

Review Form 1.6

Journal Name:	Journal of Experimental Agriculture International
Manuscript Number:	Ms_JEAI_85071
Title of the Manuscript:	Characterization and Classification of High Density Apple Orchard Soils of North Kashmir
Type of the Article	Original Research 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:

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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)
Compulsory REVISION comments	<p>The Introduction section is concise yet well describes the research. It presents the reference to the manuscript scope.</p> <p>The authors present an in-depth literature review regarding soil properties. They study soil properties in orchards of Jammu and Kashmir region of north India. The reviewed literature include key sources on soil studies, environmental and chemical analysis and references previously published papers on morphological, physical and chemical properties of soils in related regions of India: Himalaya, Jammu and Kashmir etc. The sufficient citations to the previous works are provided.</p> <p>The knowledge gap being investigated is identified. It concerns identification of soil properties in the apple orchards of Jammu and Kashmir apple orchard soils under high density plantation.</p> <p>Thus, the paper presents a systematic study was undertaken so far with respect to soil characterization and classification of apple orchard soils under high density plantation. The authors applied purposive method of sampling and investigated 12 soil samples based on homogeneous properties, e.g., age, topography, rootstock.</p> <p>The submission clearly defines research questions, which are relevant and meaningful to agricultural, environmental and soil studies.</p> <p>The aim of this study consists in the following: this study had an aim to evaluate the most probable path of plant nutrients added to soil.</p> <p>The novelty is following: this study supports a better understanding of the soil genesis and the electro-chemical behaviour through investigation of the several soil profiles. Besides, detailed study of clay mineralogy may provide a tool to classify the soils up to series level.</p> <p>The statements are made as to how the study contributed to filling that gap. Specifically, the authors used a method of studying physico-chemical characteristics of soil in a specific region of India.</p> <p>Thus, the authors furthermore motivate the study by improving existing knowledge regarding soils in northern India.</p> <p>Then they discuss the importance of the investigating physical-chemical properties of soil for agriculture in the high-density orchards.</p> <p>The authors point at the factors of the importance of soil study in India,</p> <p>The Introduction is finished by concluding the and actuality of this study.</p> <p>Thus, the Introduction provides a well presentation of the undertaken research, describing the existing approaches and underlining the gaps.</p> <p>Methods and data</p> <p>The investigation has been conducted rigorously and soil sampling is well described.</p>	

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	<p>Soil profiles are described with sufficient information regarding detailed chemical content and physical properties, to be reproducible by another investigator. The research has been conducted in conformity with the prevailing ethical standards in the agriculture field.</p> <p>Results The data are robust (12 soil profiles), statistically sound, and controlled. Statistical analysis was made in SPSS. The data on which the conclusions are based are available using investigated soil profiles collected from various areas and depths The authors presented not only the tables with chemical analysis but also explained the reasons for variations of chemical elements within soil profiles over depth and in various altitudes (e.g., leaching, transport of elements, etc). The study provided a rationale for the methods of soil study, and clearly described how it added value to the existing literature in soil studies and agriculture in northern India. Research highlights state the major achievements of this study in the Results: On the basis of the U.S. Comprehensive System of Soil Classification as per Keys to Soil Taxonomy (Soil Survey Staff, 2014) and Soil Survey Manual (Soil Survey Staff, 2003), the authors studied profiles and classified them. They were placed in the orders of Mollisols, Alfisols, Inceptisols and Entisols and the suborders Udolls, Udalfs, Orchrepts and Orthents. The great groups to which these soils were further classified are Argiudolls, Hapludalfs, Eutrochrepts and Udorthents, Map of the study area is provided, Tables with physico-chemical evaluations of the profiles are presented. The statistical analysis was done using SPSS.</p> <p>Discussion The study uses logic description in Methodology and Results. In particular, claims of a causative relationship and correlations between content of minerals and substances in soil profiles and processes that trigger variations. The results are supported by a well-controlled experimental intervention. Decisions are made based on objective determination. The morphological characteristics of the soil profiles as well as physico-chemical properties are discussed in details and supported by tables.</p> <p>Conclusion The conclusions are appropriately stated, connected to the original question investigated, and limited to those supported by the results.</p>	
<u>Minor</u> REVISION comments	<p>The importance and novelty of this study consists in evaluation of soil properties in Indian orchards with aim to improve the yield and to better understanding of factors controlling harvest in northern India.</p> <p>However, many minor grammar mistakes and misprints are found throughout the text. I have corrected them. Please correct using 'Accept Changes' to improve the paper. References should also be corrected (I have made corrections). The paper can be accepted after the suggested corrections of the manuscript.</p>	
<u>Optional/General</u> comments	<p>The submission adheres to the journal policies and general standards. The article conforms to general professional standards of sustainable agriculture domains by expressions used in the text.</p> <p>The article includes sufficient introduction background on soil studies in India to demonstrate how the work fits into the broader field of knowledge and what research gaps are covered.</p> <p>The main academic contribution is stated clearly: studying soil profiles in northern India located in</p>	

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	<p>the high-density apple gardens. The description of the novelty of this paper and its contribution to the increase of knowledge in agriculture domain are presented.</p> <p>Relevant prior literature is appropriately referenced. The structure of the submitted article conforms to an acceptable format of standard sections: Introduction, Methodology, Results and Discussion, Conclusion, References.</p> <p>Some departures in structure are made in relevant subsections (chemical analysis of soils in section 3. Physico-chemical properties of profiles), which significantly improved clarity and conformed to a discipline-specific custom in biochemical studies.</p> <p>Figures and Tables are relevant to the content of the article. They are of sufficient resolution, appropriately described and labeled using continuous numeration. The submission is self-contained, represents an appropriate unit of publication, and includes obtained results relevant to the research goals and objectives of this study focused on soil studies in India.</p> <p>The present results are compared with other studies in the discussion. Many findings of the authors are supported by the existing ones which proves the correctness of the methods.</p> <p>The variations of the soil content with respect to the altitude and depth are described in details and explained. The novelty of present paper compared to the existing studies on soil in India is described, which justified that it deserves to be published in the <i>Journal of Experimental Agriculture International</i>. The submission describes the original primary research within the aims & scope of the <i>Journal of Experimental Agriculture International</i>.</p>	
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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?	(If yes, Kindly please write down the ethical issues here in details)	

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