

INFLUENCE OF ZERO-WATER EXCHANGE CULTURE ON THE GROWTH PARAMETERS OF PACIFIC WHITE-LEG SHRIMP, *L. VANNAMEI* IN EARTHEN PONDS

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ABSTRACT

Shrimp farming has been expanding rapidly, causing pollution of coastal ecosystems due to discharge of nutrient rich water. The alternative for the sustainability of shrimp culture is considered as Zero Water Exchange Mode (ZWEM) of culture. Present study assesses growth and water quality parameters in the two culture modes – ZWEM and 10% Water Exchange Mode. The SGR, FCR, Yield and Survival recorded were 4.27 ± 0.12 ; 1.2 ± 0.3 ; 0.43 ± 0.20 ; 62.3 ± 22.7 respectively in the ZWEM and the corresponding figures in 10% Water Exchange culture were 5.10 ± 0.1 ; 1.0 ± 0.1 ; 0.61 ± 0.16 and 76.4 ± 18.5 . Though the growth parameters in 10% Water Exchange Mode were better, they are not very significant. Hence it was concluded that the ZWEM is advisable in the perspective of preserving coastal ecosystems.

KEYWORDS: Zero Water Exchange Culture, SGR, FCR, Sustainable Aquaculture