

**Review Form 3**

Journal Name:	<a href="#">Journal of Advances in Biology &amp; Biotechnology</a>
Manuscript Number:	Ms_JABB_124443
Title of the Manuscript:	<b>“Marker Assisted Selection In Advanced Backcross Population Of Rice Variety, Mtu1010 For Bacterial Blight And Blast Resistance”</b>
Type of the Article	

### Review Form 3

#### PART 1: Review Comments

<b>Compulsory</b> REVISION comments	<b>Reviewer's comment</b>	<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)
<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>	This manuscript is important for scientific community as it exemplified the successful application of marker-assisted backcross breeding (MABC) to develop bacterial blight and blast-resistant rice varieties. It clarifies how MABC increases the breeding process by making a bridge between the traditional crop improvement methods and novel genetic tools. I found it practical in explaining the possibilities of MABC application in crop improvement for reducing vulnerability and enhancing food security.	
<b>Is the title of the article suitable? (If not please suggest an alternative title)</b>	Yes, the original title, "Marker Assisted Selection in Advanced Backcross Population of Rice Variety MTU1010 for Bacterial Blight and Blast Resistance," is suitable. It effectively conveys the main focus of the study on marker-assisted selection and the specific rice variety being researched.	
<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 is generally comprehensive but could be improved by adding a brief mention of the significance of developing resistant lines against bacterial blight and blast. Additionally, specifying the number of plants screened and highlighting key results would enhance clarity. Including a concluding statement that summarizes the implications of the findings for rice breeding would also be beneficial.	
<b>Are subsections and structure of the manuscript appropriate?</b>	Yes. Subsections and the general structure of the manuscript are proper and logically divide from the introduction to methods, results, and discussion. The definition of each section is clear; hence, the content can be read without difficulty.	
<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>	The manuscript correctly applies marker-assisted breeding techniques with a strict approach supported by most of the literature available. A clear methodology applied to foreground and background selection is performed, demonstrating a robust approach for developing rice lines that have enhanced resistance to bacterial blight and blast, followed by intensive verification of resistance genes with molecular markers to further strengthen the reliability of the results. Overall, the study is technically sound because the author carefully integrates the genetic analysis with practical breeding strategies to provide relevant insights in plant 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 in the manuscript are generally sufficient; however, I recommend adding the following reference for a more comprehensive view of the subject: Ullah, I., et al. (2022). "Pyramiding of four broad spectrum bacterial blight resistance genes in cross breeds of basmati rice." <i>Plants</i> , 12(1), 46. Additionally, I noticed that the formatting of the references is not uniform throughout the manuscript. I suggest formatting them according to the journal's guidelines to ensure consistency and professionalism.	
<b>Minor</b> 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 communication. The manuscript is well-structured and uses appropriate scientific terminology. However, there are some instances of grammatical errors and awkward phrasing that could benefit from careful proofreading. Improving these aspects would enhance the overall clarity and readability of the manuscript.	
<b>Optional/General</b> comments	One suggestion regarding the figures, particularly the gel documentation, is to consider combining some of the images into a single composite figure. This approach could enhance clarity and readability, allowing the reader to compare results more easily. Consolidating figures can help streamline the presentation of data and reduce the number of individual figures, making it more visually accessible while still conveying all necessary information	

**Review Form 3**

**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:**

Name:	<b>Irfan Ullah</b>
Department, University & Country	<b>Hazara University, Pakistan</b>