested by External Parasites.
- Non-Infectious Diseases.

10. FISH PROCESSING, PRESERVATION AND MARKETING

- Introduction.
- Fish Preservation and Processing
- Pre- process Operations.
- Chilling as a Method of Fish Preservation.
- Fish Filleting.
- Smoking as a Method of Fish Processing.
- Marketing of Aquaculture Products.

Training Methods

The training methods to be adopted include a combination of lectures, site inspection and field tours of various commercial fish farms.

