

Review Form 3

Journal Name:	International Journal of Plant & Soil Science
Manuscript Number:	Ms_IJPSS_124086
Title of the Manuscript:	The Impact of Nano-Fertilizers on Growth-attributing characteristics in Transplanted Hybrid Rice (<i>Oryza sativa</i> L.)
Type of the Article	Research

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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 holds significant importance for the scientific community, especially for researchers and practitioners focused on sustainable agriculture. Nano-fertilizers have emerged as a cutting-edge solution to improve crop efficiency and reduce environmental impact. By investigating their effects on key growth characteristics in hybrid rice, this research offers valuable insights into optimizing fertilizer use. I appreciate the manuscript for its practical relevance and the robust design of the study, including multiple treatments and replications, which enhances the reliability of the results. However, a more detailed analysis of the long-term effects on soil health and environmental sustainability would further enrich the findings.</p>	
<p>Is the title of the article suitable? (If not please suggest an alternative title)</p>	<p>The current title, "<i>The Impact of Nano-Fertilizers on Growth-attributing Characteristics in Transplanted Hybrid Rice (Oryza sativa L.)</i>," is clear but could be more concise and impactful. A slightly revised title might better reflect the key focus of the research.</p> <p>Suggested alternative title: "Enhancing Growth and Yield in Hybrid Rice Using Nano-Fertilizers: A Study on Transplanted Kharif Rice"</p> <p>This version is more streamlined while still capturing the essence of the study, emphasizing the practical benefits of nano-fertilizers on rice cultivation.</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 experiment, including the design, treatments, and key findings. However, there are some areas where it could be improved for clarity and completeness:</p> <p>Suggestions:</p> <ol style="list-style-type: none"> 1. Objectives: The abstract mentions the study's purpose briefly, but it could be more explicit about the research question or hypothesis. <ul style="list-style-type: none"> o Suggested addition: "This study aimed to evaluate the impact of nano-fertilizers on key growth characteristics and grain yield in hybrid rice." 2. Results: While the results are mentioned, they focus on higher growth attributes and yield without specifying numerical or percentage improvements. Including specific data would strengthen the abstract. <ul style="list-style-type: none"> o Suggested addition: "Application of 100% RDN + Nano Urea + Nano Zinc resulted in X% increase in plant height, Y% more tillers, and Z% higher grain yield compared to the control." 3. Implications: The abstract could briefly address the broader implications of these findings for sustainable agriculture or fertilizer efficiency. <ul style="list-style-type: none"> o Suggested addition: "These findings suggest that nano-fertilizers can enhance nutrient use efficiency, potentially reducing environmental impact while improving productivity." 	
<p>Are subsections and structure of the manuscript appropriate?</p>	<p>The structure and subsections of your manuscript appear to be well-organized and follow a logical progression for an agronomic research paper.</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 demonstrates scientific robustness and technical soundness due to its well-structured experimental design, use of randomized block design with replicates, and inclusion of multiple treatment comparisons. The inclusion of data from two consecutive seasons increases the reliability of the findings, while precise statistical analyses validate the significant differences observed across treatments. Furthermore, the study's focus on nano-fertilizers, a cutting-edge technology in agriculture,</p>	

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	aligns with recent advances in sustainable crop management, providing relevant and timely contributions to the field. The methodology follows standard agronomic practices, ensuring repeatability and accuracy.	
<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 cited in the manuscript are generally relevant to the topic of nano fertilizers and their application in agriculture, particularly focusing on rice and other crops. However, the inclusion of some older sources (e.g., Maclean et al., 2002) may not provide the most up-to-date information for a rapidly evolving field like nanotechnology in agriculture. While recent studies from 2020–2024 are present, there may be scope to include more cutting-edge research to further strengthen the manuscript.</p> <p>Suggestions for additional references could include:</p> <ul style="list-style-type: none"> • Studies focusing on more recent advances in nanotechnology applications in sustainable agriculture. • Meta-analyses or reviews that summarize the effectiveness of nano fertilizers across different agroecological zones. <p>Overall, the references are mostly adequate, but adding more recent and diverse sources would improve the robustness of the literature review.</p> <p>Few references are from the predatory journal which should be avoided.</p>	
<p><u>Minor</u> 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 is generally suitable for scholarly communication, but it could benefit from some refinement. The scientific terminology is appropriate, and the key concepts are clearly conveyed. However, there are minor grammatical issues, awkward phrasing, and inconsistent sentence structures in some sections that could be improved for better readability and flow. For example, sentences like "Experiment was conducted during Kharif season" should be rephrased to "The experiment was conducted during the Kharif season." Polishing these areas will enhance the overall clarity and professionalism of the manuscript.</p>	
<p><u>Optional/General</u> comments</p>		

PART 2:

	Reviewer's comment	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>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:

Name:	Sameena Begum
Department, University & Country	Professor Jayashankar Telangana State Agricultural University, India