

A Comparative Study on Fish Raised with Feed Formulated with Various Organic Wastes and Commercial Feed

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Abstract : Fish is among the products consumed at a very high rate. In most countries of the world, fish are used as part of the daily meal. The high cost of commercial fish feeds in Africa has made it necessary the development of an alternative source of fish feed processing from organic waste. The objective of this research is to investigate the efficacy of fish feeds processed from various animal wastes in order to know whether those feeds shall be alternatives to commercial feeds. This work shall be carried out at the Research Laboratory Unit of the Department of Human Biochemistry, Faculty of Basic Medical Sciences, College of Health Sciences, Nnamdi Azikiwe University (NAU), Nnewi Campus, Anambra State. The fingerlings to be used shall be gotten from the Agricultural Department of NAU, Awka, Anambra State, and allowed to acclimatize for 14 d. Animal and food wastes shall be gotten from Nnewi. The fish shall be grouped into 1-13 (Chicken manure only, cow dung only, pig manure only, chicken manure + yeast, cow dung + yeast, pig manure + yeast, chicken manure + other wastes + yeast, cow dung + other wastes + yeast, and pig manure + other wastes + yeast. Feed assessment shall be carried out by determining bulk density, feed water absorption, feed hardness, feed oil absorption, and feed water stability. The nutritional analysis shall be carried out on the feeds processed. The risk assessment shall be done on the fish by determining methylmercury (MeHg), polycyclic aromatic hydrocarbons (PAHs), and dichloro-diphenyl-trichloroethane (DDT) in the fish. The results from this study shall be analyzed statistically using SPSS statistical software, version 25. The hypothesis is that fish feeds processed from animal wastes are efficient in raising catfish. The outcome of this study shall provide the basis for the formulation of fish feeds from organic wastes.

Keywords : assessment, feeds, health risk, wastes

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