

Effect of Stocking Density and Feed on Growth of Improved (F5) Mono-Sex *Oreochromis Shiranus* Reared in Tanks

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Abstract

A study was undertaken to determine the effects of stocking density and type of feed on growth of mono-sex culture of improved strain of *Oreochromis shiranus* reared in tanks. The fish stocked at 3 fish/m² and 5 fish/m² replicated three times were randomly assigned to Malawi Gold Standard (MGS) and maize bran (MB) diets. The fish were cultured for 42 days. Results showed that the mean weight gain and gain in standard length were inversely proportional with stocking density. Treatments fed MGS and a stocking density of 3 fish/m² had higher mean body weight gain (4.37 ± 0.284 g) and standard length gain (3.07 ± 0.111 cm) compared to 2.60 g and (2.25 ± 0.120 cm) for weight gain and gain in length for treatments fed MB at 5 fish/m² respectively. There were significant differences (P<0.001) between

A total of 300 fry were collected for stocking and were weighed and length recorded before stocking at a density of 3 sh/m² and 5 sh/m² in different treatments with stocking density of 3 sh/m² given Malawi Gold standard as feed, stocking density of 3 sh/m² given maize bran as feed, stocking density of 5 sh/m² given Malawi Gold standard as feed and stocking density of 5 sh/m² given Malawi maize bran as feed

Malawi Gold Standard and Maize bran were prepared as feed for the fry after stocking. The MGS and maize bran were provided as feed in different treatments to assess growth performance of fish given different feeds.

Experimental design

The factorial experiment was set in 12 tanks using completely randomized design (CRD) whereby it was assumed that the environmental conditions were constant in all treatments. Each treatment was replicated three times to reduce errors. The study had 4 treatments namely; 3 sh/m² fed MGS, 3 sh/m² fed MB, 5 sh/m² fed MGS and 5 sh/m² fed MB.

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Citation:

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