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REVIEWER'S REPORT

Manuscript No.: IJAR- 58936

Title: Performance de cinq espèces ligneuses utilisées comme haies vives au Nord de la Côte d'Ivoire.

Recommendation:
Accept as it is .....
Accept after Major revision.....
Accept after Minor revision
Do not accept (*Reasons below*)

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

Reviewer Name: ANAPANA GOPAL

Reviewer's Comment for Publication.

General Comments

The manuscript, titled **"Performance de cinq espèces ligneuses utilisées comme haies vives au Nord de la Côte d'Ivoire"**, addresses an important agroforestry issue by evaluating five woody species for live-hedge establishment in northern Côte d'Ivoire. The study considers germination, early growth, survival, fructification, and ethnobotanical uses, making it relevant to sustainable agriculture and rural resource management.

The manuscript has practical value and presents useful comparative observations. However, several methodological details and aspects of statistical analysis require clarification before the results can be considered fully robust.

Content and Originality

The study has a relevant objective and a useful local application. The comparison of **Acacia nilotica, Bauhinia rufescens, Citrus aurantifolia, Ziziphus mauritiana, and Ziziphus mucronata** under direct sowing and nursery conditions provides useful information for selecting species for live hedges.

The inclusion of long-term silvicultural performance and ethnobotanical uses is an additional strength. The reported survival rates are particularly notable, with *Bauhinia rufescens* and *Ziziphus mucronata* showing the highest survival, while *Citrus aurantifolia* showed the greatest mean height at 5.5 years.

However, the manuscript should more clearly explain **the scientific novelty of the study in relation to previous work on live hedges in West Africa**. Much

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of the Discussion compares the findings with earlier studies, but the specific new contribution of this study should be stated explicitly.

Technical Quality

The experimental approach is generally appropriate, but several technical points need attention:

1. **Experimental design and replication should be described more clearly.** The manuscript should specify the number of seeds used per species, number of replicates, number of plants per treatment, and experimental layout for both laboratory and field germination trials.
2. The seed source requires clarification. The manuscript states that seeds originated from Senegal, Burkina Faso, Mali and America, but it is not clear which species came from which origin or whether seed origin was controlled.
3. The **pre-treatment procedures** should be reported quantitatively. For example, the concentration of sulfuric acid, duration of treatment, washing/neutralization procedure, and treatment of other species should be specified.
4. The statistical analysis is insufficiently described. The manuscript states that one-way ANOVA was used to compare plant height at 6 and 19 months, but the factors, degrees of freedom, sample sizes, F-values, and post-hoc comparisons are not reported.
5. The comparison between **direct sowing and nursery-raised plants** would be stronger if variability measures such as standard deviation or standard error and confidence intervals were provided along with means.
6. The germination results in Figure 1 are useful, but the manuscript should provide the underlying sample size and statistical comparison between laboratory and field germination. The differences are particularly large for *Bauhinia rufescens*, *Citrus aurantifolia*, and *Ziziphus mauritiana*.
7. The conclusion that direct sowing provides the "best compromise cost-work-efficiency" is plausible from the discussion, but **a formal economic comparison is not presented**. The authors should either provide cost data or moderate this conclusion.
8. The ethnobotanical component needs more methodological information, including **number of respondents, selection criteria, geographic coverage, questionnaire/interview method, and approach used to analyze the responses**.
9. Some statements regarding medicinal uses are presented quite strongly. Since these are ethnobotanical reports, the wording should distinguish **traditional uses from scientifically demonstrated therapeutic effects**.

Language and Presentation

The manuscript requires substantial linguistic and editorial revision. There are frequent spacing and grammatical problems, for example words joined together

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such as "haie viveinnovantes," "plantesélevées," and "Ziziphusmauritiana." Scientific names should consistently be italicized and formatted correctly.

The English Abstract is understandable but contains several awkward expressions and should be professionally edited.

The figures are informative, particularly Figures 1–3, which clearly show differences in germination and plant height. However, the graphical presentation could be improved by using error bars, indicating sample sizes, and providing statistical significance where applicable. Figures 4–7 provide useful visual evidence of live-hedge establishment and field conditions.

Structure and Organization

The manuscript follows a conventional structure with Introduction, Materials and Methods, Results, Discussion, Conclusion, and References.

The overall organization is acceptable, but the **Results and Discussion could be separated more distinctly**. Some interpretations and explanations are introduced immediately with the presentation of results.

The Materials and Methods section should also be expanded to make the experiment reproducible. In particular, the experimental design, sample sizes, replication, monitoring intervals, environmental conditions, and ethnobotanical survey methodology need greater detail.

The long section discussing medicinal and other uses is informative but could be shortened or reorganized so that the main research findings remain the central focus.

References and Citations

The manuscript contains a substantial number of references relevant to agroforestry, seed germination, live hedges, and ethnobotanical uses. Several references are appropriately used to compare the present results with previous work.

However, the reference list needs careful editorial checking for **consistency of author names, journal titles, volume/issue information, punctuation, page ranges, and formatting**.

The authors should also verify that all references cited in the text are included in the reference list and that all references in the bibliography are cited in the manuscript. Some older reports, theses, and technical documents should be presented in a consistent reference style.

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REVIEWER'S REPORT

Overall Recommendation

The manuscript addresses a practically important topic and provides useful comparative information on five woody species used for live hedges in northern Côte d'Ivoire. The long-term observations on survival, height, and fructification are valuable, while the comparison between direct sowing and nursery-raised plants has clear practical relevance.

Nevertheless, the manuscript requires **Minor revision** before publication. The principal issues concern incomplete methodological information, insufficient statistical reporting, lack of quantitative details for the ethnobotanical survey, unsupported economic conclusions, and substantial language and formatting problems.

Final Decision: Minor Revision

Recommendation: Minor Revision

The manuscript has good potential and contains useful field-based information, but the authors should substantially revise the **Materials and Methods, statistical analysis, presentation of results, ethnobotanical methodology, interpretation of conclusions, language, figures, and references** before it can be considered for publication.