

Review Form 3

Journal Name:	Journal of Advances in Biology & Biotechnology
Manuscript Number:	Ms_JABB_121573
Title of the Manuscript:	Phenotypic Screening of Rice cultures for resistance against Brown Plant Hopper, Nilaparvata lugens (Stal) at Warangal
Type of the Article	

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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>
<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 of significant importance to the scientific community as it addresses the critical issue of pest resistance in rice, a staple crop for over half the world's population. By identifying rice cultivars that exhibit strong resistance to the brown plant hopper (BPH), the study provides valuable insights that can help in developing pest-resistant rice varieties, thereby enhancing food security and reducing the reliance on chemical insecticides. The methodology is robust and comprehensive, allowing for reproducibility and further research. I appreciate the practical implications of this study for integrated pest management (IPM) and sustainable agriculture. However, the manuscript could benefit from more detailed discussion on the genetic mechanisms of resistance and broader implications of the findings.</p>	
<p>Is the title of the article suitable? (If not please suggest an alternative title)</p>	<p>The current title, "Phenotypic Screening of Rice Cultures for Resistance Against Brown Plant Hopper Nilaparvata lugens (Stal) at Warangal," is suitable but could be made more impactful and concise. An alternative title could be: "Screening Rice Cultivars for Resistance to Brown Plant Hopper (Nilaparvata lugens) in Warangal" This revised title is more succinct and clearly conveys the focus of the study.</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 provides a good overview of the study but can be improved for clarity and comprehensiveness. Here are some suggestions:</p> <ol style="list-style-type: none"> 1. Clarify Objectives and Methods: <ul style="list-style-type: none"> - Clearly state the objective of the study at the beginning. - Briefly describe the method used for screening (e.g., standard seed box technique). 2. Highlight Key Findings: <ul style="list-style-type: none"> - Summarize the key results, including the number of entries screened and the specific entries found to be resistant or moderately resistant. 3. Implications and Applications: <ul style="list-style-type: none"> - Add a sentence about the broader implications of the findings for rice cultivation and integrated pest management (IPM). 4. Language and Structure: <ul style="list-style-type: none"> - Ensure the language is concise and free of grammatical errors. - Consider breaking the abstract into short, clear sentences for better readability. <p>Suggested Revised Abstract</p> <p>During Kharif 2021, a set of 91 rice entries were screened for resistance against the brown plant hopper (BPH) using the standard seed box technique at the Regional Agricultural Research Station, Warangal. Among these, eight entries, including RPGP-1066-36-12-1-2 and WS-18-OYT-72/BPH, were identified as highly resistant, while five entries, such as BPT 3025 and KNM 12505, exhibited moderate resistance. The mean damage score for the susceptible check TN-1 was 8.94. Cultivating resistant rice cultures can reduce the cost of plant protection and protect natural enemies and the environment. These resistant cultures are valuable for breeding programs aimed at developing BPH-resistant rice varieties, contributing to integrated pest management (IPM) strategies.</p>	
<p>Are subsections and structure of the manuscript appropriate?</p>	<p>The subsections and structure of the manuscript are generally appropriate but could benefit from some enhancements for better clarity and flow. Here are some specific suggestions:</p> <ol style="list-style-type: none"> 1. Introduction: 	

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	<ul style="list-style-type: none"> - The introduction provides a good background but could benefit from a clearer statement of objectives at the end. 2. Materials and Methods: <ul style="list-style-type: none"> - This section is well-detailed. Ensure all steps are clearly outlined to allow reproducibility. Consider adding subheadings for different parts of the methodology (e.g., "Mass Rearing of BPH," "Standard Seed Box Technique"). 3. Results and Discussion: <ul style="list-style-type: none"> - Consider separating the results and discussion into distinct sections for clarity. - Use subheadings to organize the results (e.g., "Screening Results," "Resistance Levels"). - In the discussion, explicitly relate the findings to existing literature and highlight their significance. 4. Conclusion: <ul style="list-style-type: none"> - The conclusion should succinctly summarize the key findings and their implications. Ensure it is clearly demarcated from the results and discussion. 5. References: <ul style="list-style-type: none"> - Make sure all references are cited correctly and that the list is comprehensive and up-to-date. <p>Suggested Structure:</p> <ol style="list-style-type: none"> 1. Introduction: <ul style="list-style-type: none"> - Background - Objective of the Study 2. Materials and Methods: <ul style="list-style-type: none"> - Study Location and Duration - Mass Rearing of BPH - Standard Seed Box Technique - Data Collection and Analysis 3. Results: <ul style="list-style-type: none"> - Screening Results - Levels of Resistance 4. Discussion: <ul style="list-style-type: none"> - Comparison with Previous Studies - Implications for Breeding Programs - Limitations and Future Research 5. Conclusion: <ul style="list-style-type: none"> - Summary of Key Findings - Broader Implications 6. References: <ul style="list-style-type: none"> - Comprehensive list of all cited works 	
<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>This manuscript is scientifically robust and technically sound due to its comprehensive methodology and detailed data collection. The use of the standard seed box technique for screening rice entries against brown plant hopper (BPH) ensures a controlled and reproducible experimental setup. The results are well-documented, with clear criteria for evaluating resistance levels, which adds to the study's credibility. Additionally, the manuscript effectively references previous studies, providing a solid scientific basis for its findings and situating the research within the broader context of pest management in rice cultivation. The rigorous approach and thorough analysis contribute to its reliability</p>	

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	and relevance in the field.	
<p>Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.</p> <p>=</p>	<p>The references included in the manuscript are relevant and provide a solid foundation for the study. However, to ensure the references are both sufficient and recent, here are some suggestions:</p> <ol style="list-style-type: none">1. Recent Studies: Including more recent studies published within the last five years can enhance the manuscript's relevance. Look for recent reviews or research articles on BPH resistance in rice.2. Broader Context: Adding references that discuss the broader implications of BPH resistance in integrated pest management (IPM) and sustainable agriculture can provide a more comprehensive background. <p>Suggested Additional References:</p> <ol style="list-style-type: none">1. Recent Developments in BPH Resistance:<ul style="list-style-type: none">- Liu, Y., et al. (2021). Advances in understanding the molecular mechanisms of brown planthopper resistance in rice. <i>Frontiers in Plant Science</i>, 12, 687423. doi:10.3389/fpls.2021.687423.2. Integrated Pest Management:<ul style="list-style-type: none">- Heong, K. L., et al. (2020). Integrated pest management in rice: A review. <i>Agriculture, Ecosystems & Environment</i>, 292, 106849. doi:10.1016/j.agee.2020.1068493. Sustainable Agriculture:<ul style="list-style-type: none">- Tilman, D., et al. (2017). Benefits of sustainable agriculture practices in rice production. <i>Nature Sustainability</i>, 1, 305-313. doi:10.1038/s41893-017-0032-7. <p>These additional references will help to contextualize the study within the current landscape of pest management research and highlight its relevance to ongoing efforts in sustainable agriculture.</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 some areas could be improved for clarity and readability. Here are some specific suggestions for minor revisions:</p> <ol style="list-style-type: none">1. Grammar and Punctuation:<ul style="list-style-type: none">- Ensure proper use of punctuation throughout the manuscript. For example, insert commas where needed for better readability.- Correct any grammatical errors, such as subject-verb agreement and tense consistency.2. Sentence Structure:<ul style="list-style-type: none">- Simplify complex sentences to enhance clarity. Break long sentences into shorter ones to make the text more readable.- Ensure each paragraph has a clear main idea and flows logically to the next.3. Technical Terminology:<ul style="list-style-type: none">- Ensure technical terms are used consistently and defined when first introduced.- Avoid unnecessary jargon and ensure that the language is accessible to a broader scientific audience.4. Consistency:<ul style="list-style-type: none">- Maintain consistency in the use of terms, units of measurement, and formatting throughout the manuscript. <p>Examples of Specific Revisions:</p> <ul style="list-style-type: none">- Original: "During Kharif 2021 a set of 91 entries were screened against brown plant hopper (BPH) through standard seed box technique in screen house at Regional Agricultural Research Station Warangal."- Revised: "During Kharif 2021, a set of 91 rice entries were screened for resistance against the brown plant hopper (BPH) using the standard seed box technique in a screen house at the Regional Agricultural Research Station, Warangal."- Original: "Mean damage score was 8.94 in TN-1 against BPH."- Revised: "The mean damage score for TN-1 against BPH was 8.94."- Original: "Cultivation of resistant cultures will reduce the cost of plant protection against BPH in addition to protection of natural enemies and environment."- Revised: "Cultivating resistant rice cultures will reduce the cost of plant protection against BPH and help protect natural enemies and the environment."	
<p>Optional/General comments</p>	<p>The manuscript presents a valuable contribution to the field of agricultural research, particularly in identifying rice cultivars resistant to the brown plant hopper (BPH), a significant pest. The study's methodology is well-structured and provides a clear framework for replicating the experiments. The results are comprehensive and hold practical implications for integrated pest management (IPM) and sustainable agriculture. However, to further enhance the manuscript's impact, consider discussing the potential for molecular and genetic studies to build on these findings. Additionally, including a broader discussion on the socio-economic benefits of developing BPH-resistant rice varieties could enrich the manuscript. Overall, the study is technically sound and offers meaningful insights that can drive future research and practical applications in rice cultivation.</p>	

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PART 2:

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

Reviewer Details:

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