STAC

SEPANG TODAY AQUACULTURE CENTRE

(0031400-X)

Fresh Water Prawn Grow-out Training Course

Theory **And**

Practical works

INTRODUCTION

The productivity of udang galah has been improved greatly in the recent year, since the research done on the pond dynamics prawn population dynamics and application of bioengineering. The production per cycle of 1,800 kg per acre is enhanced by the application of good balanced ecosystem management, balanced feed and sound scientific technology. The training program is specially designed and tailor made that provides the necessary skill and knowledge in an effort to educate the relevant farm assistants, aqua-farmers or officers from the government and private sectors.

OBJECTIVE

At the end of the program the participants would be able to:

- Understand the biology and ecology of udang galah.
- Know how to design and manage uduang galah pond system
- Increase productivity and reduce production cost
- Identify and control diseases and predator
- Maintain an environmental friendly farming system

COURSE CONTENTS

- Biology and ecology of udang galah
- Pond dynamics and ecosystem
- Chemicals used in udang galah farming and dosage of application
- Method of farming
- Stocking and pL selection
- Feed and feeding
- Pond preparation and farm management
- Disease, predator and control
- Harvesting
- Practical

METHODOLOGY

- Lecture
- Assessment test
- Discussion
- Questions and answers
- Practical

TARGET GROUP

- New Investors or aqua-farmers without aquafarming skill and knowledge

Duration

- Taylor made for the participants 3-5 days

VENUE

- At STAC farm

Part I

Fresh Water Prawn Farm Operation Technical Transfer Course

Theory

1. Biology And Ecology Of Udang Galah (Macrobrachium rosenbergii)

    a. Morphology and anatomy of Udang Galah
    b. Life cycle
    c. Population dynamics and organizational hierarchy
        i. Solution of heterogeneous individual growth of male population (Small claw, blue claw, orange claw and etc.
        ii. Solution of female population (Berried female, spawned female, virgin female)

2. Site Selection And Farm

    a. Water supply
    b. Soil condition

3. Farm Design And Pond Construction

    a. Water gate, supply canals and harvesting pits.
    b. Application of substrate for enhancement of productivity.

4. Pond Dynamics And Ecosystem

    a. Chemical factors: pH, dissolved oxygen , salinity, alkalinity, soluble iron, ammonia, hydrogen sulfide, methane gas, nitrite.

    b. Physical factors : temperature, turbidity, transparency, tide, rainfall.

    c. Biological factors:

        i. Microscopic organism - useful plankton / harmful plankton.
        ii. Macroscopic organism - harmful and useful insects – aquatic weeds, fishes, birds, reptiles, frogs and otters.

5. Chemicals Used In Udang Galah Farming And Dosage Of Application

    a. Lime - burnt lime , hydrated lime , agriculture lime , cement, dolomite
    b. Tea-seed cake, fertilizers, organic & inorganic
    c. Pro-biotic, vitamins and etc.

6. Method Of Farming

    a. Nursery stage
    b. Growth-out stage
    c. Partial harvest and grading
    d. Application of substrate (use of vertical netting and horizontal netting)

7. Stocking And pL Selection

    a. Counting and hapa net observation
    b. Stress test
    c. Estimating survival in pond

8. Feed And Feeding

    a. Types of feed
    b. Feed storage

9. Pond Preparation and farm management

    a. Liming, application of fertilizer and natural food culture.
    b. Records and water parameter monitoring
    c. Feeding tray inspection
    d. Cost analysis

10. Disease , Predator And Control

    a. Fungus, bacteria, virus and protozoa
    b. Blue green algae and red tide organism.
    c. Fish, insect, frog, bird, lizard and mammal.

11. Harvesting

    a. Timing of harvest
    b. Method of harvest

Part II
Practical works

For practical works in Udang Galah farm, the duration is 3 days
Venue: Identified Udang Galah farms in Negeri Sembilan

1. Farm Facilities

    a. Pond shape and size
    b. Depth
    c. Bunds

2. Water Management

    a. Water supply
    b. Treatment
    c. Application of water analysis test kit
    d. Identification of different chemicals and feed used in Aquafarming
    e. Distribution
    f. Discharge
    g. Aeration

3. Farm Operation

    a. Pond management
    b. Stocking
    c. Feeding
    d. Harvesting

4. Site Observation

    a. Study the structure of Udang Galah
    b. Growth sampling

5. Problems

    a. Predations
    b. Water quality
    c. Weeds
    d. Disease
    e. Alternative Rearing Techniques
        i. Nursery pond
        ii. Grow-out Farming
            ~ Poly-culture
            ~ Monoculture

Part III
Assessment Test
Question and answer

Berried female - slow

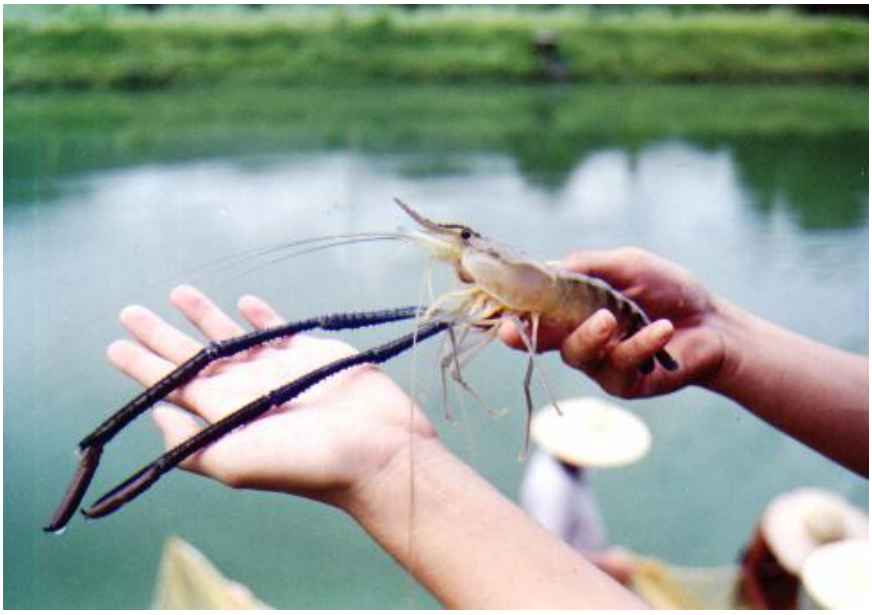
Aerial view of a fresh water prawn farm at Titi of N.S

Blue Claw Male

Vertical Netting for productivity increment

Application of netting

Berried females - No growth during egg incubation



Blue claw male - Slow in growth.

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