

**Review Form 3**

Journal Name:	<a href="#">Journal of Experimental Agriculture International</a>
Manuscript Number:	<b>Ms_JEAI_123929</b>
Title of the Manuscript:	<b>Correlation among Yield, Quality and Mechanization amicable traits in Sugarcane Clones</b>
Type of the Article	<b>Original Research Article</b>

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**PART 1: Review Comments**

<b>Compulsory</b> REVISION comments	<b>Reviewer's comment</b>	<b>Author's Feedback</b> <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 provides valuable insights into breeding sugarcane varieties that enhance yield and are suitable for mechanized farming, addressing the labour-intensive nature of sugarcane cultivation. It analyses correlations between yield quality and mechanization-friendly traits, aiding in the development of varieties suited for mechanical harvesting. The study's comprehensive analysis of genotypic and phenotypic traits, along with heritability and genetic advance, offers practical guidance for breeders. The thorough approach is commendable, though a discussion on study limitations could enhance the findings.</p>	
<p><b>Is the title of the article suitable? (If not please suggest an alternative title)</b></p>	<p>The title of the article is generally suitable.</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 is comprehensive in terms of covering the key findings and methodologies used in the study. It provides a clear overview of the experiment, the significant traits analysed, and the main correlations identified between yield and mechanization-friendly traits. However, there are a few areas where it could be improved for clarity and completeness:</p> <ul style="list-style-type: none"> <li>- The abstract should start with a clearer statement of the research objective. For example, it could explicitly mention that the study aims to identify sugarcane genotypes that are both high-yielding and suitable for mechanized harvesting.</li> <li>- While the abstract mentions correlations, it would benefit from a brief statement on the practical implications of these findings, such as how they could influence breeding programs or mechanization practices in sugarcane farming.</li> <li>- The results section in the abstract could be slightly condensed to emphasize the most critical findings, such as the traits that showed the strongest positive correlations with cane yield and those relevant to mechanization.</li> <li>- The conclusion in the abstract could be more assertive about the potential impact of the study's findings on future research or industry practices.</li> </ul>	
<p><b>Are subsections and structure of the manuscript appropriate?</b></p>	<p>The manuscript's structure and subsections appear appropriate, as it follows a typical format for scientific research articles. However, here are a few suggestions that could enhance the manuscript's structure:</p> <ul style="list-style-type: none"> <li>- The introduction is informative but could benefit from a more focused statement of the research problem and objectives. It might help to break down the introduction into smaller paragraphs to improve readability and to clearly outline the research questions or hypotheses.</li> <li>- Materials and Methods section is well-structured and detailed. However, to ensure reproducibility, it may be helpful to include additional details, such as specific environmental conditions during the experiment or the statistical software used for analysis.</li> <li>- In subsections, consider adding subsections within the materials and methods section (e.g., "Experimental Design," "Data Collection," "Statistical Analysis") to make it easier for readers to follow.</li> <li>- Use clear subheadings to organize the results and discussion around specific traits or key findings. This can help guide the reader through complex data more effectively.</li> <li>- The conclusion should succinctly summarize the key findings and their implications, avoiding repetition from earlier sections. It might be useful to include a statement about potential future research directions or practical applications.</li> <li>- Ensure that the references are formatted consistently according to the chosen citation style.</li> <li>- Ensure that all figures and tables are appropriately labeled and placed in the manuscript where they are first referenced. Captions should be informative and fully explain what the figure or table represents.</li> </ul>	
<p><b>Please write a few sentences regarding the scientific correctness of this manuscript. Why do you think that this manuscript is scientifically</b></p>	<p>The manuscript is scientifically robust and technically sound due to its thorough experimental design and comprehensive analysis of key traits influencing sugarcane yield and mechanization suitability. The use of randomized block design with replications ensures reliable and statistically valid results, while</p>	

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<p><b>robust and technically sound? A minimum of 3-4 sentences may be required for this part.</b></p>	<p>the detailed correlation analysis between various phenotypic traits demonstrates a strong understanding of the genetic factors at play. Additionally, the manuscript carefully interprets the genetic parameters, such as heritability and genetic advance, which strengthens the validity of its conclusions regarding breeding strategies. The careful attention to both genotypic and phenotypic variations further underlines the scientific rigor of the study.</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 in the manuscript are generally relevant and cover a range of studies related to sugarcane genetics, yield, and mechanization. However, some of the references are relatively older, and it might be beneficial to include more recent studies to ensure the manuscript reflects the latest advancements in the field. Here are some suggestions:</p> <ul style="list-style-type: none"> <li>- Recent articles from journals like "Field Crops Research" or "Euphytica" might provide updated insights into sugarcane breeding and the latest genetic approaches.</li> <li>- Including recent studies on mechanization in sugarcane cultivation and precision agriculture techniques could provide a more current context for the manuscript's focus on mechanization-friendly traits.</li> <li>- References to recent advancements in genetic tools (e.g., CRISPR, genomic selection) used in sugarcane breeding would add value, especially if the manuscript discusses potential future research directions.</li> </ul>	
<p><u>Minor REVISION</u> 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 article are generally suitable for scholarly communication, but there are some areas that could benefit from minor revisions to improve clarity, readability, and professionalism. Here are a few specific suggestions:</p> <ul style="list-style-type: none"> <li>- Some sentences are lengthy and complex, which can make them difficult to follow. Breaking these into shorter sentences would improve readability.</li> <li>- Ensure consistent use of technical terms throughout the manuscript, and check for any grammatical errors, such as subject-verb agreement and proper tense usage.</li> <li>- Avoid repeating the same information in multiple sections of the manuscript. This can make the text feel redundant and less concise.</li> <li>- Ensure that the tone remains formal and objective throughout the manuscript, avoiding any colloquial expressions or overly casual language.</li> <li>- Use consistent terminology when referring to key concepts or variables to avoid confusion.</li> </ul>	
<p><u>Optional/General</u> comments</p>	<p>Here are a few optional/general comments that could help enhance the overall quality and impact of the manuscript:</p> <ul style="list-style-type: none"> <li>- Consider adding more figures, charts, or diagrams to visually represent key findings or correlations. This could help readers quickly grasp complex relationships and data.</li> <li>- Including a brief section on potential future research directions could be valuable. This might involve exploring the application of new genetic technologies in sugarcane breeding or further investigating the practical implementation of mechanization-friendly traits in large-scale farming.</li> <li>- Discuss how the findings might impact not just the specific field of sugarcane research but also broader agricultural practices or policies. This could involve implications for sustainability, labour efficiency, or economic outcomes in the sugarcane industry.</li> <li>- If possible, seek informal feedback from peers in the field before final submission. They may offer insights or catch issues that were not previously noticed, improving the manuscript further.</li> </ul>	

**PART 2:**

	<p><b>Reviewer's comment</b></p>	<p><b>Author's comment</b> (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)</p>
<p><b>Are there ethical issues in this manuscript?</b></p>	<p><i>(If yes, Kindly please write down the ethical issues here in details)</i></p>	

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