

**EFFECTS OF DIETARY REPLACEMENT OF FISHMEAL
BY CASSAVA LEAF MEAL ON GROWTH PERFORMANCE
OF PLATIES (*Xiphophorus maculatus*)**

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ABSTRACT

Because of declining global availability and increasing demand, fishmeal is a major contributor to the rising cost of fish feeds and fish production. Higher feed cost, is due to the high price for the animal protein ingredients used *viz* fishmeal, to prepare the fish feeds. Therefore, there is a great economic and environmental incentive to find less expensive protein sources to replace fishmeal in aqua-feeds. Therefore, an experiment was conducted to evaluate cassava leaf meal instead of fishmeal in platy fish diet. Young cassava leaves were collected, chopped and sun-dried to prepare cassava leaf meal. The fish feed was prepared with 0%, 5%, 10% and 15% replacement level of cassava leaf meal for fishmeal. A total of ninety six platy fish at the age of 21 days were the study population. Eight fish were used per replicate, and three replicates per treatment were allocated in a Completely Randomized Design (CRD). Feed was fed in *ad libitum* and proper water quality was maintained. The T₁ (5% cassava leaf meal) recorded highest body weight ($0.31\pm 0.03\text{g}$) and the least ($0.23\pm 0.01\text{g}$) was in T₃ (15% cassava leaf meal). The weight gain was greater ($p<0.05$) for T₁ ($68.8\pm 17.8\%$) than for T₀ ($59.4\pm 27.6\%$). There were no significant differences of total length and length gain of fish among the treatments. Highest SGR was obtained in T₀ ($2.91\pm 0.24\%$) and T₁ ($2.87\pm 0.13\%$). Best FCR (0.78 ± 0.13) was obtained in T₁ diet. Food consumption increased as the level of cassava leaf meal increased from 0% to 10% of the diet. Results indicated that, growth performance and feed utilization values were significantly ($p<0.05$) higher in fish fed with diets containing 5% cassava leaf meal, where as lower performance was in fish fed with diets containing 15% cassava leaf meal. The current study shows that cassava leaf meal can replace fishmeal upto 10% substitution level without any adverse effect on growth and food utilization performance.

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