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Studies on formulating of fish feed using locally available feed ingredients for feeding Rohu (*Labeo rohita*) with low cost

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Abstract

Feed formulation is an essentially applied nutrition and is one of the important aspects in the aquaculture industry. In this research, a preliminary investigation was conducted to assess the growth performance of Rohu (*Labeo rohita*) to different diets, prepared using locally available feed ingredients, accompanied partially with manufactured fish feed. Fish were stocked separately in four glass aquaria (10 numbers in each tank). Feeding trials were conducted for average of five months. Three different diets namely A, B and C containing animal and plant protein sources were tested on fingerlings of *Labeo rohita*. Diet A contained grounded cow heart tissue, rice bran, manufactured fish feed and coconut oil; Diet B: trash fish, rice bran, manufactured fish feed and coconut oil, Diet C soya bean, rice bran, and manufactured fish feed and coconut oil and one tank is fed with only the manufactured tropical fish feed. Fish were fed daily at a rate of 5% of total wet body weight. The total wet body weight and total length were measured once in three weeks for each fish. In addition, Feed Conversion Ratio (FCR) and Specific Growth Rate (SGR) were also determined.

The results showed that there were no significant differences among the application of different feeds, in average total length ($p=0.75$) and in average body weight ($p=0.7$) for cultured fish. The specific growth rates recorded in each diets showed no significant difference between the values ($P>0.05$). Hence, any of the prepared diets can be an effective one rather than manufactured diet because of its high cost.

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