

**B-49: Potential use of locally available raw materials for the formulation of an ornamental fish feed for fingerling culture**

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Next to shrimps, ornamental fish is the most important single item in value & volume in the fishery export sector in Sri Lanka. The potential for the aquaculture of fresh water ornamental fish exists islandwide.

Feed, the single largest operating cost item, varies from 60-70% of the total variable cost of production. Objectives of this study were to determine whether formulated feed based on tilapia fish meal could be used as a feed for ornamental fish and to determine the economics of feeding.

Formulated feed was prepared in the laboratory by mixing the feed ingredients based on tilapia fish meal. Commercial fish feed was bought from the local market.

Two groups of platy (*Xiphophorus maculatus*) of live weight ranging between 6.43-6.98 g were placed in 0.25 m<sup>3</sup> glass tanks. One group was fed with commercial feed (crude protein 38%) and the other with the formulated feed (crude protein 40%). The fish were fed at 5% of their body weight twice daily. The experimental tanks were cleaned once a week and growth measurements and water quality parameters were taken. CRD was used for statistical analysis.

The increase in weight of the fish fed with formulated feed did not show a significant difference when compared with that of the other feed. Growth in weight was expressed by the percentage weight gain (PWG). PWG for formulated feed was 43.8% & for commercial feed was 41%. Survival was 100% in all tanks & there was no significant difference, ( $p > 05$ ) of temperature & pH. Proximate composition of the 2 feeds showed that the nutritive values were equivalent.

The water quality parameters largely depend on the quality of the feed. The introduced fish did not suffer from any physical abnormalities. They were healthy and active during the entire experimental period.

The formulated feed is much cheaper (Rs.30/kg) than the commercial feed (Rs.150/kg).

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