

MBM-CARI-XI

Mud Crab Culture

Rationale

Mudcrabs, *Scylla serrata* (Forsk.) are abundantly available in the mangrove areas of Andaman Islands. Fishing of mud crab is done in the area at subsistence level by the fishermen with the help of a long thick-wire or by employing bait net. The fishing method undertaken is cumbersome and time consuming. Secondly intensive fishing may deplete the crab population which is not desirable. It is in this context culture of mudcrab can be undertaken in places adjacent to mangrove areas or saline affected soils of Andamans. Sensing the prospects of such type of culture, Central Agricultural Research Institute, Port Blair has initiated experimental culture of mudcrab in the brackishwater ponds at Sipighat, Andamans.

Andaman and Nicobar Island are bestowed with about 17% of total mangrove area of Indian and have got a good population of mud crab. Although indiscriminate fishing may eventually lead to a heavy toll on the adult mud crab, especially on mature female crabs or berried crabs, in order to overcome this difficulty, culture of mud crabs from juvenile to marketable size can be undertaken in the fallow land or salt affected land in Andamans.

Experiments conducted during 1992-1994 indicates that a maximum production of 900 kg/ha/yr is possible. The main constraints of mud crab culture is uncertainly regarding availability of wild juveniles at desirable time, this problem can be tackled with research activities on seed production of mud crab by establishing a suitable hatchery.

Types of Culture

Two types of culture are practiced

1. Rearing of juvenile crabs for a period of 3-4 months in earthen ponds provided with proper fencing to prevent the escape of reared crabs.
2. Rearing of "water crabs" in suitable earthen ponds, pens are cages for a period of 3-4 weeks, which is called as "fattening".

Suitable site selection

Grow-out ponds can be constructed in tidefed estuaries, backwaters and creeks. The crab ponds can also be established in traditional fish/ shrimp farms, by converting one portion adjoining the brackishwater canal, which would help increase the overall income of traditional fish/ shrimp farmers.

Grown out culture

Mud crabs can be cultured in brackishwater ponds with suitable modification. A case study of an existing (0.10 ha) earthen pond for mud crab culture is given below.

Investment

Pond size : 0.10 ha

Culture period : 6 months

Size at stocking : 50 - 60 g

Stocking density : 500 nos./ha

Survival % : 60%

Average weight at harvest : 260 gms

Yield/ crop : 78 kg

Cost of fencing with Bamboo mat for 3 yrs. : Rs. 3300

Cost of fencing / crop : Rs. 550

Cost of feed / crop : Rs. 550

Cost of juveniles @ Rs.3/ juveniles : Rs. 1500

Income for selling 78 kg crab @ Rs.60/kg : Rs. 4680

Net income : Rs.2080/crop

For 2 crops the Income from 0.1/ha pond : Rs. 4160

For 1 ha pond : Rs. 41600

This economics is based on local market price of crab i.e. Rs.60/kg. In the event of development of export market, the crab price may shot up to Rs.100/- kg, therefore a 2.5 fold increase in income can be expected.