

Review Form 1.7

Journal Name:	International Journal of Plant & Soil Science
Manuscript Number:	Ms_IJPSS_119489
Title of the Manuscript:	Influence of Different Levels of NPK, Biochar and Azotobacter on Physico- Chemical Properties of Soil on Cowpea (Vigna unguiculata)
Type of the 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.journalijpss.com/index.php/IJPSS/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> <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>	<p>1-Importance of the topic: It is one of the important topics that serves the agricultural community.</p> <p>2-The title of the article, "Influence of Different Levels of NPK, Biochar and Azotobacter on Physico-Chemical Properties of Soil on Cowpea (<i>Vigna unguiculata</i>)," effectively conveys the main focus of the study. However, for enhanced clarity and conciseness, an alternative title could be: "Effects of NPK, Biochar, and Azotobacter on Soil Properties for Cowpea Cultivation <i>Vigna unguiculata</i> .L"</p> <p>3- Overall, the abstract effectively summarizes the study's objectives, methodology, results, and conclusions, making it comprehensive in providing an overview of the research conducted on the influence of NPK, biochar, and Azotobacter on soil properties for cowpea cultivation.</p> <p>4- Yes, quite appropriate. In the introduction section, it is noted that the research did not emphasize the significance of biochar and its properties in enhancing soil characteristics, particularly in relation to water retention. Therefore, it is essential to include relevant studies that highlight the role of biochar in improving soil properties, specifically focusing on water retention, to ensure the development of accurate interpretations.</p> <p>5- In view of the research methodology, as well as the methods used in soil analysis and statistical design, the research is correct to some extent from a scientific standpoint, but some important points must be considered, which will make the research appear better and can be addressed in the following points:</p> <ul style="list-style-type: none"> • The primary water from which biochar is derived, the method of preparation, and how to obtain it must be written and mentioned • Mention the properties of biochar in the table and the properties of the soil before planting. • Cite references about the NPK levels used in the study and the method of applying it to the soil. • - It is important to address and calculate the cation exchange capacity of soil • - The details of the bacteria and vaccine used in biofertilization and how to obtain them were not mentioned <p>6- The references are insufficient, especially in the introduction part and review of previous studies. There are important references, especially in the part related to biochar, which will be mentioned in the references part.</p> <p>The paper presented is good, but it lacks explanations. Likewise, the researcher did not address topics that reflect the importance of the research, including the density of biochar, the mechanism of holding soil granules, how to calculate pores, rates, or methods used, and the researcher did not link the porosity of coal to the porosity of the soil, the effect on density, and the effect of Azeobacter bacteria on soil properties. The researcher also mentioned In the conclusion part, use organic fertilizers. It must be clarified that biochar is an elemental carbon that is a soil improver and is not considered an organic fertilizer that releases nutrients to the plant due to the slow decomposition of biochar.</p>	
<p>Minor REVISION comments</p> <ol style="list-style-type: none"> 1. Is language/English quality of the article suitable for scholarly communications? 	<p>Yes very good</p>	

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Optional/General comments	The researcher should include a comprehensive list of previous studies with proper references, particularly in the introduction section. It is crucial to provide future research recommendations and suggestions, and the conclusion section should be carefully considered to summarize the key findings and implications of the study. Some references that can be used: Lehmann, J., & Joseph, S. (2012). Biochar systems. In <i>Biochar for environmental management</i> (pp. 179-200). Routledge. http://ndl.ethernet.edu.et/bitstream/123456789/20163/1/98.pdf#page=180	
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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>	

Reviewer Details:

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