

**GROWTH PERFORMANCE OF GENETICALLY IMPROVED
FARMED TILAPIA FRY REARED IN A CAGE CULTURE SYSTEM ON
THREE EXPERIMENTAL FEEDS**

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The growth performance of Genetically Improved Farmed Tilapia (GIFT) fry reared under three artificial feeds were evaluated for final weight gain (FWG) and specific growth rate (SGR) over a period of 45 days in a cage culture system. Two laboratory-formulated diets having crude protein (CP) levels of 26% and 30% respectively and a commercially available feed for fry having 36% CP were used in this study. A total of 6660 fry having an average initial weight of 0.43 ± 0.02 g were stocked in nine cages (each with 2 m³ water capacity), with three replicates for each feed, at a stocking density of 370/ m³. At the end of the study period, the final weights of fingerlings (30% of the total from each cage) were recorded using an electronic balance and the FWG, SGR and cost effectiveness were calculated. The data were analysed using a one-way analysis of variance and post hoc tests. The average weight gains with 36%, 30%, 26% dietary CP was 2.83 ± 0.14 g, 2.46 ± 0.15 g and 2.23 ± 0.08 g respectively. Although the growth performance was comparatively better in fry fed with commercial feed, there was no significant difference ($p \geq 0.05$) in FWG and SGR between the commercial feed and the 30% CP feed. Feed having 26% CP also had a reasonable SGR and FWG but these parameters were significantly lower than with the 36% CP feed. The mean survival rate of fingerlings for feed with 36%, 30% and 26% of CP were 83%, 82% and 84.5% respectively. The cost of commercial feed used in this study was approximately 1.5 times higher than the experimental feeds. Since the growth performance in GIFT fed with 30% CP feed was not significantly different from those fed with the commercial feed, the 30% CP formulation could be recommended over the commercial feed for comparable growth and economic gain.

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