

Review Form 1.7

Journal Name:	Journal of Experimental Agriculture International
Manuscript Number:	Ms_JEAI_116018
Title of the Manuscript:	Studies on response of ber (Ziziphus mauritiana L.) cv. Umran to fertilizers, micronutrients and bioregulators on flowering and fruit growth & developments attributes.
Type of the Article	Original Research 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>	<ol style="list-style-type: none"> 1. The manuscript has the potential to be important for the scientific community, especially for researchers and growers interested in ber (<i>Ziziphus mauritiana</i> L.) cv. Umran cultivation. Here's why: <ol style="list-style-type: none"> a. Addresses a specific knowledge gap: Understanding how fertilizers, micronutrients, and bioregulators influence flowering and fruit development is crucial for optimizing ber production. b. Provides new data: The study investigates various combinations of these regulators, potentially offering new insights compared to existing research. c. Economic Benefits: Improving the efficiency of inputs like fertilizers and bioregulators can reduce costs and increase the economic returns for farmers. Since ber is known as the "poor man's apple" in some regions, enhancing its cultivation can have direct socio-economic benefits. 2. The title "Studies on response of ber (<i>Ziziphus mauritiana</i> L.) cv. Umran to fertilizers, micronutrients and bioregulators on flowering and fruit growth & developments attributes" has some strengths and weaknesses: <ol style="list-style-type: none"> a. Strengths: <ul style="list-style-type: none"> • Accurate: It clearly reflects the content of the research. • Informative: It mentions the plant species, cultivar, and the factors investigated. b. Weaknesses: <ul style="list-style-type: none"> • Lengthy: Long titles can be cumbersome to read and navigate in databases. • Technical jargon: Terms like "cv. Umran" and "developments attributes" might not be readily understandable to a general audience. c. Here are some suggestions for improvement: <ul style="list-style-type: none"> • Shorten and simplify: Aim for a concise title that captures the essence of the research. • Focus on keywords: Include relevant keywords like "ber," "flowering," "fruit development," and "fertilizers" to improve searchability. d. Here's an example of a revised title: Optimization of Flowering and Fruit Development in Ber (<i>Ziziphus mauritiana</i> L.) cv. Umran using Fertilizers, Micronutrients, and Bioregulators. <p>This revised title is shorter, clearer, and uses keywords that researchers interested in this field are likely to search for.</p> 3. The abstract of the article provides essential details about the research, including the experimental setup, key findings, and the significance of specific treatments. However, it could be improved to enhance clarity and comprehensiveness. Here are specific recommendations for improvement: <ol style="list-style-type: none"> a. Clarify and Streamline the Introduction: The abstract opens with a somewhat repetitive title and description. It would benefit from a concise statement that quickly establishes the research's purpose. For example: "This study examines the impact of various fertilizers, micronutrients, and bioregulators on the flowering and fruit development of ber (<i>Ziziphus mauritiana</i> L.) cv. Umran." b. Expand on the Background and Rationale: Briefly include the rationale or background that highlights the importance of the study. This could involve mentioning the economic or ecological significance of ber cultivation improvements. "Ber is a crucial fruit crop in arid regions, and enhancing its yield and quality through agricultural inputs is vital for sustainable cultivation practices." c. Methodology Details: While the methodology is mentioned, it lacks detail about why certain treatments were chosen or their relevance. A brief mention of the experimental rationale 	

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	<p>would be beneficial. "Twelve treatment combinations were tested under a randomized complete block design to identify optimal conditions for early flowering and fruit development."</p> <p>d. Specific Results: The results are noted but should briefly highlight statistical significance or comparative performance where relevant. "Treatment T4 significantly advanced flower bud initiation and flowering times, while T11 was superior for enhancing fruit growth metrics such as length, diameter, and weight."</p> <p>e. Implications and Conclusions: The abstract should close with a concise statement of the conclusions and their broader implications, which are currently lacking. "The findings suggest that specific combinations of fertilizers and bioregulators can significantly enhance ber fruit cultivation, potentially improving agricultural practices in arid climates."</p> <p>f. Remove Redundancies: Avoid repeating phrases like the title and the term "attributes" unnecessarily to streamline the content.</p> <p>g. Keywords: Consider adding a line for keywords to aid in searchability and indexing.</p> <p>h. Formatting issues: There are minor formatting inconsistencies (e.g., "Abstact" vs. "Abstract").</p> <p>4. The manuscript appears to have the overall structure of a research paper (Introduction, Methods, Results and Discussion). However, several recommendations have been made for this improvement.</p> <p>a. Introduction:</p> <ul style="list-style-type: none">• Strength: This introduction provides background information on ber cv. Umran, and the importance of flowering and fruit development. It mentions the roles of fertilizers, micronutrients, and bioregulators.• Recommendation: While it is mentioned that these substances affect yield and quality, it could be strengthened by detailing the specific expected effects (e.g., how fertilizers might affect bud formation or how micronutrients might impact fruit size). <p>b. Materials and Methods:</p> <ul style="list-style-type: none">• Strength: The experimental design (random block design with replication), type of fertilizers used (RDF), and some bioregulators (GA3 and NAA) were applied.• Weakness: Important details regarding the specific concentrations of fertilizers, micronutrients, and bioregulators used in each treatment. It also does not mention the statistical methods used for data analysis, which are crucial for assessing the differences between the treatments given.• Recommendation: Provide details on the exact formulations and concentrations used in each treatment for fertilizers, micronutrients (ZnSO₄, Borax), and bioregulators (GA3 and NAA concentrations). Specific statistical methods were used to analyze the data (e.g., ANOVA tests and Duncan's test). <p>c. Results and Discussion:</p> <p>Results:</p> <ul style="list-style-type: none">• Strength: The results section presents data on flowering parameters (bud initiation date, flowering days) and fruit growth attributes (fruit length, weight, etc.) for each treatment.• Recommendation: Ensure that the tables are clear and easy to understand. Consider adding a caption to each table, which provides a brief overview of the data presented. We suggest that some tables be converted into bar charts or graphs to make the manuscript more engaging and easier for readers to understand. <p>Discussion:</p> <ul style="list-style-type: none">• Strength: The discussion attempts to interpret the results, noting how some treatments affect flowering and fruit development. Several pieces of literature are cited to support these interpretations.• Weakness: This discussion could benefit from a more in-depth explanation of how different treatments might have affected the observed outcomes. It also does not mention any limitations of the study.• Recommendation: The mechanisms by which fertilizers, micronutrients, and bioregulators influence flowering and fruit development. For example, discuss how GA3 concentrations might have influenced bud initiation, or how the combination of ZnSO₄	
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	<p>and Borax may have contributed to fruit size. Additionally, we acknowledge the limitations of this study (e.g., excluding other micronutrients or types of fertilizers). Add statistical test results to explain the best treatment and support why that treatment was the best according to the theory. On table 4. Fruit weight (gm) need to improve become Fruit weight (g).</p> <p>5. The manuscript appears to be scientifically grounded based on the information provided. Here's a breakdown of the strengths and weaknesses suggesting scientific correctness, along with recommendations for improvement:</p> <p>a. Strengths:</p> <ul style="list-style-type: none">• Research question: The study investigates a relevant question - how fertilizers, micronutrients, and bioregulators influence flowering and fruit development in ber cv. Umran.• Literature review: The introduction cites relevant literature on the importance of ber, the role of nutrients and bioregulators in plant growth, and their potential benefits for ber cultivation.• Methodology: The experiment uses a randomized block design with multiple treatments, including control groups.• Data collection: The manuscript describes data collection for flowering parameters (bud initiation, flowering days) and fruit growth attributes (length, diameter, weight, etc.).• Statistical analysis: The manuscript mentions statistical analysis of the results, although details are not provided. <p>b. Weaknesses:</p> <ul style="list-style-type: none">• Missing statistical details: The absence of details about the specific statistical tests used and p-values makes it difficult to assess the validity of the conclusions regarding significant differences between treatments.• Limited explanation of mechanisms: While the discussion mentions how some treatments might influence flowering and fruit development, a more in-depth explanation of the physiological mechanisms behind these observations would strengthen the scientific merit.• Potential bias in referencing: The literature review seems to focus mainly on studies supporting the positive effects of the treatments. Citing research with opposing or inconclusive results would provide a more balanced perspective. <p>c. Recommendations:</p> <ul style="list-style-type: none">• Provide statistical details: Include the specific statistical tests used (e.g., ANOVA) and p-values in the results and discussion sections. This strengthens the credibility of the findings.• Expand on mechanisms: In the discussion section, delve deeper into the physiological mechanisms by which the treatments might have influenced flowering and fruit development. Cite relevant scientific literature to support these explanations.• Balanced referencing: Ensure the literature review considers research with opposing or inconclusive results to provide a more comprehensive understanding of the topic. <p>6. The distribution of 38 references across different periods in your manuscript is as follows:</p> <ul style="list-style-type: none">• References from 2020 to 2024: 0%• References from 2015 to 2019: 22.22%• References from 2014 and earlier: 77.78% <p>a. Analysis of reference sufficiency and currency</p> <ul style="list-style-type: none">• Currency: The manuscript does not contain any references from the most recent period (2020-2024). This might be a point of concern, especially in fast-evolving fields where current research might impact the study's context and conclusions.• Recency: Most of the references were from 2014 or earlier, which dominates the citation list. While foundational studies are important, the lack of recent references suggests that the manuscript does not fully engage with the latest research developments.	
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	<p>b. Recommendations:</p> <ul style="list-style-type: none">• Update Literature Review: It advisable to incorporate more recent literature to demonstrate engagement with current research trends and developments. This will not only strengthen the relevance of the manuscript but also enhance its appeal to readers who are looking for the latest insights into the topic.• Include Contemporary Studies: Adding references from the past–3-5 years could provide newer perspectives or recent findings that could validate or challenge the conclusions of the manuscript.• Balance References: While essential to cite foundational research, balancing older references with newer studies can provide a more comprehensive view of the field and reflect ongoing debates or innovations. <p>c. Suggestions for Additional References</p> <p>Given the topic of the manuscript on agricultural practices and their effects on plant growth, it would be beneficial to include references from recent journals that focus on:</p> <ul style="list-style-type: none">• Advances in bioregulator technologies and their formulations.• Recent studies on the environmental impacts of fertilizer and micronutrient use in agriculture, especially under changing climatic conditions.• New methodologies for assessing plant growth and health in horticultural sciences. <p>Incorporating these references will provide a more rounded and up-to-date framework for research, thus enhancing its scientific validity and relevance.</p>	
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<p>Minor REVISION comments</p> <p>1. Is language/English quality of the article suitable for scholarly communications?</p>	<p>The language and English quality of the article are mostly suitable for scholarly communications, but there is room for improvement. Here's a breakdown of the strengths and weaknesses:</p> <ol style="list-style-type: none"> a. Strengths <ul style="list-style-type: none"> • Uses formal language • Follows a clear and organized structure (Abstract, Introduction, Materials and Methods, Results and Discussion) • Citations are included b. Weaknesses <ul style="list-style-type: none"> • Repetitive sentence structure • Some grammatical errors (e.g., "The investigations revealed that the various treatments have influenced this trait greatly" - This can be rephrased for more concise and impactful writing) • Lacks transitions between paragraphs (e.g., indicating how one idea leads to the next) • Some explanations are overly simplified and could benefit from more specific references (e.g., "The early onset of flowering may be attributed to the influence of GA3...") c. Here are some suggestions for improvement: <ul style="list-style-type: none"> • Vary sentence structure: Use a mix of short and long sentences to improve readability. • Improve sentence flow: Use transition words and phrases to connect ideas between paragraphs. • Strengthen explanations: Provide more specific details and references to support the claims made. <p>Overall, with some revisions, the language and English quality of this article could be suitable for scholarly communications.</p>	
<p>Optional/General comments</p>	<ol style="list-style-type: none"> 1. Methodology and Data Presentation: Specify the statistical tests used (e.g., ANOVA, Duncan's multiple range test) to assess the significance of the findings. 2. Results and Discussion: Discuss the physiological mechanisms by which treatments affect flowering and fruit development. Acknowledge limitations and include contrasting studies to provide a balanced view. 3. Literature Review and References: Ensure a balanced view by including studies with contrary results or non-conclusive findings. 4. Overall Structure and Content: Explore deeper into how different treatments might have influenced the observed outcomes and provide statistical results to back the treatment choices. 	

PART 2:

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

<p>Name:</p>	<p>Sukarman</p>
<p>Department, University & Country</p>	<p>Darwan Ali University, Indonesia</p>