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Book Name:	Current Research Progress in Agricultural Sciences
Manuscript Number:	Ms_BPR_4029
Title of the Manuscript:	Impact of Drought Stress during Germination on Antioxidant Capacities and Antioxidant Enzymes Activities of Madura Local Maize (Zea mays) Seeds
Type of the Article	Book Chapter

PART 1: 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>
Please write a few sentences regarding the importance of this manuscript for the scientific community. A minimum of 3-4 sentences may be required for this part.	This manuscript provides valuable insights into the physiological and biochemical responses of Madura local maize (Zea mays) seeds to drought stress during germination, a critical stage for plant establishment. By evaluating antioxidant capacities and antioxidant enzyme activities, the study highlights the mechanisms underlying stress tolerance in this locally adapted maize variety. Understanding these adaptive responses is crucial for developing strategies to enhance crop resilience to drought, an increasingly prevalent challenge due to climate change. The findings also contribute to the broader scientific discourse on crop improvement and food security in drought-prone regions.	
Is the title of the article suitable? (If not please suggest an alternative title)	The current title, "Impact of Drought Stress during Germination on Antioxidant Capacities and Antioxidant Enzymes Activities of Madura Local Maize (Zea mays) Seeds," is informative and adequately conveys the study's main focus. However, it could be made more concise and engaging while maintaining clarity. Here's a suggested alternative: "Drought Stress Effects on Antioxidant Responses in Germinating Madura Local Maize (Zea mays) Seeds"	

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<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's objectives, methodology, key findings, and implications. However, it can be refined for clarity, conciseness, and better logical flow. Here are specific suggestions: Suggested Improvements:</p> <ol style="list-style-type: none"> 1. Clarity and Flow: <ul style="list-style-type: none"> ○ Reorganize the content to clearly follow the background, objective, methods, key findings, and conclusion. ○ Provide a concise opening sentence on the importance of studying drought stress during maize germination. 2. Details on Methodology: <ul style="list-style-type: none"> ○ Specify how gene expression was analyzed, if space allows, to provide a more comprehensive picture of the methods. 3. Key Findings: <ul style="list-style-type: none"> ○ Quantify the results consistently (e.g., explicitly state the fold increase in antioxidant enzyme activities like CAT and APX for easier comparison with control). ○ Clarify how the observed changes contribute to drought stress tolerance in a broader context. 4. Conclusions: <ul style="list-style-type: none"> ○ Highlight practical implications or potential applications, such as improving drought resilience in crops. 5. Language and Grammar: <ul style="list-style-type: none"> ○ Fix grammatical issues such as "to induced drought stress" (should be "to induce drought stress") and "as well as it gene expression" (should be "as well as its gene expression"). 	
<p>Is the manuscript scientifically, correct? Please write here.</p>	<p>Strengths:</p> <ol style="list-style-type: none"> 1. Importance of the Topic: <ul style="list-style-type: none"> ○ The introduction correctly identifies drought stress as a major factor affecting plant growth and productivity. ○ It highlights the importance of the antioxidant defense system in mitigating the effects of drought-induced ROS. 2. Relevant Background: <ul style="list-style-type: none"> ○ The section provides a good overview of how ROS is generated and the role of enzymatic and non-enzymatic antioxidants in defense mechanisms. ○ It situates maize as a critical crop globally and introduces Madura maize as a locally adapted variety with potential resilience to harsh conditions. 3. Research Gap: <ul style="list-style-type: none"> ○ It effectively outlines the lack of specific studies on Madura maize and the need to understand its antioxidant response during germination under drought stress. <hr/> <p>Areas for Improvement:</p> <ol style="list-style-type: none"> 1. Clarity of Statements: <ul style="list-style-type: none"> ○ Some sentences are unclear or grammatically incorrect. For example: <ul style="list-style-type: none"> ▪ "The plant that growth under drought stress can have an adverse effect on physiological, biochemical, and morphological." (Should be: "Plants growing under drought stress experience adverse physiological, biochemical, and morphological effects.") ▪ "The stresses can reduce the percentage of germination and delays the inception of seed germination." (Should be: "Drought stress can reduce the germination rate and delay the onset of seed germination.") 2. Logical Flow: <ul style="list-style-type: none"> ○ The flow between ideas is sometimes abrupt. For example: <ul style="list-style-type: none"> ▪ The mention of maize sensitivity to salinity could be removed or integrated better, as salinity stress is not the primary focus of this study. 3. Specificity: 	

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	<ul style="list-style-type: none"> ○ The introduction references "related research" without citing specific studies or providing details about their findings. For instance: <ul style="list-style-type: none"> ▪ "Various related research indicates that the capacities and activities of antioxidant enzymes are correlated with plant resistance to abiotic stress..." (Provide an example of a relevant study here.) <p>4. Scientific Accuracy:</p> <ul style="list-style-type: none"> ○ The explanation of ROS formation and antioxidant functions is broadly correct, but it lacks specificity and precision in some areas. For example: <ul style="list-style-type: none"> ▪ Clarify how ROS (e.g., superoxide and hydrogen peroxide) are typically managed by plant cells under drought conditions. 	
<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>To determine if the references are sufficient and recent, the following points must be evaluated:</p> <p>1. Relevance and Coverage:</p> <ul style="list-style-type: none"> • The references cited appear to cover key areas such as drought stress, reactive oxygen species (ROS), antioxidant mechanisms, and maize growth under abiotic stress. • Ensure that the references address both the physiological and molecular aspects of drought tolerance, as well as studies specific to maize germination. <p>2. Recency:</p> <ul style="list-style-type: none"> • Many of the citations do not have publication years explicitly listed in the text provided. References should ideally include recent studies (within the past 5–10 years) to reflect the current state of research. <p>3. Specific Studies:</p> <ul style="list-style-type: none"> • While some general citations are included (e.g., regarding ROS and antioxidant enzymes), there is a lack of specific studies on Madura maize or closely related varieties. This gap can be addressed by including studies on drought tolerance in locally adapted maize varieties or other similar crops. 	

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<p>Is the language/English quality of the article suitable for scholarly communications?</p>	<p>The language quality of the article, as presented, needs improvement to meet the standards of scholarly communication. While the scientific content is clear, issues with grammar, sentence structure, and word choice may affect the readability and professionalism of the manuscript. Below are specific observations and suggestions:</p> <hr/> <p>Strengths:</p> <ol style="list-style-type: none"> 1. The manuscript demonstrates a good understanding of the topic and uses technical terms appropriately. 2. The scientific content is conveyed with clarity, despite some language issues. <hr/> <p>Areas for Improvement:</p> <ol style="list-style-type: none"> 1. Grammar and Syntax: <ul style="list-style-type: none"> o Example Issue: "The plant that growth under drought stress can have an adverse effect on physiological, biochemical, and morphological." o Suggested Revision: "Plants growing under drought stress experience adverse physiological, biochemical, and morphological effects." o Sentences are often fragmented or incomplete, and verbs are sometimes misused (e.g., "delays the inception" should be "delays the onset"). 2. Word Choice: <ul style="list-style-type: none"> o Some phrases are redundant or unclear. For example: <ul style="list-style-type: none"> ▪ "The stresses can reduce the percentage of germination and delays the inception of seed germination." ▪ Revise for conciseness: "Drought stress can reduce germination rates and delay seed germination." o Use precise terms (e.g., "dissolved H₂O₂" should be "breaks down H₂O₂"). 3. Logical Flow: <ul style="list-style-type: none"> o Sentences are sometimes disconnected, making the text less coherent. For instance: <ul style="list-style-type: none"> ▪ The introduction shifts between ROS and antioxidant mechanisms without clear transitions. o Use linking words (e.g., "Additionally," "Furthermore") to improve flow. 4. Scholarly Tone: <ul style="list-style-type: none"> o Some parts use conversational or non-academic phrasing, such as "on the side." Replace these with formal expressions like "Moreover" or "Additionally." 5. Punctuation: <ul style="list-style-type: none"> o Issues with punctuation (e.g., missing commas in complex sentences) make some sections harder to read. 	
<p>Optional/Generalcomments</p>		

PART 2:

	<p>Reviewer's comment</p>	<p>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></p>
<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:

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