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## **Comparative study on sensory and proximate properties of cage cultured Genetically Improved Farmed Tilapia (GIFT) fed with formulated and commercially available fish feeds**

W.A.R.K.A. Senaarachchi and M.P.K.S.K. De Silva\*

*Department of Zoology, University of Ruhuna, Wellamadama, Matara, Sri Lanka.*

Effect of two formulated diets and two commercially available diets on taste and chemical composition of fish fillets of GIFT reared in a cage culture unit was evaluated. Protein content (dry weight) in formulated and commercial feeds was 30% and 36% respectively. Each protein diet had two different lipid levels (8% and 12%). Fingerlings stocked in cages were fed with four diets for 120 days and six fish from each treatment (three from each sex) having 175 to 225 g was used for the study. Fifteen member pre trained panel assessed sensory characteristics; colour, juiciness, tenderness, oiliness, flavor and overall acceptability of steam cooked fish fillets. There was no significant difference ( $p > 0.05$ ) in all sensory characteristics tested in fish fillets between the fish fed with formulated and commercial diets. Protein, lipid and dry matter percentages were significantly different ( $p < 0.05$ ) across four treatments as well as between males and females. In contrast comparison of cumulative data of two commercial diets with cumulative data of formulated diets exhibited significant difference only in fat content. Fish fed with commercial diets having higher percentage of expensive ingredients like fish oil, quality fish meal possibly may have resulted higher fat deposition in the fillets compared to low cost formulated diets made with locally available ingredients like coconut poonac, local fish meal, rice polish and soya bean. Considering no difference in taste, overall acceptance, and three times lesser cost than commercial feeds this formulated feed could recommended for the cage cultured GIFT fish.

**Key words:** Sensory evaluation, proximate composition, fish feed, GIFT

Acknowledgement: Financial assistance by the 'Transforming University of Ruhuna to International Status' research grant RU/DVC/PRO/143 is gratefully acknowledged.

\* kumududs@zoo.ruh.ac.lk