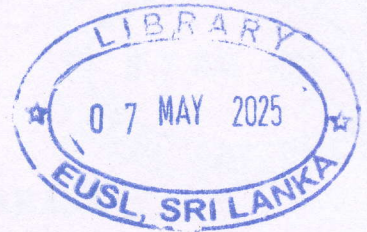
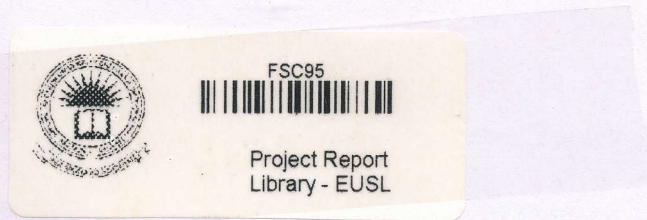


**COMPARATIVE STUDY OF THE EFFECT OF FORMULATED
FEED ON GROWTH OF NILE TILAPIA AND FINANCIAL
REVENUE IN TANK CULTURE**



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ABSTRACT

This study was aimed to compare the effects of different cost-effective, nutrition-rich formulated feeds on the growth of Nile tilapia in tank culture. The experiment was carried out from 1st September 2023 to 15th December 2023. Three different experimental diets were formulated using low-cost and freely available sources rice bran, Anchovy fish head, and *Azolla* sp. which were compared with MARAM AQUA commercial fish meal (Diet 1) (32% protein). Anchovy head and *Azolla* sp. contain high protein and potential to be used to replace fish meal. Diet 2 (32% protein) and Diet 3 (35% protein) were formulated with different formulations of rice bran and Anchovy fish head. Diet 4(35%protein) was formulated with 25% replacement of animal protein with *Azolla* sp. 13.14 ± 0.71 grams average body weight and 7.59 ± 0.49 cm average total body length of 30 advanced Nile tilapia fingerlings were stocked in each of four tanks. During the period of study, survival rate, growth performance, specific growth rate, and feed conversion ratio were monitored. Water quality parameters were also regularly measured to ensure optimal conditions for fish growth. The results showed that Diet 4 resulted in the highest weight gain (186.75±0.87g) and highest total length gain (12.24±0.53 cm), highest SGR (2.59±0.51 g/ day), and, low FCR (1.68±0.02) when compared with commercial feed. However, there was no significant difference in the survival rate among the four groups. Overall, the findings suggest that Diet 4 is low-cost, and more effective in promoting the growth of Nile tilapia in tank culture compared to Diet 1, Diet 2, and Diet 3.

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