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**EFFECT OF STORAGE AND ANTI-NUTRITIONAL COMPONENTS IN STORED  
PELLETED FISH FEED**

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**ABSTRACT**

The effect of storage on the nutritional composition of pelleted fish feed as well as the anti-nutritional components was studied using two commercially formulated feeds: Coppens (exotic) and vital (local) feeds. Feed samples were purchased and monitored in storage at ambient temperature forth nightly for 6 weeks using standard procedures. Result obtained showed reduction in feed quality with increasing storage period with significant difference ( $P > 0.05$ ) in all nutrient components (moisture, protein, lipid, ash, crude fibre and nitrogen free extract). There was however no significant difference ( $P > 0.05$ ) between the nutritional components of both feed samples during the storage period. Anti-nutritional components detected in feed samples were oxalate, phytate and tannins with phytate having the highest values in both feed sample.

**INTRODUCTION**

Prepared feeds for fish are perishable. They are also more or less fragile depending on the type of feed. Feed processors attempt to formulate and manufacture aquaculture feeds to extend their shelf life and improve durability. However the degree to which aquaculturists can reduce wasted feed and realize its full purchase value is alternately dependent on how well the basic principles of storage and handling are understood and applied.

Microorganisms invade feeds and feed stuffs during storage causing deterioration, these include bacteria and fungi. Fungi contamination of fish feed have been reported to result in aflatoxicosis. Aflatoxins are chemical produced by fungi like *Aspergillus flavus* and *A. parasiticus* (Russo and Yonong, 2006). Mold infested fish feed have been reported to impart negatively on the growth of *Heterobranchus bidorsalis* fish (Effiong and Alatise, 2009).