

**Review Form 3**

Journal Name:	<b>Journal of Advances in Biology &amp; Biotechnology</b>
Manuscript Number:	<b>Ms_JABB_123402</b>
Title of the Manuscript:	<b>Quantitative Analysis of Heterosis and Combining Ability in Maize Hybrids: Significance for Breeding and Genetic Improvement</b>
Type of the Article	

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**PART 1: Review Comments**

<b>Compulsory</b> REVISION comments	Reviewer's comment	<b>Author's Feedback</b> (Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
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.	The study highlights the importance of identifying lines with good general combining ability (GCA) for breeding programs, particularly hybridization. These lines can be used directly as parents for superior hybrids and synthetic varieties, making breeding more efficient. The findings also show that high specific combining ability (SCA) effects can arise from diverse GCA combinations, allowing breeders to include low GCA lines to increase genetic diversity and heterosis. This flexibility enhances crop improvement strategies, contributing to the development of high-yielding, resilient, and nutritionally superior varieties, supporting agricultural sustainability and food security.	
Is the title of the article suitable? (If not please suggest an alternative title)	Yes it is suitable Here is my thought of title "Combining Ability and Heterosis Analysis in Maize: Insights from Line x Tester Hybridization"	
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.	Yes. there should be a slight refinement in the abstract. Those which has to be refined are highlighted in the respective sections of manuscript For ex: Heterosis studies revealed that twelve out of fifty crosses exhibited significant positive heterosis over the mid-parent, five crosses showed significant positive heterosis over the better parent, and one cross exhibited significant positive heterosis over the standard check, DHM117, for kernel yield per plant.	
Are subsections and structure of the manuscript appropriate?	Yes	
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.	The manuscript's systematic methodology, comprehensive analysis, and practical implications collectively contribute to its scientific robustness and technical soundness.	
Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form. -	Yes Try to add some more references for the results.	
<b>Minor</b> REVISION comments  Is the language/English quality of the article suitable for scholarly communications?	Yes	
<b>Optional/General</b> comments		

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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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