



**Paper: “In Vitro Evaluation of the Antibacterial and Antioxidant Activities of Extracts from Five Medicinal Plants Traditionally Used to Treat Infections in Burundi”**

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Peer review:

Reviewer 1: Namita Das Saha  
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Reviewer 3: Marié Moussa Diarra  
Université Jean Lorougnon Guédé de Daloa, Côte d'Ivoire

Reviewer 4: Suhad Mathkooor  
College of Agricultural Engineering Sciences, Department of Field Crops, University of Baghdad

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Reviewer A:

Recommendation: Accept Submission

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**The TITLE is clear and it is adequate to the content of the article.**

The title is clear and comprehensive regarding the subject of the article.

**The ABSTRACT clearly presents objectives, methods, results, and conclusions.**

Yes, it's good, and you need to add the type of experimental design used.

**There are a few grammatical errors and spelling mistakes in this article.**

no, it's okay

**The study METHODS are explained clearly.**

The research methodology and working methods were well explained, but references for the quantities of extracts used and for methods of detecting the active compounds in the extracts were not included. Furthermore, the type of experimental design used was not specified.

**The results are clear and do not contain errors.**

yes .it is good

**The CONCLUSION or summary is accurate and supported by the content.**

The conclusion is good but not supported by scientific explanations of the results.

**The list of REFERENCES is comprehensive and appropriate.**

yes .But it needs up-to-date references

*Please rate the TITLE of this paper.*

[Poor] 1-5 [Excellent]

4

*Please rate the ABSTRACT of this paper.*

[Poor] 1-5 [Excellent]

3

*Please rate the LANGUAGE of this paper.*

[Poor] 1-5 [Excellent]

3

*Please rate the METHODS of this paper.*

[Poor] 1-5 [Excellent]

4

*Please rate the RESULTS of this paper.*

[Poor] 1-5 [Excellent]

4

*Please rate the CONCLUSION of this paper.*

[Poor] 1-5 [Excellent]

4

*Please rate the REFERENCES of this paper.*

[Poor] 1-5 [Excellent]

3

**Overall Recommendation!!!**

Accepted, minor revision needed

**Comments and Suggestions to the Author(s):**

References should be provided for the extraction and detection processes of the active compounds, along with an explanation of the equipment used, the design type employed, and any available images related to pest control, as well as recent references.

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Reviewer B:

Recommendation: Accept Submission

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**The TITLE is clear and it is adequate to the content of the article.**

Le titre est conforme au contenu

**The ABSTRACT clearly presents objectives, methods, results, and conclusions.**

Le RÉSUMÉ présente clairement les objectifs. Cependant la méthode d'analyse au laboratoire afin de réaliser un criblage phytochimique et d'évaluer leur toxicité pour ces insectes n'est pas bien détaillé. Les résultats et conclusion sont acceptable

**There are a few grammatical errors and spelling mistakes in this article.**

**The study METHODS are explained clearly.**

Les méthodes d'analyse afin de réaliser un criblage phytochimique et d'évaluer les toxicités pour ces insectes ne sont pas bien expliquées

**The results are clear and do not contain errors.**

Pas de commentaires sur les résultats

**The CONCLUSION or summary is accurate and supported by the content.**

Pas de commentaire pour la conclusion cependant revoir la méthode d'analyse

**The list of REFERENCES is comprehensive and appropriate.**

pas de commentaire

*Please rate the TITLE of this paper.*

[Poor] 1-5 [Excellent]

4

*Please rate the ABSTRACT of this paper.*

[Poor] 1-5 [Excellent]

4

*Please rate the LANGUAGE of this paper.*

[Poor] 1-5 [Excellent]

4

*Please rate the METHODS of this paper.*

[Poor] 1-5 [Excellent]

3

*Please rate the RESULTS of this paper.*

[Poor] 1-5 [Excellent]

4

*Please rate the CONCLUSION of this paper.*

[Poor] 1-5 [Excellent]

4

*Please rate the REFERENCES of this paper.*

[Poor] 1-5 [Excellent]

4

**Overall Recommendation!!!**

Accepted, minor revision needed

**Comments and Suggestions to the Author(s):**

Revoir la méthode d'analyse du criblage phytochimique

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Reviewer C:

Recommendation: Accept Submission

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**The TITLE is clear and it is adequate to the content of the article.**

The TITLE is clear and it is adequate to the content of the article

**The ABSTRACT clearly presents objectives, methods, results, and conclusions.**

The ABSTRACT clearly presents objectives, methods, results, and conclusions

**There are a few grammatical errors and spelling mistakes in this article.**

**The study METHODS are explained clearly.**

The study METHODS are explained clearly

**The results are clear and do not contain errors.**

The results are clear and do not contain errors

**The CONCLUSION or summary is accurate and supported by the content.**

The conclusion is accurate

**The list of REFERENCES is comprehensive and appropriate.**

ok

*Please rate the TITLE of this paper.*

[Poor] 1-5 [Excellent]

4

*Please rate the ABSTRACT of this paper.*

[Poor] 1-5 [Excellent]

5

*Please rate the LANGUAGE of this paper.*

[Poor] 1-5 [Excellent]

4

*Please rate the METHODS of this paper.*

[Poor] 1-5 [Excellent]

4

*Please rate the RESULTS of this paper.*

[Poor] 1-5 [Excellent]

4

*Please rate the CONCLUSION of this paper.*

[Poor] 1-5 [Excellent]

4

*Please rate the REFERENCES of this paper.*

[Poor] 1-5 [Excellent]

4

**Overall Recommendation!!!**

Accepted, no revision needed

**Comments and Suggestions to the Author(s):**

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Reviewer E:

Recommendation: Revisions Required

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**The TITLE is clear and it is adequate to the content of the article.**

No title should be modified

**The ABSTRACT clearly presents objectives, methods, results, and conclusions.**

The abstract is structurally organized but has several weaknesses. It reports mortality results without indicating sample size, variability measures, or confidence intervals for LD<sub>50</sub> values,

which reduces statistical transparency. The conclusion overstates applicability by suggesting the extracts could serve as alternative pest treatments despite the absence of positive controls, field validation, or non-target safety assessment. Additionally, key methodological details and justification for plant selection are not clearly specified, limiting clarity and scientific rigor.

**There are a few grammatical errors and spelling mistakes in this article.**

Yes, there are several grammatical errors and minor spelling/technical writing issues throughout the manuscript. These do not invalidate the study but reduce its professional quality. Examples include:

Line 31: “which reduce crop yields” → should be “which reduces crop yields” (subject–verb agreement).

Lines 89–91: Sentence structure awkward and unclear regarding unsuccessful rearing.

Line 200: “Hexane extracted more metabolites because it is volatile” → grammatically correct but scientifically misleading and poorly phrased.

Inconsistent capitalization of species names in some sections.

Inconsistent unit formatting (mg/ml vs mg/mL).

Occasional spacing and punctuation inconsistencies.

Overall, the manuscript requires professional English editing to correct grammar, improve sentence structure, and ensure consistency in scientific writing style.

**The study METHODS are explained clearly.**

The Methods section is partially described but lacks sufficient clarity and detail for full reproducibility. While the general procedures (extraction, bioassays, phytochemical screening, and LD<sub>50</sub> estimation) are outlined, several critical methodological elements are missing or insufficiently explained. These include unclear replication strategy (e.g., only six insects per treatment, Lines 120–121), absence of randomization details, lack of environmental conditions for field experiments (Lines 89–91), no justification for concentration selection, and limited description of statistical assumptions (Lines 147–149). Additionally, solvent evaporation procedures and extract standardization are not adequately detailed. Therefore, the Methods require substantial clarification and expansion to meet scientific transparency standards.

**The results are clear and do not contain errors.**

The results are generally presented in an organized manner, but they are not entirely clear and contain several issues. Mortality data in Tables (Tables 2, 3, 5, and 6) are reported without standard errors or confidence intervals, making it difficult to assess variability and reliability. LD<sub>50</sub> values are presented without confidence limits, reducing statistical robustness. In Table 4, there appear to be inconsistencies in extraction yield calculations. Additionally, figures lack error bars and detailed legends, which limits interpretability. Therefore, while the results are structured, they require clarification and correction to ensure accuracy and transparency.

**The CONCLUSION or summary is accurate and supported by the content.**

The Conclusion is only partially supported by the data and appears somewhat overstated. While the results demonstrate insecticidal activity of the plant extracts under controlled experimental

conditions, the manuscript concludes that these extracts could serve as alternative pest management treatments. This claim is stronger than the evidence provided, as the study lacks positive control comparison, large-scale field validation, non-target toxicity assessment, formulation stability testing, and economic feasibility analysis. Therefore, the conclusion should be moderated to reflect that the findings indicate potential for further investigation rather than confirmed applicability.

**The list of REFERENCES is comprehensive and appropriate.**

I did not check it but many references are extremely outdated and recent references are missing

***Please rate the TITLE of this paper.***

[Poor] 1-5 [Excellent]

2

***Please rate the ABSTRACT of this paper.***

[Poor] 1-5 [Excellent]

2

***Please rate the LANGUAGE of this paper.***

[Poor] 1-5 [Excellent]

2

***Please rate the METHODS of this paper.***

[Poor] 1-5 [Excellent]

2

***Please rate the RESULTS of this paper.***

[Poor] 1-5 [Excellent]

2

***Please rate the CONCLUSION of this paper.***

[Poor] 1-5 [Excellent]

2

***Please rate the REFERENCES of this paper.***

[Poor] 1-5 [Excellent]

3

**Overall Recommendation!!!**

Return for major revision and resubmission

**Comments and Suggestions to the Author(s):**

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