

### Review Form 3

Journal Name:	<b>International Journal of Environment and Climate Change</b>
Manuscript Number:	<b>Ms_IJECC_121063</b>
Title of the Manuscript:	<b>Effect of temperature rise on crop growth and productivity</b>
Type of the Article	

#### **General guidelines for the Peer Review process:**

This journal's peer review policy states that **NO** manuscript should be rejected only on the basis of '**lack of Novelty**', provided the manuscript is scientifically robust and technically sound. To know the complete guidelines for the Peer Review process, reviewers are requested to visit this link:

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#### **Important Policies Regarding Peer Review**

Peer review Comments Approval Policy: <https://r1.reviewerhub.org/peer-review-comments-approval-policy/>

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#### **PART 1: Review Comments**

<b><u>Compulsory</u></b> REVISION comments	<b>Reviewer's comment</b>	<b>Author's Feedback</b> <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 "Effects of temperature rise on crop growth and productivity" discusses physiological processes impacted by temperature changes in different crops. Particularly, the manuscript brings to light how an increase in temperature interferes with plant adaptation mechanisms. Considering that global temperatures are projected to continue rising, this manuscript provides vital information for the scientific community to think about novel approaches to improve crop adaptation mechanisms.	
<b>Is the title of the article suitable? (If not please suggest an alternative title)</b>	Yes, however, the title sounds too general, while the content focuses specifically on the rice crop. I suggest the author choose to either focus on the specific crop or general crop production, ensuring the content reflects the title theme. Consider using a title like "Effect of Temperature Rise on Rice Growth and Productivity" or "Effect of Temperature Rise on Crop Growth and Productivity."	

**Review Form 3**

<p><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></p>	<p>The abstract is comprehensive, but a few adjustments could enhance clarity and ensure all key points are effectively communicated.</p> <p><b>Clarity and Flow:</b></p> <ul style="list-style-type: none"> <li>• Ensure smooth transitions between sentences to enhance readability.</li> <li>• Specify the context of the study, mentioning rice as the primary crop if that's the focus.</li> </ul> <p><b>Detail and Specificity:</b></p> <ul style="list-style-type: none"> <li>• Remove redundant phrases to make the abstract more concise.</li> </ul> <p>Eg. It is crucial to adopt advanced agricultural practices worldwide to mitigate the impact of rising global temperatures." - This could be simplified to "Adopting advanced agricultural practices is crucial to mitigate rising global temperatures."</p>	
<p><b>Are subsections and structure of the manuscript appropriate?</b></p>	<p><b>The manuscript subsections are not very precise.</b></p> <p><b>Flow and Structure:</b></p> <ul style="list-style-type: none"> <li>• Ensure a logical flow from the problem (temperature rise and its impact) to current solutions (molecular techniques and advanced practices), to the future outlook (importance of adopting these methods).</li> <li>• Ensure a smooth transition between sections and maintain a coherent narrative throughout the manuscript.</li> </ul> <p><b>Detail and Relevance:</b></p> <ul style="list-style-type: none"> <li>• Make sure each subsection is relevant and detailed, providing necessary information for understanding</li> </ul> <p><b>Figured description</b></p> <p>The figure titles are not aligned with the content eg.</p> <ul style="list-style-type: none"> <li>• Fig 1 is titled "Effect of high temperature on plant Photosynthesis and growth" but the content in the figure only describes the difference between C4 and C3 photosynthesis pathways and doesn't illustrate any relationship with high temperature</li> <li>• Fig 2 is titled "Effect of high temperature on plant metabolism": But the figure shows the general abiotic stress effect on crop growth</li> <li>• Fig 3 is titled "Effect of temperature on plant growth and development in rice crop" but the content only mentions the processes affected without a description of the magnitude or direction (increasing or decreasing)</li> </ul>	<ul style="list-style-type: none"> <li>•</li> </ul>
<p><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></p>	<p>The manuscript lacks robustness as sentences are not well developed. E.g., the authors state that "Heat stress causes an alteration in mitochondrial function," but do not elaborate on how is the mitochondrial function altered; is it sped up or slowed? Terms (e.g., ROS) are not defined before use coupled with a lack of consistency (e.g., using CO<sub>2</sub> and CO2 interchangeably – they do not mean the same thing). Additionally, the figures lack context as they are not referenced in the text. and the flow of information is not logical and insufficient. Be consistent in usage of the term.</p>	<p>..</p>
<p><b>Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.</b></p>	<p>No. The authors did not provide adequate references. For instance, the statement "Air temperatures above 30 °C reduce photosynthesis in plants" was not well developed and lacks reference(s).</p> <p><b>However, the flow of information is not coincidental and logical and insufficient</b></p>	
<p><u>Minor</u> REVISION comments</p> <p><b>Is the language/English quality of the article suitable for scholarly communications?</b></p>	<p>The language and English quality of the article are generally appropriate for scholarly communications, but there are areas where improvements could enhance clarity and precision. Eg. Check for consistent formatting and terminology throughout the manuscript, to avoid confusion. For instance, ensure that terms like "heat stress," "high temperature," and "temperature rise" are used consistently.</p>	
<p><u>Optional/General</u> comments</p>	<p>Although the manuscripts communicate matters of importance to the scientific community and the public, the writing is not well developed. Sentences within paragraphs are disjointed and incoherent. A lot of improvement in coherence and overall writing quality needs to be made prior to publication.</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><b>Are there ethical issues in this manuscript?</b></p>	<p><i>(If yes, Kindly please write down the ethical issues here in details)</i></p>	

**Reviewer Details:**

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