



ICAR-CIBA - a nodal R&D agency working in brackishwater aquaculture for the past three decades with a vision of environmentally sustainable, economically viable and socially acceptable aquaculture technologies, system interventions, technology backstopping and policy inputs by the institute, contributing to economic benefits of the sector which has already recorded annual export revenue of ₹ 20,000 crores apart from domestic consumption.

INDIGENOUS SHRIMP FEED TECHNOLOGY

ICAR-CIBA

Feed being a critical input in shrimp farming, this not only determine the growth performance of the shrimp, but also a key factor related to cost of shrimp production and sustainability. In the beginning, Indian shrimp farming sector was completely dependent on imported feeds. No single public or private entity was having the technology to manufacture pelleted sinking feed for shrimp. Visualizing this as a critical obstacle, ICAR-CIBA developed, tested and commercialized an indigenous feed manufacturing technology as pioneer in India.

Highlights of the expertise/technology

- Compressed pelleted feed using ring die pelletizers
- Indigenous machineries.
- Technology package involves, establishing the feed mill, formulation, periodical auditing of the formula, process of feed manufacturing, and evaluation of processed feed.
- Uses low cost locally available ingredients.
- Cost effective customizable formulation.
- Optimum in meeting the processing needs and shrimp nutrient requirements.
- For all the life stages of shrimps in different particle sizes
- Extensively field tested and demonstrated



Transfer of technology and commercialization

- The feed technology was transferred to M/s Bismi Feeds Ltd., Tamil Nadu on non exclusive basis. Bismi feeds built a feed mill with capacity of 1 ton/hour and 3000 tons/ annum with a total investment of Rs. 2.5 crores. The feed was officially launched on 11-10-2008 and distributed to the farmers.
- From year 2008 to 2011 they have produced around 7200 tonnes of feed and paid Rs. 3.64 lakhs as royalty to ICAR-CIBA @ of 5 paisa / kg feed sold



Impact of the technology

- In the beginning only 6 feed companies existed in India with overseas technology. Presently there are more than 25 organised shrimp feed mills and 15 small feed mills with installed capacity of 9 lakh tones/annum, worth Rs. 6500 Crores.
- Though CIBA technology able to meet only 2 to 3% of the total needs at that time, it very much served as a benchmark for pricing as well as to compare the performance of the other commercial feeds evolving in the Indian market.
- To cater the fishmeal demand for shrimp feeds, hi-tech fishmeal plants has increased from 12 numbers in 2008 to > 40numbers in 2015 with total production capacity of 1.2 lakh tones worth Rs. 1000 crores. They convert low value fish and fish trimmings in to a valuable fishmeal, which otherwise used as fertilizer.

Services Offered

- Detailed Project Report including sourcing of equipment, chemicals and reagents
- Training of technical personnel
- Transfer of technology on non-exclusive basis

Sources

- Prawn feed plant at Perunthottam inaugurated; <http://www.thehindu.com/todays-paper/tp-national/tp-tamilnadu/Prawn-feed-plant-at-Perunthottam-inaugurated/article15320688.ece>
- CIBA Shrimp Feed; http://krishi.icar.gov.in/PDF/com_tech/Fisheries.pdf

“Brackishwater aquaculture for food, employment and prosperity”

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