

### Review Form 3

Journal Name:	<a href="#">International Journal of Plant &amp; Soil Science</a>
Manuscript Number:	Ms_IJPSS_126508
Title of the Manuscript:	“Marker Assisted Selection: A Novel Approach for Crop Improvement”
Type of the Article	Review Article

#### PART 1: Review Comments

Compulsory 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>
<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>	The manuscript titled "Marker Assisted Selection: A Novel Approach for Crop Improvement" holds significant importance for the scientific community as it highlights innovative methodologies that can enhance crop development through genetic advancements. By emphasizing the use of PCR and its mechanisms, the paper effectively demonstrates how molecular techniques can facilitate marker-assisted selection, leading to improved traits in various crops. I appreciate this manuscript for its thorough explanation of the PCR process and its applications, which can inspire future research and development in the field of plant breeding. The clarity in detailing the steps of PCR and its relevance to crop improvement makes this work valuable for both researchers and practitioners aiming to implement these techniques in agricultural practices.	
<b>Is the title of the article suitable? (If not please suggest an alternative title)</b>	The title "Marker Assisted Selection: A Novel Approach for Crop Improvement" is suitable as it clearly conveys the main focus of the manuscript on marker-assisted selection (MAS) as a technique in crop improvement.	
<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>	The abstract of the article is generally comprehensive, outlining the significance and processes of marker-assisted selection (MAS) in crop improvement. However, it could be improved by including background context on traditional breeding challenges and a clear statement of the review's objectives and implications.	
<b>Are subsections and structure of the manuscript appropriate?</b>	Yes	
<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>	This manuscript demonstrates scientific correctness through its clear explanation of marker-assisted selection (MAS) and its application in crop improvement, supported by relevant literature and examples. The detailed description of the PCR process, including the role of Taq polymerase and the stepwise methodology, reflects a solid understanding of molecular techniques. Additionally, the discussion on the advantages and limitations of MAS provides a balanced view, indicating the authors' thorough examination of the topic. Overall, the manuscript is technically sound and contributes valuable insights to the field of plant breeding and biotechnology.	
<b>Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.</b> =	The references cited in the manuscript appear to be generally sufficient and relevant to the topic of marker-assisted selection and its application in crop improvement. However, to enhance the depth and recency of the literature review, it is advisable to include more recent studies published in the last few years.  For example, I recommend adding: Ullah, I., Ali, H., Mahmood, T., Khan, M. N., Haris, M., Shah, H., & Radicetti, E. (2022). Pyramiding of four broad spectrum bacterial blight resistance genes in cross breeds of basmati rice. <i>Plants</i> , 12(1), 46.	

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Minor REVISION comments <b>Is the language/English quality of the article suitable for scholarly communications?</b>	The language and English quality of the article are generally suitable for scholarly communications. The manuscript demonstrates clarity in presenting complex concepts related to marker-assisted selection and PCR processes, making it accessible to a scientific audience.	
<b>Optional/General</b> comments	Please enhance the quality of the images and provide detailed captions for each figure.	

### **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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