

### Review Form 3

Journal Name:	<a href="#">Annual Research &amp; Review in Biology</a>
Manuscript Number:	Ms_ARRB_123801
Title of the Manuscript:	Effects of seed size on germination, seedling vigour and other seed quality characters of fodder cowpea ( <i>Vigna unguiculata</i> (L) Walp) varieties
Type of the Article	Research

#### **General guidelines for the Peer Review process:**

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound. To know the complete guidelines for the Peer Review process, reviewers are requested to visit this link:

<https://r1-reviewerhub.org/general-editorial-policy/>

#### **Important Policies Regarding Peer Review**

Peer review Comments Approval Policy: <https://r1-reviewerhub.org/peer-review-comments-approval-policy/>

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General comment

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**PART 1: Review Comments**

<b>Compulsory</b> REVISION comments	Reviewer's comment	Author's Feedback <i>(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
<p><b>Please write a few sentences regarding the importance of this manuscript for the scientific community. Why do you like (or dislike) this manuscript? A minimum of 3-4 sentences may be required for this part.</b></p>	<p>This manuscript addresses a significant aspect of seed science by exploring the effects of seed size on germination and seedling vigor in cowpea, a critical fodder crop. The study's premise is valuable, as understanding these effects can inform seed management practices and improve crop production efficiency. However, the manuscript's presentation and data analysis fall short of the standards typically expected in scientific journals. The inconsistencies in data reporting and interpretation undermine the overall quality and impact of the research. Despite its strong premise, these shortcomings detract from its potential contribution to the field.</p>	
<p><b>Is the title of the article suitable? (If not please suggest an alternative title)</b></p>	<p>I do not have any complaints about the title however you can have alternative titles as:                      "Assessing the Influence of Seed Size on Seed Quality and Vigor in Cowpea Varieties"                      "Evaluating the Effects of Seed Size on Seed Quality Traits in Fodder Cowpea (<i>Vigna unguiculata</i> L.)"</p>	
<p><b>Is the abstract of the article comprehensive? Do you suggest the addition (or deletion) of some points in this section? Please write your suggestions here.</b></p>	<p>The abstract of the article provides a summary of the study's key findings but could be improved by better highlighting the study's significance and relevance. Here are some suggestions for enhancing the abstract:</p> <ol style="list-style-type: none"> <li><b>Emphasize the Importance:</b> The abstract should explicitly state why understanding the impact of seed size on germination and seedling vigor is crucial. This could include its implications for improving seed quality and crop yield in cowpea production.</li> <li><b>Clarify Objectives:</b> Clearly outline the main objectives of the study to provide context. For example, mention that the study aims to determine how seed size affects various seed quality parameters.</li> <li><b>Highlight Practical Applications:</b> Add a brief mention of the practical applications of the findings, such as how they can inform seed management practices or influence agricultural strategies for fodder cowpea.</li> <li><b>Summarize Key Findings:</b> Ensure that the abstract succinctly summarizes the most important results and their implications. For instance, clarify the impact of seed size on different parameters like germination percentage and seedling vigor, and how these findings compare across the two cowpea varieties.</li> </ol>	
<p><b>Are subsections and structure of the manuscript appropriate?</b></p>	<p>I do not have any issue with the subsections and structures. However, the manuscript is missing consistency in so many levels including font type and size, figure and table legends and even the indents.</p>	
<p><b>Please write a few sentences regarding the scientific correctness of this manuscript. Why do you think that this manuscript is scientifically robust and technically sound? A minimum of 3-4 sentences may be required for this part.</b></p>	<p>The scientific robustness of this manuscript is questionable due to missing details in several critical sections. The introduction lacks sufficient background on the relevance of seed size in cowpea and its potential impacts, which undermines the context for the study. The materials and methods section does not provide complete information on experimental procedures and statistical analyses, making it difficult to assess the validity and reliability of the results. Additionally, the results and discussion sections lack comprehensive data interpretation and fail to connect findings to broader scientific and practical implications. These gaps compromise the technical soundness of the study and its contributions to the field.</p>	
<p><b>Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.</b></p>	<p>The references cited in the manuscript are notably outdated, with all sources dating before the 2000s. This limits the relevance and currency of the research in the context of recent advancements and current best practices in seed science. To strengthen the manuscript and ensure it reflects the latest developments in the field, I recommend incorporating more recent studies and reviews.</p>	

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<p>Minor REVISION comments</p> <p><b>Is the language/English quality of the article suitable for scholarly communications?</b></p>	<p>The language and English quality of the manuscript are not suitable for scholarly communication in its current form. The manuscript requires substantial revision at multiple levels to meet the standards expected for academic publications. Key areas that need improvement include:</p> <ol style="list-style-type: none"><li>1. <b>Clarity and Precision:</b> The manuscript should be revised to ensure that the language is clear, precise, and free of ambiguities. Technical terms and findings should be described accurately to convey the intended meaning effectively.</li><li>2. <b>Grammar and Syntax:</b> There are grammatical and syntactical errors that need to be corrected. This includes fixing sentence structures, punctuation, and ensuring proper use of academic terminology.</li><li>3. <b>Consistency:</b> The manuscript should be revised for consistency in terminology, formatting, and style. Inconsistencies can confuse readers and detract from the credibility of the research.</li><li>4. <b>Technical and Scientific Accuracy:</b> Ensure that the scientific content is presented accurately and logically. Misleading or incorrect descriptions can undermine the validity of the findings.</li></ol>	
<p><b>Optional/General</b> comments</p>	<p>I appreciate the underlying idea and significance of the study, which explores the impact of seed size on germination and seedling vigor in cowpea. However, the manuscript currently falls short in effectively communicating this idea to the scientific community. The presentation of the research needs significant improvement to ensure clarity and coherence. Specifically, the manuscript should enhance its discussion of the study's relevance, provide a more comprehensive and detailed methodology, and present the results in a more structured and accessible manner. By addressing these issues, the manuscript can better convey its findings and contribute meaningfully to the field.</p> <p><b>The manuscript shows promise with its research idea but requires substantial revisions before it can be considered for publication.</b></p> <p><b>Comments:</b> The manuscript presents an interesting research idea, but it currently falls short in several critical areas. Major revisions are needed, including:</p> <p>Additional Experiments: Conducting further experiments may be necessary to address gaps in data and provide more robust findings.</p> <p>Improved Scientific Rigor: The manuscript should focus more on scientific accuracy and clarity. Ensure that all scientific aspects are thoroughly addressed and discussed.</p> <p>Enhanced Communication: The language and presentation require significant improvement to effectively convey the research findings to the scientific community.</p> <p>Please address these concerns comprehensively before resubmitting. This will enhance the manuscript's quality and ensure it meets the standards required for scholarly publication.</p>	

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**PART 2:**

	<b>Reviewer's comment</b>	<b>Author's comment</b> <i>(if agreed with reviewer, correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
<b>Are there ethical issues in this manuscript?</b>	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

**Reviewer Details:**

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