

# Review of: "Analyzing the Effects of Organic Amendments on Soil Erosion Dynamics: A Comprehensive Study on Application Methods and Timing"

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Potential competing interests: No potential competing interests to declare.

-Abstract should quantitatively outline the main findings of the research and provide explicit details about the mechanism of action. Currently, the abstract is overly general and lacks specific quantitative results and mechanistic explanations. Adding specific numerical findings and a clear description of the mechanisms involved would significantly enhance the quality of the abstract.

-The introduction sets the stage for the study, outlining the significance of soil erosion and the potential impact on agriculture and environmental sustainability. The references provided lend credibility to the importance of the research topic. However, the introduction could benefit from a clearer statement about the specific gap or problem the study aims to address, setting a stronger foundation for the study's objectives. It may not be necessary to cite numerous references for commonly known statements. The extensive use of citations in the introduction suggests that the work may have been replicated previously. Therefore, it's important to ensure that the citations provided in the introduction are essential and add unique value to the study.

-The detailed methodology ensures replicability and transparency of the study. It encompasses the soil sampling procedures, characteristics of the organic amendments, and the application of the rainfall simulator. The inclusion of geographical coordinates and sampling site characteristics adds robustness to the study. However, the presentation of the rainfall simulator characteristics and the experimental design could be expanded to provide a more comprehensive understanding of the study's setup.

- The effect of the treatments on the soil organic matter changes at the end of the test should be measured and reported, and all the changes obtained were due to the soil organic matter changes. I wonder why it is not measured.

-The presentation of results is comprehensive, incorporating statistical analyses and presenting significant findings. However, the paper lacks explicit details on the specific statistical tests used and their outcomes. Additionally, the graphical representation of the data is effective, providing clarity on the observed trends.

-Discussion is descriptive and just wanted to confirm other people's results. A more detailed discussion of the novelty and

significance of the study's findings, particularly regarding the potential impact of barberry biochar as a novel organic amendment, would enrich the paper.

-The comparative analysis with existing literature strengthens the study's findings and contextualizes them within the broader scientific landscape. However, a more explicit comparison with existing research and an exploration of potential discrepancies or areas of consensus could further enhance the discussion.

In conclusion, the article demonstrates a comprehensive understanding of soil erosion dynamics and the potential impact of organic amendments, particularly barberry biochar. While the study effectively presents its methodology and results, there is room for improvement in explicitly detailing the statistical analysis, discussing the specific novelty and implications of the findings, and explicitly comparing the results with existing literature. The overall rating of 3.56 out of 5 reflects the comprehensive nature of the study and its potential for further refinement and enhancement in certain areas.