

Suitable wet feed and feeding Protocol For Developing Cobia Broodstock

Squid and sardine feeding result in quality matured gonads

Technology Description

The combination of feeding squid and sardines was found to enhance the gonadal maturation of cobia in 6 m diameter circular HDPE sea cages. In a week period squid was given five days and sardine was given two days at ad libitum daily. Adult cobia of 3 to 4 kg has reached 12 - 13 kg in a period of 6 months. The ova size was measured 800 - 900 micron in female brood stock and condensed milt observed in male cobia brood stock during cannulation.



Name of institute:
Fisheries College and Research Institute,
Thoothukudi
Stage of development:
Ready for commercialization
Patent status: No

Scientific Experts:
Dr.N.Felix



Background

- 30.3.2009 Cobia Launch Workshop
- 26.03.2010 Workshops on Value addition of cobia fish and Advanced packaging technologies
- 11.01.2011& 12.01.2011 Workshop on marine fish farming with reference to cobia for livelihood improvement of fisherfolk
- 11.04.2011 Workshop on cobia and other marine finfish farming
- 01.03.2013& 02.03.2013 Workshop on cobia culture

Benefits / Utility

Development of good Broodstock results in synchronised breeding and thereby the seed production of cobia can be enhanced. A new alternative finfish species to shrimp will provide more job opportunities to coastal fisherfolk. Mariculture entrepreneurship will be developed thereby marine fish aquaculture production in India

Country Context

In India, marine finfish aquaculture is in low profile. In Coastal aquaculture, shrimp aquaculture alone is flourishing and recently the Seabass came to picture. Before this project, Cobia seed production

Scalability

The fecundity of cobia is from 4 lakhs to 50 lakhs. By developing quality broodstock with better feeding protocol, it is possible to reach the maximum level of fecundity and also the synchronisation of both male and female breeding is achieved.

Business and Commercial Potential

γ Domestic and export demand for cobia γ Sashimi grade cobia has good market in South East Asian Countries γ Fast growing - Grows to 5-6 kg in a year γ Good meat quality - White flesh γ Cobia Hatchery unit can attain high profit

Potential investors to this technical innovation

γ Farmers γ Fishermen γ Entrepreneurs γ Feed companies γ Hatchery operators γ Multinational companies



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Financials

Expected economics of Broodstock development in sea cages - 100% survival		
Recurring cost Adult Cobia (2nos.)	-	Rs. 2000.00
Manpower	-	Rs. 2000.00
Squid and sardine for cobia fishes	-	Rs. 12000.00
Fuel for boat	-	
Total	-	Rs.16000.00
Income		
Sale of 2 nos. of broodstock	-	Rs.30000.00
Profit	-	Rs. 14000.00

Note: Since the wooden cage along with cage nets already installed in

Target Market / Customer

γ Breeders γ Hatchery units γ Research organisations γ Cage farmers γ Pond culture farmers

Limiting factors for large scale commercialization

γ Assured adequate supply of cobia seeds is the bottleneck. γ Cobia hatchery units at farmers' level need to be started. γ Since cobia is a new candidate species for aquaculture in India, farmers are reluctant to take up farming. γ Shrimp aquaculture is short term crop while cobia is long term crop (almost twofold increase in culture period) γ Channelized cobia export market need to be identified. γ Formulated feeds to be produced at reasonable price since the Food Conversion

Social impact of the technology

γ Fishermen could earn income during fishing holidays and non fishing seasons γ Self employment for rural poor and fisherfolk. γ Jobs could be created for unemployed rural youth so that rural entrepreneurship will be developed. γ Standard of living of fisherfolk could be improved.

Any other relevant information

γ The cobia seed production and availability should be ensured since the seeds are important input for farming of cobia. γ Since the cobia aquaculture is new to Indian context, the farmers should be encouraged to involve in this farming by implementing subsidy