



**CIFTEQ® MATSYA**

## **Aquafeed for a sustainable future**

Aquaculture accounts for a significant share of the world's fish production. ***Feed is the primary fish culture input, accounting for about 50-60% of the variable production costs.*** Generally, fish meal is added as a source of protein in compounded feeds, including aquafeed. However, the limited availability and high price of fish meal in the International market have resulted in searching for alternative protein sources.

Fish vending markets and outlets generate a considerable quantity of ***discards rich in high-quality protein, fat, minerals, and other vital micronutrients.*** Fish frames and other discards contain significant amounts of muscle proteins and better balance of dietary essential amino acids compared to all other animal protein sources. Converting fish discards into feed for aquaculture and poultry is a necessary option for utilising unsorted waste from fish markets. ***There is a growing demand for affordable floating feeds, due to the intensification of aquaculture activities.*** Choosing the suitable feed, using a correct feeding method, and calculating the feed cost to ensure cost-effectiveness are important in the scientific and successful management of fish farms.

### **TECHNOLOGY ADVANTAGES**

Total utilisation of fish waste	Simplified process with all nutrients preserved intact	Affordable cost of operation	The process can be modulated to produce feed for a wide range of species and sizes of fish
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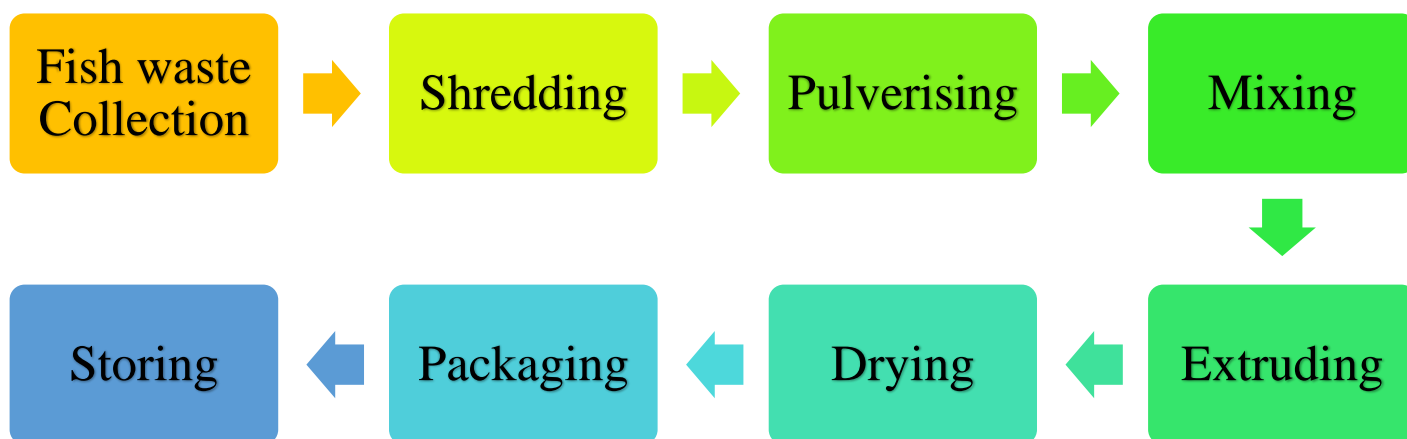


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To address the problems of handling fish cutting discards comprising head, bones, skins and visceral mass, **ICAR - CIFT** has standardised a simplified process for direct conversion of fish market discards into high quality floating/sinking fish feed. By this intervention, the cost element could be considerably reduced.

For pilot production and business plan development, *a customised machinery line with a processing capacity ranging from 50 kg to 1-ton fish feed/ day is designed and installed at the CIFT campus.* The cost of the machine line ranges from Rs. 3 to 15 lakhs. The machinery in the production line includes a shredder, pulveriser, mixer and extruder.



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