

Review Form 3

Journal Name:	Asian Journal of Biology
Manuscript Number:	Ms_AJOB_129876
Title of the Manuscript:	Evaluation of the efficacy of three nutrient solutions for the hydroponic cultivation of tomato (<i>Solanum Lycopersicum L.</i>) in Côte d'Ivoire
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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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.	<ul style="list-style-type: none"> Hydroponics is a sustainable agricultural technique that uses less water and land compared to traditional soil-based farming. This research contributes to the development of efficient hydroponic systems, which is critical for addressing food security in Côte d'Ivoire and similar regions with limited arable land. By evaluating the efficacy of nutrient solutions, this study aims to optimize nutrient use, reducing waste and cost. <input type="checkbox"/> By identifying cost-effective and efficient nutrient solutions, this research can lower production costs for farmers, increasing profitability and encouraging the adoption of hydroponics in Côte d'Ivoire. 	
Is the title of the article suitable? (If not please suggest an alternative title)	<ul style="list-style-type: none"> The title is clear and specifies the evaluation of nutrient solutions for tomato cultivation. However, consider clarifying if the study focuses on yield, growth, quality, or overall efficacy. The title highlights hydroponic cultivation, which is relevant and timely for sustainable agriculture. If possible, consider including the type of hydroponic system (e.g., NFT, DWC, etc.) to narrow the scope. Suggested Revised Title: <p>"Comparative Evaluation of Three Nutrient Solutions for Hydroponic Tomato (<i>Solanum lycopersicum L.</i>) Cultivation in Côte d'Ivoire for Growth and Yield."</p>	

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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>Yes but The abstract lacks critical details regarding the three nutrient solutions tested in the study. Providing a brief description of their formulations or key differences would enhance the reader's understanding of the research context. Additionally, the abstract does not mention the statistical design or analysis methods employed. Including this information is essential to establish the scientific validity and reliability of the findings. Consider adding these details to make the abstract more comprehensive and informative." Include information about the experimental design (e.g., randomized complete block design, number of replications) and statistical tests used (e.g., ANOVA, LSD).</p>	
<p>Is the manuscript scientifically, correct? Please write here.</p>	<p>While the manuscript appears to address a relevant and significant topic, the absence of details on the nutrient solutions, statistical design in the abstract and hydroponic system, and environmental conditions limits its scientific completeness. By addressing these gaps, the manuscript can achieve greater scientific rigor and accuracy.</p>	
<p>Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.</p>	<p>Sufficient references but add some recent references more. Add the following also Chettri, Pravachan, Sanjoy Shil, and Umesh Thapa. 2024. "Quantifying the Impact of Nitrogen Concentration Variations on Quality Characteristics of Soilless Cultivated Cherry Tomato". Journal of Advances in Biology & Biotechnology 27(10):981-89. https://doi.org/10.9734/jabb/2024/v27i101521 (PDF) <i>Quantifying the Impact of Nitrogen Concentration Variations on Quality Characteristics of Soilless Cultivated Cherry Tomato</i>. Available from: https://www.researchgate.net/publication/384930454_Quantifying_the_Impact_of_Nitrogen_Concentration_Variations_on_Quality_Characteristics_of_Soilless_Cultivated_Cherry_Tomato [accessed Jan 08 2025].</p>	
<p>Is the language/English quality of the article suitable for scholarly communications?</p>		
<p>Optional/General comments</p>	<p>The paper does a good job of comparing its findings with similar studies, both in terms of flowering time and fruit yields. The results from this study, which show higher fruit yields than those reported by Gianquinto et al. (2007), underline the importance of nutrient solution formulation in optimizing hydroponic tomato production. The conclusion effectively summarizes the study's main findings and provides a clear recommendation. However, it could be strengthened by emphasizing the broader implications of the study, such as how these findings could be scaled or applied to improve hydroponic tomato production in other regions with similar climatic and agricultural conditions. Overall, the paper is well-written and provides valuable data and insights for researchers, growers, and policymakers interested in optimizing hydroponic systems for tomato cultivation. The findings contribute to the growing body of knowledge on soilless agriculture and could play a significant role in improving food security and agricultural productivity in regions like Côte d'Ivoire.</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:

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<p>Department, University & Country</p>	<p>BCKV (state Agriculture University), India</p>