Growth and economic performance of Nile tilapia (*Oreochromis niloticus* L.) fed on three brans (maize, wheat and rice) in fertilized ponds

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**Abstract**

Nile tilapia (*Oreochromis niloticus* L.) was fed rice bran (RB), wheat bran (WB) and maize bran (MB) at 1.5% body weight. Fingerlings averaging 14 g were stocked at 19 462 fish ha$^{-1}$ in three treatments with six replicates per treatment. *Clarias gariepinus* was stocked at 250 fish ha$^{-1}$ to reduce the density of tilapia fry. Growth and economic performance were compared for 250 days in 0.08 ha fertilized ponds. Fish growth was highest ($P < 0.05$) in MB and least in RB treatment. Growth in WB treatment was intermediate. Feed conversion ratio in MB and WB treatments was similar ($P > 0.05$), but significantly higher ($P < 0.05$) than in RB treatment. Water quality parameters were similar ($P > 0.05$) among treatments. At retail price of US$ 1.28 kg$^{-1}$ fish, returns above both variable and total costs from MB and WB treatments were positive, while those from RB were negative. However, at US$ 1.79 kg$^{-1}$ fish, all test-feeds had positive returns above variable and total costs. In conclusion, MB treatment produced the highest growth, but the highest profitability was obtained in the WB treatment. Under present study conditions, RB was not cost-effective in the production of *O. niloticus*. A selling price of US$ 1.79 kg$^{-1}$ fish is recommended.