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Sustainable Aquaculture for a Secure Future

Title:

Comparative evaluation of nutritive value and economic performance of specially prepared diet for tilapia with rice bran and commercial pig finisher in Projects of Nile Tilapia (*Oreochromis niloticus*) in Fertilized Ponds.

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Abstract:

A study was conducted to compare nutritive value and economic performance of a high cost formulated pellets for tilapia (TP), rice bran (RB), and Pig finisher pellets (PFP) in production of *Oreochromis niloticus* in fertilized ponds. Sex-reversed male *O. niloticus* were stocked at a density of 19,375 fish ha-1 and Clarias gariepinus was introduced at 625 fish ha-1 to control any tilapia breeding. Fish were fed daily at 2% body weight in three treatments with four replicates for 180 days. Growth and fish yields were similar (P > 0.05) in treatments PFP and TP, but significantly lower (P < 0.05) in RB treatment. Feed conversion ratio was similar in treatments PFP and TP but significantly higher (P < 0.05) in RB treatment. Pond water quality parameters were not significantly different (P > 0.05) among treatments; exceptions were alkalinity, pH and DO, which differed significantly (P < 0.05) among treatments. Partial enterprise budgets demonstrated that net returns were positive for all the treatments, and that RB had the least investment costs. However, PFP was the most profitable while TP, gave the least returns among the test feeds. In conclusion, PFP is a suitable alternative but RB is inferior to TP in production of *O. niloticus* in fertilized ponds.

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