ISSN: 2320-5407

International Journal of Advanced Research

Publisher's Name: Jana Publication and Research LLP

www.journalijar.com

REVIEWER'S REPORT

Manuscript No.: IJAR-52070 Date: 04-06-2025

Title: Comparative Study on the Effects of Extruded and Non-Extruded Local Feeds versus Commercial Feed on the Zootechnical Performance of Oreochromis niloticus (Linnaeus, 1758)

Recommendation:
Accept as it is……**YES……**
Accept after minor revision……
Accept after major revision ……
Do not accept (*Reasons below*) ……

Rating	Excel.	Good	Fair	Poor
Originality			√	
Techn. Quality			√	
Clarity		√		
Significance		√		

Reviewer's Name: Tahir Ahmad

Reviewer's Decision about Paper: **Recommended for Publication.**

Comments (*Use additional pages, if required*)
.

Reviewer's Comment / Report

General Overview:
The study presents a well-conceived and methodologically sound comparative analysis of feed types in aquaculture, focusing on *Oreochromis niloticus*, a vital species for global food security. The research addresses a timely and relevant issue in the context of sustainable aquaculture, particularly in developing countries like Senegal. The manuscript is clear, data-driven, and aligned with current scientific and practical concerns related to aquaculture feed formulation and cost-effectiveness.

Abstract and Keywords:
The abstract succinctly outlines the purpose, methodology, and major findings of the study. It effectively highlights the importance of the issue and presents the comparative outcomes without unnecessary technical complexity. The keywords are pertinent and enhance the article's visibility and indexing in academic databases.

ISSN: 2320-5407
International Journal of Advanced Research
Publisher's Name: Jana Publication and Research LLP
www.journalijar.com

REVIEWER'S REPORT

Introduction:
The introduction provides a solid contextual foundation for the study. It effectively integrates global aquaculture trends, challenges related to wild fisheries depletion, and the economic burden of imported feed. The authors justify the study's rationale well, especially in terms of feed cost, accessibility, and sustainability. Relevant references (e.g., FAO, Peng et al., Olaniyi and Salau) are appropriately cited to support the discussion.

Methodology:
The experimental design is well-articulated:

- Use of 180 fry and three distinct feed treatments in triplicate supports statistical validity.
- Monitoring of environmental parameters like pH and temperature ensures reliable experimental conditions.
- Biweekly weighing of fish to adjust feed rations and assess biomass demonstrates a robust approach to tracking growth performance.

The replacement of fishmeal with poultry by-product meal is clearly presented, and the study design aligns well with the objectives stated.

Results and Discussion:
The findings are clearly presented, highlighting the superior zootechnical performance of the commercial feed (R0), while also noting the cost-effectiveness and comparable performance of the extruded local feed (R1). This observation provides practical insights into sustainable feeding strategies, particularly for regions with limited access to commercial feed.

The discussion successfully links experimental findings to broader issues of aquaculture sustainability and feed formulation. It is balanced and objective, recognizing both the biological and economic dimensions of aquaculture production.

Scientific Value and Practical Relevance:
The study offers high scientific value by empirically validating alternative feed formulations. It also contributes practical knowledge that can inform policymaking and aquaculture practices in resource-constrained settings. The focus on poultry by-product meal as a fishmeal substitute is particularly noteworthy and aligns with current trends in circular economy and waste utilization.

Clarity and Language:
The manuscript is generally well-written, with logical flow and scientific precision. Terminology is appropriate for the target academic audience, and technical language is used judiciously.

ISSN: 2320-5407
International Journal of Advanced Research
Publisher's Name: Jana Publication and Research LLP
www.journalijar.com

REVIEWER'S REPORT

Conclusion:
The conclusion is well-supported by the data and reiterates the value of extruded local feed as a cost-effective alternative to industrial feed. The practical implications are clearly stated and relevant to both local producers and the broader scientific community.

Overall Assessment:
This is a comprehensive and methodologically robust study that adds meaningful insights to the field of sustainable aquaculture. Its comparative framework, clear results, and relevance to feed economy and performance in *Oreochromis niloticus* production make it a valuable contribution to scientific literature and applied aquaculture development.