

Review Form 3

Journal Name:	Journal of Advances in Biology & Biotechnology
Manuscript Number:	Ms_JABB_130396
Title of the Manuscript:	Characterisation of coconut shell biochar and its influence on soil biological properties, bioavailability of major nutrients and Soybean (Glycine max L.) yield in acidic soils of Eastern Dry zone of Karnataka
Type of the Article	Original Research Article

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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 guidelines for the Peer Review process, reviewers are requested to visit this link:

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PART 1: Comments

	Reviewer's comment	Author's Feedback <i>(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
Please write a few sentences regarding the importance of this manuscript for the scientific community. A minimum of 3-4 sentences may be required for this part.	This manuscript provides significant insights into the synergistic effects of phosphorus-solubilizing bacteria (PSB) and zinc-enriched coconut shell biochar as sustainable soil amendments. It highlights their potential to address nutrient deficiencies in acidic soils, improving soil health, microbial activity, and nutrient bioavailability, particularly for phosphorus and zinc. The study's findings are vital for developing sustainable agricultural practices, as they demonstrate enhanced soybean yields and improved soil biological properties. This research contributes to the growing body of knowledge on integrating organic and microbial solutions for sustainable crop production and soil fertility management in nutrient-deficient regions.	
Is the title of the article suitable? (If not please suggest an alternative title)	The current title, "Characterisation of coconut shell biochar and its influence on soil biological properties, bioavailability of major nutrients and Soybean (Glycine max L.) yield in acidic soils of Eastern Dry Zone of Karnataka," is informative but could be simplified for clarity and conciseness. While it covers key aspects of the study, it is lengthy and could benefit from emphasizing the core findings.	
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.	<p>The abstract provides a good summary of the study's objectives, methodology, key findings, and significance.</p> <p>Suggestions for Addition:</p> <ol style="list-style-type: none">Explicit Mention of Study Location: Although the study refers to the Eastern Dry Zone of Karnataka, it would be helpful to specify the experimental site (ICAR-KVK, Hadonahalli) in the abstract to enhance context.Statistical Significance: Include details about the statistical significance of the results (e.g., P-values or confidence intervals) to make the findings more impactful.Biochar Characterization Summary: While the biochar's effects are discussed, adding a brief mention of its key properties (e.g., pH, water-holding capacity, or nutrient content) can provide insight into its role as a soil amendment.Environmental Impact: Highlight how the use of PSB and zinc-enriched biochar contributes to sustainable agriculture or mitigates environmental challenges like nutrient leaching.	

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	<div>5. Specificity in Yield Data: The mention of soybean yield in T6 (23.61 q ha⁻¹) is informative, but providing a comparative improvement (e.g., "an X% increase over the control") would emphasize its importance.</div> <div>Suggestions for Deletion or Refinement: 1. Repetition: The abstract repeats certain ideas (e.g., enhanced soil health, synergistic interactions). Condense these points to reduce redundancy and save space for additional information. 2. Overuse of General Terms: Replace vague phrases like "significant improvements" or "enhanced yield" with specific metrics or percentages. 3. Control vs. Other Treatments: The control treatment's yield is mentioned (8.39 q ha⁻¹), but comparisons with other treatments like the package of practice (T2) are missing. Either include these comparisons or focus solely on the highest-performing treatment.</div>	
Is the manuscript scientifically, correct? Please write here.	The study appears to be scientifically sound. The authors have provided detailed descriptions of the experimental design, treatments, biochar characterization, and analysis of soil properties and crop yield.	
Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.	The references cited in the manuscript are relevant and mostly align with the study's context. However, there are areas where additional or more recent references could further strengthen the manuscript, especially to highlight recent advancements in biochar applications, phosphorus-solubilizing bacteria (PSB), and their synergistic effects in acidic soils.	
Is the language/English quality of the article suitable for scholarly communications?	The language of the article is generally clear and understandable, making it suitable for scholarly communication.	
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)	

Reviewer Details:

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