

**Review Form 3**

Journal Name:	<a href="#">Journal of Experimental Agriculture International</a>
Manuscript Number:	Ms_JEAI_125688
Title of the Manuscript:	<b>Productivity and Competitive Ability of Sweet corn (<i>Zea mays L. saccharata</i>) based Vegetable Legume Intercropping System during Rabi under Southern Transition Zone of Karnataka</b>
Type of the Article	<b>Original Research Article</b>

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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 is important to the scientific community as it explores the productivity and competitive ability of intercropping systems involving sweet corn and vegetable legumes, a crucial topic for improving agricultural sustainability. Researchers value the manuscript for its thorough analysis of yield, competitive indices, and economic returns, particularly the significant findings on the intercropping system of sweet corn and field bean, which demonstrates higher land-use efficiency and profitability. Some may critique it for focusing on a limited geographic area or specific crop combinations, which might limit its broader applicability</p>	
<p><b>Is the title of the article suitable? (If not please suggest an alternative title)</b></p>	<p>The current title of the article, "Productivity and Competitive Ability of Sweet Corn (<i>Zea mays</i> L. <i>saccharata</i>) based Vegetable Legume Intercropping System during Rabi under Southern Transition Zone of Karnataka," is informative but quite lengthy. It could be more concise while retaining the key elements.  <b>A more suitable alternative title of the article could be: "Productivity and Competitiveness of Sweet Corn-Legume Intercropping Systems in the Rabi Season of Southern Karnataka"</b></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 generally comprehensive, providing a solid overview of the study, including the objective, experimental design, results, and key findings. However, it could be improved in terms of clarity and emphasis on certain aspects. Here are my suggestions for improvement:</p> <p><b>Additions:</b></p> <ol style="list-style-type: none"> <li><b>Clear Objective:</b> The objective of the study could be stated more clearly and explicitly at the beginning of the abstract. Right now, the study's purpose is implied but not directly stated.  <b>Example Addition:</b> "This study aimed to evaluate the productivity and competitive ability of sweet corn intercropped with various vegetable legumes during the Rabi season in the Southern Transition Zone of Karnataka."</li> <li><b>Brief Methodology:</b> The abstract mentions the experimental design (randomized block) and treatments, but the reader would benefit from a brief mention of key competitive indices and how they were used to evaluate the systems.  <b>Example Addition:</b> "The study measured productivity and competition using key indices such as Sweet Corn Equivalent Yield (SEY), Land Equivalent Ratio (LER), and Monetary Advantage Index (MAI)."</li> <li><b>Impact or Implications:</b> Adding a sentence on the practical implications of these findings could enhance the abstract. For instance, explaining how the results could benefit farmers or influence future cropping practices.  <b>Example Addition:</b> "The findings highlight the potential for intercropping to increase farm income and resource use efficiency, suggesting significant implications for sustainable agricultural practices."</li> </ol> <p><b>Deletions:</b></p> <ol style="list-style-type: none"> <li><b>Excessive Detail on Specific Measurements:</b> The current abstract includes detailed numeric data, such as plant height, yield, and other specifics, which may be too much for an abstract. These can be summarized in broader terms for better readability.  <b>Example Deletion:</b> Instead of listing specific plant heights and yields for different intercropping systems, you could summarize: "Among the intercropping systems, sweet corn + field bean (2:2) demonstrated the highest productivity and profitability."</li> </ol> <p><b>Final Suggestions:</b></p> <ul style="list-style-type: none"> <li>Consider focusing on key findings and broader insights rather than detailed statistics.</li> </ul>	
<p><b>Are subsections and structure of the manuscript appropriate?</b></p>	<p>The structure of the manuscript seems appropriate overall, as it follows a standard scientific research format, including sections like the <b>Abstract, Introduction, Materials and Methods, Results and Discussion, and Conclusion</b>. These sections effectively cover the key aspects of a research study. However, there are a few points where improvements could be made to enhance readability and organization:  <b>Suggestions for the Subsections and Structure:</b></p>	

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	<p><b>1. Introduction:</b></p> <ul style="list-style-type: none"> <li>○ The introduction covers the background and rationale well but could benefit from clearer segmentation. Consider breaking the introduction into smaller paragraphs or subsections that explicitly address: <ul style="list-style-type: none"> <li>▪ The problem or gap in research.</li> <li>▪ The importance of intercropping systems.</li> <li>▪ The specific objectives of the study.</li> </ul> </li> </ul> <p><b>Suggestion:</b> Add a clear objective statement at the end of the introduction section to guide the reader.</p> <p><b>2. Materials and Methods:</b></p> <ul style="list-style-type: none"> <li>○ This section provides detailed information, but it's quite dense. It might be more reader-friendly if broken down into subsections: <ul style="list-style-type: none"> <li>▪ <b>Experimental Design:</b> Detailing the setup, treatments, and design (randomized block, etc.).</li> <li>▪ <b>Soil and Climate Conditions:</b> Information about the field, soil properties, and weather conditions.</li> <li>▪ <b>Data Collection and Analysis:</b> This can include details on the statistical methods (ANOVA, etc.) and competitive indices (SEY, LER, etc.).</li> </ul> </li> </ul> <p><b>Suggestion:</b> Adding subsections would improve clarity and flow, helping readers quickly find specific methodological details.</p> <p><b>3. Results and Discussion:</b></p> <ul style="list-style-type: none"> <li>○ The <b>Results</b> and <b>Discussion</b> are currently combined, which is common but could be made clearer by separating them into two distinct sections: <ul style="list-style-type: none"> <li>▪ <b>Results:</b> Focus on presenting the data without extensive interpretation.</li> <li>▪ <b>Discussion:</b> This would focus on interpreting the results, comparing them with other studies, and highlighting their implications.</li> </ul> </li> </ul> <p><b>Suggestion:</b> Consider separating the two sections to make the interpretation more prominent and easier to follow.</p> <p><b>4. Tables and Figures:</b></p> <ul style="list-style-type: none"> <li>○ The manuscript includes tables with detailed data. Ensure each table and figure is properly referenced and discussed within the text to make it clear how they support the findings.</li> </ul> <p><b>Suggestion:</b> Make sure that tables and figures are clearly tied into the Results and Discussion sections for smoother integration.</p> <p><b>5. Conclusion:</b></p> <ul style="list-style-type: none"> <li>○ The conclusion is concise and provides a summary of the findings, but it could be enhanced by adding a brief mention of future research directions or practical recommendations for farmers.</li> </ul> <p><b>Suggestion:</b> A sentence or two about the potential broader impact of the research, particularly its application to real-world agricultural practices, would strengthen the conclusion.</p> <p><b>Final Thoughts:</b></p> <ul style="list-style-type: none"> <li>• The overall structure is appropriate, but minor adjustments to subsections and clearer separation of the <b>Results</b> and <b>Discussion</b> would enhance readability.</li> <li>• Breaking down dense sections (e.g., <b>Materials and Methods</b>) into more digestible subsections would make the manuscript easier to navigate.</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 robust and technically sound? A minimum of 3-4 sentences may be required for this part.</b></p>	<p>The manuscript appears scientifically robust and technically sound as it follows a well-established experimental design, utilizing a randomized complete block method with appropriate replications, which strengthens the reliability of the results. The study employs multiple competitive indices such as Sweet Corn Equivalent Yield (SEY), Land Equivalent Ratio (LER), and Monetary Advantage Index (MAI), which are widely accepted measures in agricultural research, ensuring comprehensive analysis of intercropping systems. The statistical analysis, including the use of ANOVA, further adds to the scientific rigor by validating the significance of the observed differences. Additionally, the manuscript presents detailed methodology and interprets the results based on previous literature, demonstrating technical soundness and adherence to scientific standards</p>	

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<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>-</p>	<p><b>Yes</b>, the references are sufficient but few recent references of 2024 or 2023, should be added. All the reference should be arranged as per format of journal. May be added the below given reference:</p> <ul style="list-style-type: none"> <li>✓ <b>Kumar A, Sinha SK., Kumar N, Rana L. and Singh AK. (2023) Impact of intercroops and planting methods on yield and nutrient uptake by sugarcane under North West alluvial plains of Bihar. DOI: <a href="https://doi.org/10.21203/rs.3.rs-3763534/v1">https://doi.org/10.21203/rs.3.rs-3763534/v1</a></b></li> <li>✓ Sinha, S.K., Kumar, Ajeet., Kumari, A and Singh. A.K. (2024) The Integrated Effect of Organic Manure, Biofertilizer and Inorganic Fertilizer on Soil Properties, Yield and Quality in Sugarcane Plant-ratoon System under Calcareous Soil of Indo Gangetic Plains of India. Journal of Scientific Research and Reports (JSRR). 30(5): 193-206.<a href="https://doi.org/10.9734/jsrr/2024/v30i51934">https://doi.org/10.9734/jsrr/2024/v30i51934</a>; <a href="https://hal.science/hal-04507744">https://hal.science/hal-04507744</a>.</li> <li>✓ <b>Kumar, A and Choudhary, A. (2016) Constraints to cabbage (<i>Brassica oleracea</i> var. <i>capitata</i> L.) production in peri-urban area of Saharsa district in Bihar. <i>An Asian Journal of Soil Science</i> (An International Refereed Research Journal). <b>11 (2): 297-306.</b> e ISSN No. 0976-7231; ISSN NO. 0973-4775; Sl. No.:117; NAAS Journal ID: A 117; <b>NAAS Score: 3.19.</b> <a href="https://hal.science/hal-04676725">https://hal.science/hal-04676725</a>.</b></li> </ul>	
<p>Minor REVISION comments</p> <p><b>Is the language/English quality of the article suitable for scholarly communications?</b></p>	<p><b>Major Revision is required</b></p> <p>Language of English is not suitable for scholarly communications, up gradation is required</p>	
<p>Optional/General comments</p>		

### **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>	

### **Reviewer Details:**

<p>Name:</p>	<p><b>Ajeet Kumar</b></p>
<p>Department, University &amp; Country</p>	<p><b>Sugarcane Research Institute, Dr. Rajendra Prasad Central Agricultural University, India</b></p>