Review Form 3

Journal Name:	**Journal of Experimental Agriculture International**
Manuscript Number:	**Ms_JEAI_123502**
Title of the Manuscript:	**Topography based soil profile characterization of KVK farm, Sakhigopal, Puri, Odisha located in the East and Southeastern Coastal Plain Agro-Climatic Zone of Odisha**
Type of the Article	

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PART 1: Review Comments

Compulsory REVISION comments	**Reviewer's comment**	**Author's Feedback** *(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)*
Please write a few sentences regarding the importance of this manuscript for the scientific community. Why do you like (or dislike) this manuscript? A minimum of 3-4 sentences may be required for this part.	This manuscript is significant as it provides valuable insights into the role of topography in soil profile characterization and its implications for crop production. By detailing the physico-chemical properties and nutrient status of soils across different topographic positions, the study contributes to the understanding of how landscape features influence soil fertility, which is crucial for sustainable agricultural practices. I appreciate the thoroughness of the study, especially the comprehensive analysis of nutrient distribution and soil management recommendations. However, the manuscript could benefit from clearer data visualization to make the results more accessible and easily interpretable.	
Is the title of the article suitable? **(If not please suggest an alternative title)**	The title is informative. It currently specifies the location and subject, which is good, but an alternative title could be: Soil Profile Characterization and Nutrient Distribution Across Topographic Gradients at KVK Farm, Sakhigopal, Odisha	
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.	The abstract provides a solid overview of the study, outlining the objective, methodology, and key findings. However, it could be more concise and focused to ensure that critical points stand out more clearly. Here are some suggestions for improvement: 1. The abstract could briefly mention the broader implications of the research, such as how the findings can benefit soil management and agricultural productivity in similar agro-climatic regions. 2. The results could be presented in a more concise manner. Instead of listing multiple values for parameters like organic carbon or pH, focus on the most important trends (e.g., "Organic carbon and nutrient levels increased towards lower topographic positions, reflecting the influence of moisture content and cropping intensity"). Suggested revision: Current: "To identify soil-related crop production constraints and to provide the necessary information for soil management decisions horizon-wise profile soil samples (from three profiles) at three topographic positions present at upland medium land and lowland from KVK farm Sakhigopal were collected and analysed for various physico-chemical and nutrient parameters." Revised: "This study aims to identify soil-related constraints for crop production and provide insights for soil management by analyzing soil profiles across different topographic positions (upland, medium land, and lowland) at KVK farm, Sakhigopal. The profiles were evaluated for key physico-chemical properties and nutrient content, revealing significant variations influenced by topography. These findings can guide land-use planning and help optimize crop productivity while sustaining soil health."	
Are subsections and structure of the manuscript appropriate?	The manuscript's structure is generally appropriate, but there are a few areas where improvement could enhance its clarity and readability: Strengths: 1. The manuscript follows a clear structure, moving from the introduction to the methods, results, discussion, and conclusion, which is standard and appropriate for scientific studies. 2. The subsections on methods and results are well-organized, with separate sections for different analyses (e.g., physical and chemical properties), making it easy to follow the data. Suggestions for Improvement: 1. Abstract: The abstract could be shortened slightly to improve clarity and focus, as mentioned	

	earlier. 2. Introduction: This section provides relevant background but could benefit from a more explicit statement of the study's objectives and hypotheses at the end. 3. Materials and Methods: - Some of the technical details (e.g., GPS device model, soil analysis methods) are important, but they can be streamlined or moved to a supplementary section to avoid overwhelming readers in the main text (this is just a suggestion!). - The subsections within this section are well-structured but could be made more concise without sacrificing important details. 4. Results and Discussion: Including figures or diagrams to visualize the data (e.g., graphs showing soil properties by depth) would enhance understanding and engagement. 5. Conclusion: This section is concise, but it could more explicitly state the implications of the findings for future research and practical soil management. Emphasizing broader applications beyond the study area would add value.	
Please write a few sentences regarding the scientific correctness of this manuscript. Why do you think that this manuscript is scientifically robust and technically sound? A minimum of 3-4 sentences may be required for this part.	This manuscript appears to be scientifically robust and technically sound due to its clear methodology and systematic approach to soil profile characterization. The use of established and widely accepted methods ensures the accuracy and reliability of the results. The study's comprehensive data collection across different topographic positions provides valuable insights into the relationship between topography and soil properties. Additionally, the thorough discussion of results, supported by relevant literature, reinforces the credibility of the conclusions drawn about soil fertility and land management strategies.	
Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.	The references in the manuscript are comprehensive, covering a range of studies related to soil characterization, nutrient distribution, and topography. However, many of the references are from earlier years (e.g., Bouyoucos 1962, Walkley and Black 1934), which, while still valid, could be complemented with more recent studies to ensure the manuscript is up-to-date with current research trends. Some references are from the 2020s, indicating the manuscript does include recent work, but it might benefit from incorporating additional recent literature, particularly in areas such as digital soil mapping, modern soil analysis techniques, or climate change's impact on soil properties.	
Minor REVISION comments **Is the language/English quality of the article suitable for scholarly communications?**	The language of the article is generally clear and understandable. However, there are instances where punctuation or phrasing could be improved for better clarity and flow. A thorough proofreading for minor grammatical errors, such as missing commas or incorrect word forms, would enhance the overall readability and professionalism of the manuscript.	
Optional/General comments		

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?	*(If yes, Kindly please write down the ethical issues here in details)*	

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