

Review Form 3

Journal Name:	Asian Journal of Soil Science and Plant Nutrition
Manuscript Number:	Ms_AJSSPN_122217
Title of the Manuscript:	Efficiency of the combination of vermicompost and zero valent iron for the remediation of lead, copper and aluminum
Type of the Article	Original Research Article

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

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PART 1: Review Comments

Compulsory REVISION 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>
<p>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.</p>	<p>this manuscript is significant for the scientific community as it addresses the pressing issue of heavy metal contamination in soils, particularly in mining areas, and explores innovative remediation techniques using vermicompost and zero-valent iron. The findings contribute valuable insights into sustainable agricultural practices and environmental management, highlighting the potential of organic amendments in reducing toxic metal bioavailability. Additionally, the research methodology and results provide a framework for future studies aimed at improving soil health and safety. Overall, I appreciate this manuscript for its practical implications and its contribution to the field of environmental science and remediation technologies.</p>	
<p>Is the title of the article suitable? (If not please suggest an alternative title)</p>	<p>Yes, the title of the article is suitable as it clearly conveys the main focus of the research, which is the efficiency of combining vermicompost and zero-valent iron for the remediation of lead, copper, and aluminum in contaminated soils. However, an alternative title could be: "Evaluating the Combined Effects of Vermicompost and Zero-Valent Iron on Remediation of Heavy Metal Contamination in Mining-Affected Soils." This alternative emphasizes the evaluation aspect and specifies the context of mining-affected soils. The abstract of the article is generally comprehensive as it outlines the aims, study design, methodology, results,</p>	
<p>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>	<p>nd conclusions. However, to enhance clarity and completeness, I suggest the following additions:</p> <ol style="list-style-type: none"> Specificity in Methodology: Include a brief mention of the specific types of soil analyzed and the rationale for choosing those particular soils. This would provide context for the study's relevance. Quantitative Results: While the abstract mentions the maximum removal percentages for lead, copper, and aluminum, it could benefit from including the initial concentrations of these metals in the soil to give readers a clearer understanding of the remediation effectiveness. Implications of Findings: A sentence summarizing the broader implications of the findings for environmental management or agricultural practices could strengthen the conclusion of the abstract. <p>Overall, these additions would provide a more rounded overview of the research and its significance.</p>	
<p>Are subsections and structure of the manuscript appropriate?</p>	<p>Yes, the subsections and structure of the manuscript are appropriate. The manuscript is organized logically, with clear sections including an abstract, introduction, methodology, results and discussion, and conclusion. Each section serves its purpose effectively, providing a coherent flow of information. The introduction sets the context and importance of the study, while the methodology details the experimental design and techniques used. The results and discussion section presents findings in a structured manner, allowing for a clear understanding of the outcomes and their implications. The conclusion succinctly summarizes the key findings and their relevance. Overall, the structure facilitates comprehension and allows</p>	

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	<p>readers to follow the research process and results easily.</p>	
<p>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.</p>	<p>This manuscript demonstrates scientific robustness and technical soundness through its rigorous methodology and comprehensive analysis of soil remediation techniques. The use of established methods for soil sample analysis, such as atomic absorption spectrometry and loss on ignition for organic matter determination, ensures reliable and accurate data collection. Additionally, the study employs a systematic approach to evaluate the effectiveness of vermicompost and zero-valent iron in reducing heavy metal concentrations, supported by quantitative results that highlight the efficiency of various treatment ratios. Furthermore, the discussion contextualizes the findings within existing literature, reinforcing the validity of the results and their implications for environmental remediation practices. Overall, the manuscript reflects a thorough understanding of the subject matter and adheres to scientific standards, making it a valuable contribution to the field.</p>	
<p>Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form. =</p>	<p>The references in the manuscript appear to be sufficient and relevant, covering a range of studies that support the research findings and contextualize the work within the existing literature. However, while some references are recent, others date back several years. To enhance the manuscript's credibility and relevance, it would be beneficial to include more recent studies, particularly those published within the last 2-3 years, that focus on soil remediation techniques, vermicomposting, and the effects of heavy metals on soil health.</p> <p>Additionally, I suggest considering the following references for inclusion:</p> <ol style="list-style-type: none"> 1. Recent Review Articles: Look for recent review articles on soil remediation technologies that discuss advancements in the field, particularly those that include vermicomposting and zero-valent iron. 2. Studies on Heavy Metal Bioavailability: Include studies that specifically address the bioavailability of heavy metals in soils treated with organic amendments, as this would provide further context for the findings. 3. Environmental Impact Assessments: References that discuss the broader environmental impacts of heavy metal contamination and remediation efforts could strengthen the manuscript's implications. <p>Incorporating these additional references would provide a more comprehensive background and support for the</p>	

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<p><u>Minor REVISION</u> comments</p> <p>Is the language/English quality of the article suitable for scholarly communications?</p>	<p>The language and English quality of the article are generally suitable for scholarly communication. The manuscript employs a formal tone appropriate for scientific writing, and the terminology used is relevant to the field of soil remediation and environmental science. The structure of sentences is clear, and the ideas are conveyed logically, allowing readers to follow the research narrative effectively. However, there may be minor grammatical errors or awkward phrasing that could be improved for clarity and readability. A thorough proofreading process could help enhance the overall quality of the language, ensuring that it meets the high standards expected in scholarly publications. Additionally, ensuring consistency in terminology and formatting throughout the manuscript would further strengthen its professionalism. Overall, with some minor revisions, the language quality would be well-suited for academic discourse.</p> <p>The manuscript presents a valuable investigation into the effectiveness of vermicompost and zero-valent iron for enhance the manuscript:</p> <ol style="list-style-type: none">1. Clarification of Results: While the results are presented clearly, providing more detailed statistical analyses, such as confidence intervals or p-values, would strengthen the findings and allow for a better understanding of the significance of the results.2. Visual Aids: Including additional visual aids, such as graphs or tables summarizing the data, could enhance the reader's comprehension of the results. Visual representations of the metal removal efficiencies across different treatments would be particularly helpful.3. Discussion of Limitations: A section discussing the limitations of the study, such as potential variability in soil types or the scalability of the remediation techniques, would provide a more balanced view of the research and its applicability in real-world scenarios.4. Future Research Directions: Suggesting areas for future research, such as long-term effects of the treatments on soil health or the potential for scaling up the remediation techniques, could provide valuable insights for other researchers in the field.5. Interdisciplinary Connections: Highlighting the interdisciplinary nature of the research, such as its implications for agricultural practices, environmental policy, or public health, could broaden the manuscript's appeal and relevance to a wider audience. <p>Incorporating these suggestions could enhance the manuscript's depth and impact, making it a more comprehensive contribution to the field of environmental science and soil remediation.</p>	
<p><u>Optional/General</u> comments</p>		

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PART 2:

	Reviewer's comment	Author's comment <i>(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)</i>
Are there ethical issues in this manuscript?	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

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