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Performances of Orechromis niloticus (Linn.) fed moringa leaf meal supplemented diets

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Utilization of moringa (*M. oleifera*) as soybean supplement in the diet of Nile tilapia (*Oreochromis niloticus*) was carried out for 12 weeks. Moringa leaf was purchased from market along with other feed ingredients. Moringa was processed by drying under shade for one week followed by blanching at a temperature of between 60oC-80oC for 15 minutes to minimize or deactivate the anti-nutritive. Moringa leaf was used at inclusion level of 0% (diet one-control), 10% (diet two), 20% (diet three), 30% (diet four) and 40% to replace soybean meal. *Oreochromis niloticus* were stocked equally in ten experimental tanks of 50 L in a semi-flow through system and each treatment was in triplicates. Weekly weights, lengths and feed intake were recorded. Fish were also subjected to proximate analysis. The results of mean weight gain shows that diet one (control) recorded the highest weight followed by diet three (20%) and diet four (30%) has the lowest mean weight gain. The fish fed diet three which contain 20% inclusion levels of PMLM has the highest FCR followed by 0%, 10% and 40% inclusion of PMLM. The fish fed with diet three (20%) has the highest SGR while the lowest is recorded in the diet five (40%) inclusion of PMLM. PER followed the same pattern. Based on the cost of feed production, diet four which contain (30%) inclusion levels of PMLM is the cheapest but the economic evaluation of the experimental diet shows diet three (20%) having highest benefit cost ratio followed by diet two (10%). Hence, the results from this study on growth performance and benefit cost ratio shows that 20% partial replacement of soybean meal is applicable and recommended for practical diet of *Oreochromis niloticus* in achieving a sustainable aquaculture.

Biography

Sogbesan Olukayode Amos has completed his PhD from University of Ibadan, Nigeria and Post-doctoral studies from Central Institute of freshwater Aquaculture, Kausalyaganga, Bhubaneswar Orissa, India. He is a Senior Lecturer and immediate past Head of Department of Fisheries, Modibbo Adama University of Technology, Yola. He has more than 50 peer reviewed journals to his credit and he is an Editorial Board Member of reputed journals.

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