

REVIEWER'S REPORT

Manuscript No.: IJAR-54148

Date: October 02 2025

Title: EFFECTS OF GLYCINE MAX AND PHASEOLUS VULGARIS CROP RESIDUES ON MANIHOT ESCULENTA PRODUCTION IN AGRICULTURAL SOIL IN THE KARAMOKOLA AREA, CENTRAL-WESTERN COTE D'IVOIRE

Recommendation:

Accept as it is

Accept after minor revision.....

Accept after major revision

Do not accept (*Reasons below*)

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

Reviewer Name:Lakhdar Guerine

Date:

Detailed Reviewer's Report

This study evaluates the impact of soybean (*Glycine max*) and bean (*Phaseolus vulgaris*) residues on cassava (*Manihot esculenta*) yield in Côte d'Ivoire. Results show that using legumes as preceding crops significantly improves soil fertility and cassava productivity. Bean monoculture achieved the highest yield at 35.26 t/ha, nearly double the control's 18.42 t/ha. Integrating legumes is an effective agronomic strategy for sustainably optimizing yields. This practice supports the diversification of cropping systems for enhanced food security.

Strengths

1. High practical relevance, addressing a critical food security issue and low yields in West Africa.
2. Rigorous methodology using a randomized complete block design with robust statistical analysis (ANOVA, LSD test).

International Journal of Advanced Research

Publisher's Name: Jana Publication and Research LLP

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3. Highly significant results, demonstrating up to a 91% yield increase with bean monoculture compared to the control.
4. Direct applicability for farmers, providing clear and actionable recommendations on legume integration.

Weaknesses

1. Limited geographical scope, as the experiment was conducted at a single site, which may limit the generalizability of the findings.
2. Lack of economic analysis, with no cost-benefit assessment of the proposed practices for smallholder farmers.
3. Short-term focus, with only one cassava cycle evaluated, ignoring potential long-term effects on soil health and productivity.
4. Initial soil fertility was extremely low, which could artificially amplify the positive effects of the legume treatments.

Recommendation:

For publication, the authors could strengthen the manuscript by:

- a) Adding a discussion on the transferability of the results to other regions with different soil or climate conditions.
- b) Explicitly stating the study's limitations in the conclusion.
- c) Comparing their findings more broadly with similar studies in different agro-ecological zones.