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LESSON NOTES

School: Ba Sangam College
Subject: Agricultural Science

Year/ Name: 13 _____
Worksheet: 22

Strand	AS 13.4 Livestock Production
Sub Strand	AS13.4.1.3 Challenges and Suggested Solutions
Content Learning Outcome	Explore and outline the classification, species and the major groupings of Crabs in Fiji.

LESSON: SUMMARIZED NOTES ON CRABS

LESSON OUTCOME: At the end of this lesson the student will

- i. discuss classification of crabs, site selection, crab nursery design, history, management practices, diseases, harvesting methods, post -harvest management, uses of crabs and its by- products.

Notes:

Classification Of Crabs	Livestock: Crabs Phylum: Arthropoda Class; Malascostraca Order: Decapoda
Site Selection	Site selection should be based on land availability, cost, existing infrastructure and proximity or logistical connections to grow-out areas. Other factors to consider are transport (air, sea and road); availability of staff; accommodation; political stability; supplies; services available; power and water supply; proximity to markets; potential for flooding or other natural disasters to affect operation
Crab Nursery Design	To maximize the survival of megalopae during transport to nursery operations a stocking density of 50–100 per litre has been found to be optimal for transport times of up to 12 hours. While juvenile mud crabs (crablets) can be grown successfully across a wide range of temperatures and salinities, optimal conditions for their growth and survival appear to be at 30 C, and salinities of 10–25 ppt, while salinities of 36 ppt and 48 ppt have been reported to have a detrimental effect on crablets growth.

Grow-out operations	Preferably, all stock should arrive at a farm with health checks already completed. Even with a clean bill of health, the quality of crablets (and juvenile stages of other species being stocked for polyculture) must be assessed for quality prior to stocking
Management Practices	Proper monitoring of collected information can help the farmers to better adopted practices that will allow good yield and more profit.
Diseases	<p>Virus:</p> <ul style="list-style-type: none"> • Mud crab reovirus • Mud crab muscle necrosis virus <p>Bacteria:</p> <ul style="list-style-type: none"> • Red sternum syndrome • Chitinoclastic bacteria <p>Parasitic barnacles:</p> <ul style="list-style-type: none"> • Sacculina granifera • octolasmis spp <p>Parasitic:</p> <ul style="list-style-type: none"> • “Milky disease”, “bitter crab disease” (BCD), “pink crab disease” (PCD), “yellow water disease” – hematodinium
Harvesting Methods	<ul style="list-style-type: none"> • Crab pots of various designs can be used to harvest crabs. These are baited with food attractive to crabs. It is found that the largest crabs in a pond tend to enter traps first. To complete the harvest, either trapping is continued until no more crabs are trapped, or the pond is drain harvested, with crabs collected from the pond’s drain or the lowest part of the pond. • Harvesting is done with different kinds of trap like the bamboo cage, lift net, scissors net, fish corrals and gill nets.
Post -Harvest Management	To get good quality crab for the market, it is important to keep them under suitable environment. Cleanliness and proper hygiene together with proper harvesting, post- harvest management and marketing could result in profit.
Uses Of Crabs and Its By-Products.	<p>Uses of crabs:</p> <ul style="list-style-type: none"> • Crab chips • Crab stick <p>Uses of crab by products</p> <ul style="list-style-type: none"> • Crab meal for livestock/ shrimp • shells for decorations • use as fish bait

Activity Worksheet 22

1. Discuss other species you have seen and discuss their characteristics.

(3 marks)

2. Discuss the site selection of various crab rearing environment.

(2 marks)

3. Identify the similarity of the various site selection

(2 marks)

4. List and discuss the differences between earthen nursery, tank and Net cage.

(3 marks)

5. Discuss how you can prevent problems under the tank system.

(2 marks)

6. Differentiate between monoculture, mono sex monoculture, polyculture stocking.

(3 marks)

7. Discuss how the growing out and stocking operations are carried out

(2 marks)

8. Discuss the importance of monitoring farm activities.

(2 marks)

9. Discuss the effect of diseases on CRAB farm farming.

(2 marks)

10. Differentiate the two harvesting methods discussed in the lesson.

(2 marks)

11. Discuss the reason for crab fattening before marketing

(3 marks)

12. Discuss how stress could affect crab quality.

(2 marks)

13. Name some other uses of Crabs and its by- product that are not mentioned in this lesson.

(2 marks)