Review Form 1.6

Journal Name:	**International Journal of Plant & Soil Science**
Manuscript Number:	**Ms_IJPSS_84408**
Title of the Manuscript:	**Use of Biochar as Soil Amendment for Improvement of Soil Properties and Yield of Spinach (Spinacia oleracea) Leafy Vegetable**
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:

(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)*
Compulsory REVISION comments	Congratulations. Suggested Title: Microbial enriched biochar levels and fertilizer doses on soil chemical properties under Spinach production Abstract: Intensive cultivation of vegetables and imbalanced fertilization depleted the soil nutrients and caused low yield with poor quality crops. A novel microbial enriched biochar and fertilizer combination could alleviate the soil and nutrient stress. Therefore, a field experiment was conducted with 14 treatments [4 levels of biochar (5, 7.5,10, 15 t ha^{-1}), 3 doses of fertilizers (50, 75,100% of recommended) along with without biochar and absolute control] in spinach production. This study was conducted with randomized block designed and replicated thrice at BAIF, Central Research Station, Pune during 2020-2021. Maximum growth parameters (plant height, leaf length, leaf width and petiole length) were recorded in (T4) with Biochar @ 10 tha^{-1} + 75% of RDF followed by in (T7) Biochar @ 7.5 tha^{-1} +50% of RDF. Whereas, the highest Spinach yield (18.58 tha^{-1}) was recorded under (T4) Biochar @ 10 tha^{-1} + 75 % of RDF followed by (T3) Biochar @ 7.5 tha^{-1} + 75 % of RDF recorded (17.93 tha^{-1}). The treatment (T1) @ 100 % RDF has registered as superior from an economic point of view. Furthermore, the minimum values of growth and yield were recorded under absolute control. Based on the above results it is concluded that the combined application of biochar(10t ha-1) and fertilizers (75% of recommended dose) enhanced the nutrient availability to spinach. Add few lines about spinach and their constraints on production. Nutrient enrichment by impregnation and intercalation with biochar have improved their use efficiency (Manikandan and Subramanian 2013; 2015). Reference also provided Provide Initial soil characteristics in words or table Give details of Spinach variety, duration, sowing date, spacing, fertilizer recommendation, irrigation schedule and harvesting. Why did you select subabul? Brief about production efficiency and cost of biochar How did you fix 20% for microbial enrichment. If any reference is available mention it.	
Minor REVISION comments	Is there any change compared to initial soil chemical properties? Highlight it. Application of microbial enriched biochar with 75% of RDF (T4) given maximum yield. Microbial enriched biochar	
Optional/General comments	For better understanding of the results, data may be compared with either RDF or control. In another way group them as per level or dose (5,7.5,10 and 15 t ha-1 or 50,75,100% fertilizer dose)	

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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)*	

Reviewer Details:

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