

Review Form 3

Journal Name:	Journal of Experimental Agriculture International
Manuscript Number:	Ms_JEAI_128668
Title of the Manuscript:	Gene Action and Combining Ability Effects in Chilli (<i>Capsicum annum</i> L.) Hybrids for Yield and Yield Contributing Traits
Type of the Article	Research Article

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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:

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PART 1: Comments

	Reviewer's comment	Author's Feedback (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. A minimum of 3-4 sentences may be required for this part.	This manuscript provides valuable insights into the combining ability effects and gene action related to yield and yield-contributing traits in chilli (<i>Capsicum annum</i> L.), which is crucial for improving hybrid breeding programs. By identifying key general and specific combiners, it offers a basis for selecting suitable parents to develop high-yielding chilli hybrids. The findings on dominant and additive gene actions are significant for guiding future breeding strategies and optimizing heterosis in chilli cultivars. Additionally, this research contributes to the broader understanding of genetic factors influencing crop improvement, particularly in a commercially important crop like chilli, with potential applications in enhancing both productivity and quality.	
Is the title of the article suitable? (If not please suggest an alternative title)	The title is suitable but can be refined for clarity. An alternative title could be: "Gene Action and Combining Ability Effects on Yield and Yield-Contributing Traits in Chilli (<i>Capsicum annum</i> L.) Hybrids."	
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.	The abstract is generally comprehensive but could be enhanced by incorporating a clearer explanation of the study's objectives, methodology, and key findings. Specifically, it would benefit from: <ol style="list-style-type: none"> 1. A brief mention of the significance of combining ability analysis in chilli breeding for high yield and trait improvement. 2. A clearer statement on the key outcomes, such as the identification of good general and specific combiners. 3. A brief note on the implications of the findings for future hybrid breeding programs. This will provide a more concise overview of the study's goals, methods, results, and practical applications.	

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<p>Is the manuscript scientifically, correct? Please write here.</p>	<p>Based on the provided sections, the manuscript appears scientifically correct, with appropriate references to established methodologies such as line x tester design for combining ability analysis and gene action in chilli breeding. The discussion is consistent with existing literature on gene action (additive and non-additive) and hybrid performance. However, more detailed explanations of the statistical methods and clearer connections between results and their practical applications could further strengthen the scientific rigor of the manuscript.</p>	
<p>Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.</p>	<p>The references provided are sufficient in terms of their relevance to the topic, but a few may be somewhat dated (e.g., from the 2000s). To ensure the manuscript reflects the most up-to-date research, it would be beneficial to include more recent references from the last 3-5 years, especially related to chilli breeding, combining ability analysis, and advancements in hybrid development. Adding recent studies on the genetic basis of yield improvement in chilli, as well as cutting-edge research on heterosis and gene editing in crop breeding, could enhance the manuscript's credibility and relevance to current trends in plant breeding.</p>	
<p>Is the language/English quality of the article suitable for scholarly communications?</p>	<p>The language and English quality of the article are generally suitable for scholarly communication, but there are areas where clarity and conciseness could be improved. Some sentences are repetitive or overly complex, which may hinder readability. Additionally, ensuring proper punctuation, grammar, and smoother transitions between sections could further enhance the manuscript's overall quality for publication. A careful revision to improve sentence structure and reduce redundancy would make the manuscript more accessible and professional for a scholarly audience.</p>	
<p>Optional/General comments</p>	<p>The manuscript provides valuable insights into chilli breeding but could benefit from clearer phrasing, more recent references, detailed statistical methods, and a stronger focus on practical implications and future research directions.</p>	

PART 2:

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

Reviewer Details:

<p>Name:</p>	<p>Monika Jangra</p>
<p>Department, University & Country</p>	<p>Chaudhary Bansi Lal University, India</p>