Majid Hussain

Department of Zoology, University of Okara, Okara, Pakistan

Effects of Acidified Moringa oleifera Seed Meal Based Diets on Growth Performance, Nutrient Digestibility and Hematology of Labeo rohita Fingerlings

Overpopulation of human requiring food in form of proteins and aquaculture is the basic source of protein with lower price. However, increasing prices of fish meal and feed supply to the fish farmers are the major issues of aquaculture. Therefore, experiment was conducted to study the supplementation effect of citric acid (CA) to Moringa oleifera seed meal (MOSM) based diets on growth performance, nutrient digestibility and hematology of Labeo rohita fingerlings. MOSM based diet was sub-divided into one control diet (0% CA) and five test diets, each supplemented with 1%, 2%, 3%, 4% and 5% CA, respectively. Fingerlings were fed at the rate of 5% live wet body weight for 90 days. Significantly ($p< 0.05$) improved weight gain percent (268.04 %), specific growth rate (1.45) and FCR (1.23) was observed at 3% CA level. Fingerlings showed significantly ($p< 0.05$) higher crude protein digestibility (67.49 %) at 4% CA level. Whereas significantly ($p< 0.05$) higher digestibility of crude fat (76.71 %) and gross energy (66.49 %) was observed in fingerlings at 3% CA level. Significantly ($p< 0.05$) higher number of RBC (2.96×106 mm-3), WBC (7.96×103 mm-3), PLT (66.59), Hb (8.67 g/100ml), PCV (24.91%) and MCV (187.42 fl) were observed in blood of fish at 3% CA level. The study concludes that 3% CA supplemented MOSM based diet can improve overall growth performance, nutrients digestibility and hematological indices of L. rohita fingerlings.

Keywords: Moringa seed meal; citric acid; growth; nutrient digestibility; hematology

Biography

Dr Majid Hussain is Lecturer in Department of Fisheries and Aquaculture, University of Okara. He is the first PhD graduate of University of Gujrat. He has more than 50 research publications and supervised 14 MPhil students.