

## Review Form 1.7

Journal Name:	<b>Journal of Advances in Biology &amp; Biotechnology</b>
Manuscript Number:	<b>Ms_JABB_119207</b>
Title of the Manuscript:	<b>Combining ability studies for grain yield and its component traits in sweet corn ((Zea mays var. saccharata)</b>
Type of the Article	<b>Original Research Article</b>

### **General guideline for Peer Review process:**

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

(<https://journaljabb.com/index.php/JABB/editorial-policy> )

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**PART 1: Review Comments**

	Reviewer's comment	Author's comment (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><b>Compulsory</b> REVISION comments</p> <ol style="list-style-type: none"> <li>1. <b>Is the manuscript important for scientific community?</b> (Please write few sentences on this manuscript)</li> <li>2. <b>Is the title of the article suitable?</b> (If not please suggest an alternative title)</li> <li>3. <b>Is the abstract of the article comprehensive?</b></li> <li>4. <b>Are subsections and structure of the manuscript appropriate?</b></li> <li>5. <b>Do you think the manuscript is scientifically correct?</b></li> <li>6. <b>Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form.</b></li> </ol> <p><u>(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)</u></p>	<ol style="list-style-type: none"> <li>1. The manuscript titled "Combining ability studies for grain yield and its component traits in sweet corn (Zea mays var. saccharata)" is significant for the scientific community, particularly in the fields of plant breeding and agricultural genetics. The study utilizes a comprehensive Line x Tester design to analyze the combining ability for yield and related traits in sweet corn, revealing key insights into the genetic interactions and performance of different parental lines and their hybrids.</li> </ol> <p>The findings, such as the identification of superior general combiners (L6, L12, T1, and T2) and the best-performing hybrid (L3xT1), provide valuable information for breeding programs aiming to improve sweet corn yield and quality. The emphasis on non-additive gene action and the practical recommendations for exploiting hybrid vigor through heterosis breeding are crucial for developing more efficient and productive sweet corn varieties. This research contributes to the understanding of genetic mechanisms underlying important agronomic traits, ultimately aiding in the enhancement of sweet corn cultivation practices and food production.</p> <ol style="list-style-type: none"> <li>2. The title of the article, "Combining ability studies for grain yield and its component traits in sweet corn (Zea mays var. saccharata)," is suitable as it clearly indicates the focus of the research on combining ability and yield traits in sweet corn. However, if a more concise or slightly different emphasis is desired, an alternative title could be:  "Analysis of Combining Ability for Yield and Agronomic Traits in Sweet Corn (Zea mays var. saccharata)"</li> <li>3. The abstract of the article is fairly comprehensive as it covers the main objectives, methods, significant findings, and conclusions of the study.</li> <li>4. The subsections and structure of the manuscript appear to be appropriate for a scientific research article.</li> <li>5. Based on the provided sections of the manuscript, the study appears to be scientifically correct.</li> <li>6. The references listed in the provided excerpt are a mix of both classic and relatively recent sources, which is generally appropriate for a scientific study. The following sources are suggested for study.  □ Zhang, S., et al. (2021). "Advances in sweet corn breeding: An overview of genetic resources, molecular markers, and genomic selection." <i>Theoretical and Applied Genetics</i>.  □ Li, Y., et al. (2020). "Genetic diversity and population structure of sweet corn inbred lines revealed by SSR markers." <i>BMC Genetics</i>.</li> </ol>	

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<b>Minor</b> REVISION comments <b>1. Is language/English quality of the article suitable for scholarly communications?</b>	1. The English language quality of the article is generally suitable for scholarly communications.	
<b>Optional/General</b> comments	The manuscript presents a well-structured and comprehensive study on the combining ability for grain yield and its component traits in sweet corn ( <i>Zea mays</i> var. <i>saccharata</i> ). The research is timely and relevant, addressing critical issues related to genetic improvement and breeding strategies for sweet corn. The findings offer valuable insights into the genetic interactions and performance of different parental lines and their hybrids, which can significantly contribute to enhancing sweet corn yield and quality.	

### **PART 2:**

	<b>Reviewer's comment</b>	<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)
<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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