

Review Form 3

Journal Name:	Journal of Experimental Agriculture International
Manuscript Number:	Ms_JEAI_126703
Title of the Manuscript:	Identification of SSR markers linked to mung bean yellow mosaic virus resistance in blackgram (<i>Vigna mungo</i> (L.) Hepper) using bulked segregant analysis
Type of the Article	Original Research Article

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PART 1: Review Comments

Compulsory REVISION 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)
<p>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.</p>	<p>This manuscript is valuable to the scientific community as it identifies a key marker linked to MYMV resistance in blackgram, a critical crop. Its findings support more efficient breeding for disease resistance, which is vital for improving yields and supporting food security. The practical focus on a sustainable solution for MYMV enhances its relevance and impact.</p>	
<p>Is the title of the article suitable? (If not please suggest an alternative title)</p>	<p>Slight modification needed: "Identification of SSR Markers Linked to Mung Bean Yellow Mosaic Virus Resistance in Blackgram (<i>Vigna mungo</i> (L.) Hepper) Using Bulk Segregant Analysis in F2:3 Population"</p>	
<p>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.</p>	<p>The abstract is comprehensive, but it could benefit from specifying the number of markers validated, mentioning that only 4 out of 50 were polymorphic. Additionally, more detail on the significance of the CEDG008 marker, particularly its potential role in marker-assisted breeding for MYMV resistance, would strengthen the abstract. A brief mention of future applications for the marker in breeding programs would also enhance clarity.</p>	
<p>Are subsections and structure of the manuscript appropriate?</p>	<p>Yes, the subsections and structure of the manuscript are appropriate. The manuscript follows a logical progression, with clearly defined sections: Introduction, Materials and Methods, Results and Discussion, and Conclusion. Each section presents the information in a well-organized manner. However, the authors could improve clarity by providing additional details in certain sections, such as defining the disease scoring scale in the Materials and Methods and adding a comparative table in the Results and Discussion to enhance readability and context.</p>	
<p>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.</p>	<p>The manuscript is scientifically robust and technically sound, as it employs established and reliable methodologies, such as bulk segregant analysis (BSA) and SSR marker validation, to investigate mung bean yellow mosaic virus (MYMV) resistance in black gram. The experimental design is thorough, with clear documentation of field procedures and marker analysis, ensuring reproducibility of the results. The use of SSR markers to identify polymorphisms associated with resistance traits is a well-accepted approach in plant breeding research. Additionally, the study provides valuable insights into genetic resistance, identifying the CEDG008 marker as a potential tool for marker-assisted selection in future breeding programs.</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 in the manuscript appear to be sufficient and relevant to the study. However, to ensure the paper reflects the most current advancements in the field, I would suggest checking if there are any recent studies (within the last 2-3 years) on marker-assisted selection (MAS) for MYMV resistance in black gram or related crops that could be cited. Additionally, including references to similar studies on SSR markers and MYMV resistance in other legume crops, such as mung bean or pigeon pea, could help strengthen the manuscript's context and comparison with broader research trends. If specific studies like Sathees et al. (2019) and Naik et al. (2017) are cited in the manuscript, it would be beneficial to ensure they are the most recent works or if any newer studies have addressed similar themes.</p>	

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<p>Minor REVISION comments</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 some minor areas that need improvement. A few grammatical errors and inconsistencies in terminology could be addressed to enhance clarity. For instance, replacing "utilized" with "used" and "analyzation" with "analysis" would improve the overall flow. Additionally, ensuring consistent use of terms like "mung bean yellow mosaic virus (MYMV)" throughout the manuscript will enhance clarity and prevent any potential confusion. Overall, the manuscript is understandable, but small revisions will help polish the language for better academic communication.</p>	
<p>Optional/General comments</p>	<p>This study offers valuable insights into MYMV resistance in black gram, with the identification of the CEDG008 marker being a key finding for future breeding programs. To improve clarity, the choice of rabi 2020 for the experiments should be better justified, and the rationale for selecting the 4 polymorphic SSR markers should be explained. Including a comparative table with similar studies and improving figure quality would enhance readability. Overall, the manuscript is promising and can be strengthened with these minor revisions.</p> <p>The manuscript requires minor revisions to improve clarity and presentation, such as justifying the choice of experimental conditions, explaining the SSR marker selection rationale, adding a comparative table, and refining figures. Once these minor revisions are addressed, the manuscript would be suitable for publication.</p> <p>Based on the provided details of the manuscript, there do not appear to be any ethical issues. There do not appear to be any competing interest issues in this manuscript based on the provided details. There is no indication of plagiarism in the manuscript based on the details provided. The research appears to be original, and no direct citations or passages have been highlighted as potentially plagiarized.</p>	

PART 2:

	<p>Reviewer's comment</p>	<p>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>
<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>	

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