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

Jawad Ali[1]

1 Shandong University

Potential competing interests: No potential competing interests to declare.

Soil erosion is a crucial problem directly affecting the health and quality of soil, which in turn has the worst effect on ecology and agricultural commodities grown on that soil. Numerous studies have recommended various organic and inorganic amendments to overcome soil erosion problems, but still, studies revealing the amendments with cost-effective and environmentally friendly approaches are scarce. This study aims to analyse the effects of various organic amendments, including barberry biochar, vermicompost, poultry manure, and wheat straw residues, by surface spreading and thoroughly mixing on soil texture and soil health. The study analyses the proportion of sand, silt, and clay contents before and after various amendments with and without the application of simulated rainfall. The findings provide basic data about the application of barberry residues in South Khorasan to overcome the soil erosion problem as well as manage the waste of barberry residue in a friendly way.

This work is interesting and can serve as a scientific benchmark to overcome the soil erosion and barberry waste problems in Southern Khorasan. Overall, the study represents good data analysis and interpretation. The paper is generally well-written; however, I propose some suggestions that may improve the quality of the study.

In the introduction section, the novelty of the study should be clearly mentioned. As the authors stated, “While research worldwide has delved into the effects of various organic amendments, biochar, and combinations on crop yield, soil fertility, erosion, and water dynamics (Doam et al., 2015), gaps in understanding persist,” but the authors only described the effects of various amendments on soil erosion rather than discussing the understanding of the mechanism or interaction of various organic materials with soil particles that make them stable or reduce soil erosion.

The figures of the whole manuscript should be changed to meet the requirements of publication. Each picture in a figure, as well as fonts, should be unified and revised accordingly to make them visually appealing.

The conclusion also needs revision and reconsideration. Include the following: new concepts and innovations demonstrated in this study, a summary of findings, and a concluding remark.

Try to use a concise and comprehensive title that can cover the results and discussion section rather than using small titles/headings containing 1-2 lines paragraphs.