Indian Pompano, new candidate for Indian Mariculture

ICAR-CMFRI standardises farming technology of the species for marine cages

In a major achievement that would help transform lives of fishermen across coastal region of the country, ICAR-Central Marine Fisheries Research Institute (CMFRI) has successfully standardised the farming protocol of Indian Pompano, a new candidate species for Indian mariculture. Indian pompano (*Trachiotus mookalee*) is a pelagic fish species belonging to the family of Carangidae. This fish has immense potential for mariculture as it has fast growth rate, easy adaptability to farming environment, acceptability to formulated feed, firm white as well as tasty meat and high market demand. It is a newly bred marine finfish, adding to list of available candidate fishes for mariculture. Breeding technology for the species was developed by Vishakhapatnam Regional Centre of ICAR-CMFRI during 2017. Since then seeds of the species have been constantly produced with good survival rate and experimental farming has been carried out in marine cages. Now, the Institute has successfully standardised the viable farming technology of this species for marine cages.

Sea cage farming is an aquaculture production system where juveniles of commercially important aquatic finfishes and shellfishes are stocked in cages, fed and grown to marketable sizes. Marine fish farming in cages is a lucrative business for poor coastal communities providing an important source of income. Fingerlings of Indian pompano (0.5-1.0 g) produced at Mariculture Hatchery of CMFRI, Vishakhapatnam centre stocked in hapa @ 300 nos./m^3 for nursery rearing. Nursery rearing was carried out for a duration of 2 months during which fishes grew from 0.5 – 1.0 g to 30-35 g with survival rate of >90%. While in nursery, the fish fingerlings were fed at 10-8% of the body weight with a feeding frequency of four times in a day. In the nursery, high protein pellet feed (45% Crude Protein and 10% Crude Fat) of different sizes (1.2, 1.8 and 2.0 mm) were used according to growth. After 2 months of nursery rearing, the fishes were transferred to cage culture system for farming.

Circular High Density Polyethylene (HDPE) cage of 6 m diameter having net depth of 4 m was installed using single point revolving mooring system and was stocked with Indian pompano fingerlings (10 g) in May 2019. The fingerlings were produced in Mariculture Hatchery of Vishakhapatnam Regional Centre of ICAR-CMFRI. The stocking density was 25 numbers / m^3. The fishes were fed with artificial pellet containg 40% protein and 10% fat twice a day. Feeding was done 5-8% of biomass initially which was later reduced to 2-3%. Partial harvest of one cage was performed on 28th January, 2020 after approximately eight months of culture. Survival rate was >95%. FCR calculated was 1:1.75.

Around one-fourth of the cage biomass amounting to 488.5 kg was harvested and handed over to Mr Anil Kumar, the beneficiary. Subsequently, each week, the remaining biomass was harvested. In total, 1.9 tonne of Indian pompano was harvested from a single cage. The harvest was carried out in presence of Shri Mopidevi Venkaramana Rao, Minster for Animal Husbandry, Fisheries and Marketing, Govt. of Andhra Pradesh; Shri Simhadri Ramesh Babu MLA, Avanigadda; Shri G Rathinraj, Executive Director (Tech.), NFDB, Shri Dronamraju Srinivasa Rao, Chairman, VMRDA; Joint Director, Department of Fisheries, Govt. of Andhra Pradesh and other officials of state and centre. The harvested fish was sold to an enterpreneur at ₹320/kg. This successful cage harvest of Indian popmpano is expected to trigger large scale development of cage mariculture in the country.

A net profit of ₹one lakh/tonne of fish will be realised by undertaking pompano farming in cages. This economic performance will attract fish farmers to adopt this farming practice ushering in a blue revolution in the country.

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