

Review Form 1.7

Journal Name:	International Journal of Environment and Climate Change
Manuscript Number:	Ms_IJECC_111925
Title of the Manuscript:	Physiological insights of Melatonin Hormone for alleviation of drought stress in rice
Type of the Article	

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PART 1: Review Comments

	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>Compulsory REVISION comments</p> <ol style="list-style-type: none"> 1. Is the manuscript important for scientific community? (Please write few sentences on this manuscript) 2. Is the title of the article suitable? (If not please suggest an alternative title) 3. Is the abstract of the article comprehensive? 4. Are subsections and structure of the manuscript appropriate? 5. Do you think the manuscript is scientifically correct? 6. Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form. <p><u>(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)</u></p>		
<p>Minor REVISION comments</p> <ol style="list-style-type: none"> 1. Is language/English quality of the article suitable for scholarly communications? 		
<p>Optional/General comments</p>	<p>Clarity in the experiment description: The text provides a clear description of the procedures and methods used in the experiment. The selected rice varieties, the use of PEG to induce water and osmotic stress, and the preparation of PEG solutions are detailed.</p> <p>Use of standard methods: Standard and recognized methods are employed for seed sterilization, PEG solution preparation, and bibliographic references are provided to support the use of PEG-6000 in inducing water deficit.</p> <p>Appropriate experimental control: Controls in the experiment, such as the use of distilled water instead of PEG in the control and the addition of fungicide to control fungal growth, demonstrate an attempt to minimize unwanted variables.</p> <p>Well-structured experimental design: It is mentioned that the experiment was conducted with a completely randomized block design, which is a sound practice in experimental research.</p> <p>Utilization of statistics: It is mentioned that statistical analysis was conducted using the SPSS 16.0 package, which is positive as it indicates a rigorous approach in interpreting the results.</p> <p>Weaknesses of the text:</p> <p>Lack of information on some variables: Although the measurement of the number of germinated seeds, root length, and shoot length after 14 days is mentioned, no information is provided on other possible variables that could influence the results, such as laboratory environmental conditions.</p> <p>Absence of information on previous results: No mention is made of previous results or studies</p>	

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	<p>supporting the choice of specific concentrations of PEG or melatonin, which could weaken the scientific justification for these decisions.</p> <p>Equation for water potential: An equation is presented to calculate water potential, but no information is provided on the validity or reliability of this equation. It is crucial to support any formula or equation used with information on its validity and origin.</p> <p>Insufficient details on the germination test: Although it is mentioned that the seeds underwent a germination test, specific details about the exact conditions of the test are not provided, which is essential for the reproducibility of the experiment.</p> <p>Lack of information on the duration of the experiment: The total duration of the experiment is not specified, which is important for a comprehensive understanding of the research's temporal framework.</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>	

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