



# Density-dependent weight-specific feeding technique & management for fish and prawn

## TECHNOLOGY BRIEF

After studying the feed preference and intake pattern of fish and prawn through gut content analysis & Matrix of dietary overlaps in the integrated rice-fish system, density and weight specific feeding schedule has been developed for enhancing growth and survival. Also developed and standardized, density and weight-specific feeding schedule for monoculture of Pacific white shrimp *L. vannamei* & black tiger shrimp *P. monodon* under semi-intensive culture system based upon the mean body weight (g), % feed, Feed type/code, Feeding frequency, % lift net, and Time control. This technique helps in reducing size heterogeneity, morphotypic existence & weight distribution of fish and prawn, enhancing the yield performance by 16-22%. This feeding technology has the potential in enhancing net water productivity, while significantly reduce the input (feed) cost without hampering the growth, survival and yield performance. This feeding technique also significantly improve the performance index (PI), production-size index (PSI) and productivity of cultured species.

## IMPACT / UTILITY

Mass scale adoption of this feeding technology for *L. vannamei* and *P. monodon* has been carried out by OSFA in 28 farmer's field at Balasore, Jagatsinghpur, Bhadrak and Kendrapara districts of Odisha state, comprising water surface area of 181 ha. This feeding technique has the potential for enhancing the growth, production and profitability and is applicable in the monoculture of *L. vannamei* and *P. monodon* and also in IMC-prawn polyculture in rice-fish refuge system.

## Project Details

Water budgeting in grow-out aquaculture of some commercially important fish and prawn species (Project Code: DWM/9/144)

## Publications

- Mohanty et al., (2018) Aquaculture, 485: 210–219
- Mohanty et al., (2010) Aquaculture Research, 41: 1402-1412
- Mohanty et al., (2001) Aquaculture International, 9(4): 345-355

## HIGHLIGHTS

- Improve water productivity & FCR.
- Regulating unnecessary wastage of feed which accounts 60-70% of operational cost (maintain pond bottom & water quality).
- Lessening pollution potential, effluent output, & waste load.
- Enhance the yield performance by 16-22%.



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