

REVIEWER'S REPORT

Manuscript No.: IJAR-54160

Date: 06-10-2025

Title: Effet des apports de gadoue sur la croissance, la biomasse et la production de *prosopis juliflora* dans l' adaptation des conditions climatique de Faranah - Guinée.

Recommendation:

Accept as it is

Accept after minor revision.....

Accept after major revision

Do not accept (*Reasons below*)

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

Reviewer Name: Tahir Ahmad

Reviewer's Comments for Publication

This manuscript presents a well-structured and scientifically sound study that evaluates the effect of increasing doses of *gadoue* (sewage sludge) on the germination, growth, and biomass production of *Prosopis juliflora* under semi-arid conditions in Faranah, Guinea. The topic is highly relevant in the context of sustainable soil restoration, organic waste valorization, and climate change adaptation in arid and semi-arid regions.

The **introduction** effectively establishes the environmental and agricultural challenges in the study area and clearly justifies the choice of *Prosopis juliflora* as a model species. The **literature review** is thorough and cites recent and relevant sources. The **objectives** of the study are well defined and align logically with the experimental design.

The **methodology** is clear, replicable, and scientifically appropriate, employing a randomized complete block design with multiple treatments and replications. The description of treatments, measurement parameters (germination rate, height, diameter, growth rate, number of thorns, vegetative vigor index), and the use of ANOVA with Tukey's test demonstrates methodological rigor.

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The **results and discussion** sections are coherent and well-analyzed. The authors successfully link the observed effects of gadoue with improvements in soil fertility, plant growth, and vigor. The data presentation in tables and figures is clear, and the interpretation is logical and consistent with existing research. However, a few **minor revisions** are recommended to enhance readability and precision:

1. **Language and style:** The manuscript would benefit from minor grammatical and typographical corrections in French (e.g., "climatique" should be plural "climatiques").
2. **Units and consistency:** Ensure uniform notation for measurements (cm, mm, %, etc.).
3. **Discussion depth:** The discussion could be strengthened by highlighting potential environmental risks or limitations of gadoue application (e.g., heavy metals, pathogen load).
4. **Conclusion:** Consider adding a short paragraph emphasizing the broader applicability of these findings to other semi-arid regions.

Overall, the study is **original, methodologically sound, and significant** for advancing sustainable agricultural practices and soil restoration using organic waste materials. After addressing the minor editorial points, the manuscript can be accepted for publication.