

REVIEWER'S REPORT

Manuscript No.: IJAR-55739

Title: Charaterization of Producing-Bioactives Compounds Bacterial Isolates collected from soil at Brazzaville

Recommendation:

Accept after major revision

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

Reviewer Name: Dr. Sudheer Aluru

Detailed Reviewer's Report

This study surveys soil bacteria from Brazzaville for the production of hydrolytic enzymes and biosurfactants. While the topic has local relevance and a substantial amount of data was generated, the manuscript is not acceptable for publication in its current form. It suffers from fundamental flaws in scientific presentation, language, and analysis that preclude meaningful peer review.

In addition, large portions of the manuscript (figures, tables, and text) are not in English, making it unsuitable for an English journal in its current form.

Major Comments

1. The manuscript is not written entirely in English. Numerous figure titles, table headings, axis labels, legends, and even full sentences in the Results section are in French (e.g., “*dénombrement en UFC*,” “*Caractéristiques phénotypiques*,” “*La figure 3 illustre...*”). This alone is sufficient grounds for rejection, as the manuscript is not prepared for an English-language journal.
2. Figures and tables are poorly numbered and inconsistently cited (Table I / Tableau I / Table III / Table VI). Results are presented in a fragmented, site-by-site narrative with embedded figures, preventing clear comparison across soil types. Quantitative data should be consolidated into well-structured summary tables.

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3. Although numerical differences between soils and isolates are repeatedly described as “important” or “significant,” no statistical tests are performed. There is no ANOVA, no variance reporting, and no justification for claims about highest or lowest enzyme producers. Conclusions are therefore descriptive and subjective.
4. The discussion largely repeats the results and cites mostly the authors' own previous work. There is little attempt to explain ecological drivers (e.g., landfill vs. garage soils), functional significance of enzyme production, or broader relevance beyond the local context. Limitations of culture-dependent methods are not addressed.
5. The manuscript claims to identify bacterial *genera* (e.g., *Pseudomonas*, *Bacillus*), but the methods are purely phenotypic (selective media, Gram stain). This is presumptive, not confirmatory. Given that the authors' own previous work (cited) uses molecular methods (16S rRNA), the absence of any sequencing here is a severe limitation that must be explicitly acknowledged and the claims toned down.
6. The results are presented in a chaotic, site-by-site narrative with embedded figures, making comparisons impossible. The four key figures (2-5) showing CFU counts for each site should be consolidated into a single, clear table. Numerous other figures (e.g., colony color/shape charts) are uninterpretable.

Minor Comments

7. The title contains a spelling error (“Charaterization”).
8. The abstract is poorly written and does not clearly summarize key findings.
9. Several figures (phenotypic traits, pie charts) add little scientific value and could be removed or moved to supplementary material.
10. Reference formatting is inconsistent, and some citations are outdated or repetitive.