

STUDY ON WATER QUALITY PARAMETERS, FEED MANAGEMENT AND GROWTH OF *PENAEUS VANNAMEI* (BOONE, 1931) IN THE SELECTED CULTURE PONDS OF VELLURU VILLAGE, KONASEEMA DISTRICT, ANDHRA PRADESH.

Information

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- (1) Feed conversion ratios
- (2) Average body weight
- (3) survival rate
- (4) Stocking density

Résumé (Abstract)

The present study explores the sustainable aquaculture of *Litopenaeus vannamei* (Pacific white shrimp) through the implementation of best management practices at V.V.R. Aqua Farm in Amalapuram, Konaseema district, Andhra Pradesh. This project aimed to monitor the growth, survival, feed efficiency, and water quality parameters across four culture ponds (B1–B4) while evaluating the effectiveness of various pond preparation techniques, feed strategies, and biosecurity measures.

Dry method pond preparation, soil enrichment, and water treatment using probiotics and disinfectants were employed to create optimal conditions for shrimp culture. Feed management using Avanti's MANAMEI feed, combined with daily check tray monitoring, helped regulate feeding rates and improve feed conversion ratios (FCR). Water quality parameters such as pH, salinity, and temperature were routinely monitored to ensure a healthy culture environment.

Among the four ponds, Pond B3 demonstrated the best overall performance with the highest average body weight (28.51 g), lowest FCR (1.31), and highest feed conversion efficiency (FCE 0.76). Conversely, Pond B4, despite the highest survival rate (89.55%), recorded the lowest growth performance, indicating issues with feed utilization and stocking density.

The study concludes that scientific shrimp farming using *L. vannamei*, when guided by best management practices, is a highly effective strategy for maximizing yield and ensuring sustainable aquaculture. This project supports the potential of expanding shrimp culture in India while maintaining environmental and economic viability.

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Références

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