

Review Form 1.7

Journal Name:	Asian Research Journal of Agriculture
Manuscript Number:	Ms_ARJA_119633
Title of the Manuscript:	MATHEMATICAL APPLICATIONS FOR SUSTAINABLE AGRICULTURAL DEVELOPMENT: A REVIEW
Type of the Article	Review Article

General guideline for 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 guideline for Peer Review process, reviewers are requested to visit this link:

(<https://www.journalarja.com/index.php/ARJA/editorial-policy>)

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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> <p>1. Is the manuscript important for scientific community? (Please write few sentences on this manuscript)</p> <p>2. Is the title of the article suitable? (If not please suggest an alternative title)</p> <p>3. Is the abstract of the article comprehensive?</p> <p>4. Are subsections and structure of the manuscript appropriate?</p> <p>5. Do you think the manuscript is scientifically correct?</p> <p>6. Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form.</p> <p><u>(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)</u></p>	<p>Yes. The manuscript "Mathematical Applications for Sustainable Agricultural Development: A Review" is indeed important for the scientific community as it elucidates the crucial role of mathematical principles in enhancing agricultural practices. By exploring the applications of mathematics in areas such as soil analysis, crop modeling, financial decision-making, and resource optimization, the review highlights how mathematical tools can drive sustainable agricultural development. This comprehensive overview can aid researchers, policymakers, and practitioners in understanding the potential of mathematics to improve efficiency, productivity, and environmental sustainability in agriculture. The manuscript also underscores the interdisciplinary nature of modern agricultural science, showcasing how mathematical models and statistical methods can contribute to informed decision-making and innovation in the field.</p> <p>Yes, the title is suitable.</p> <p>Yes, the abstract of the article is comprehensive.</p> <p>Yes, the subsections and structure of the manuscript are appropriate.</p> <p>Yes, the manuscript appears to be scientifically correct. It appropriately discusses the applications of mathematics in various aspects of agriculture, supporting its claims with references and logical explanations.</p> <p>The references provided are sufficient in number; however, many of them are quite dated, with some references as old as the 1970s and others primarily from 2015. For a review article discussing current applications of mathematics in sustainable agricultural development, it would be beneficial to include more recent sources to reflect the latest advancements and technologies in the field.</p> <p>Suggestions for additional references could include recent journal articles on precision agriculture, recent advancements in crop modeling, and updated statistical methods in agricultural research. These could be sourced from journals such as "Agricultural Systems," "Computers and Electronics in Agriculture," "Field Crops Research," or other relevant publications from the past five years.</p> <p>Adding recent references will strengthen the manuscript's relevance and provide readers with an up-to-date understanding of the current state of mathematical applications in agriculture.</p>	
<p>Minor REVISION comments</p> <p>1. Is language/English quality of the article suitable for scholarly communications?</p>	<p>Yes, the language and English quality of the article are suitable for scholarly communications. The text is clear, well-structured, and effectively conveys the necessary information.</p>	
<p>Optional/General comments</p>	<p>1. Introduction and Context: The introduction provides a good overview of the importance of mathematics in agriculture. However, it could benefit from a brief mention of recent technological advancements and their impact on sustainable agricultural practices.</p> <p>2. Depth of Analysis: The manuscript covers various aspects of mathematical applications in agriculture comprehensively. It might be useful to include more specific examples or case studies to illustrate how these mathematical applications have been successfully implemented in real-world scenarios.</p>	

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	<ol style="list-style-type: none">3. Recent Advances: Incorporating more recent references and advancements in the field, such as precision agriculture technologies, machine learning applications in crop prediction, and advancements in soil analysis techniques, would enhance the manuscript's relevance and depth.4. Interdisciplinary Connections: Highlighting the interdisciplinary nature of the field, where mathematics intersects with environmental science, biology, and technology, can provide a more holistic view of the subject matter.5. Practical Applications: Including practical applications and success stories from different regions or countries could provide a more global perspective on the topic.6. Future Directions: A section on future research directions or emerging trends in the use of mathematics in sustainable agriculture could provide valuable insights for researchers and practitioners.	
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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)
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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