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

Igor Rodrigues Assis[1]

1 Universidade Federal de Viçosa

Potential competing interests: No potential competing interests to declare.

The manuscript deals with a subject of great global relevance and is well-written. However, some important points need to be revised so that the work can be published. Below are the main changes to be made:

- The Abstract needs to be improved, following the structure Introduction, Objectives, Material and Methods, and main results and conclusions. After starting to present the results, it goes back to the objectives.

- Section 2 should preferably be called Material and Methods.

- I suggest inserting the classification of the soil sampled according to the WRB-FAO international classification.

- In Figure 2, it is impossible to read some of the text.

- The scientific name of the earthworm should be in italics.

- The ASTM D-285 method was cited for determining bulk density, which is incorrect.

- The methods for determining all the chemical elements were not cited, and the EAGER 300 instrument only determines CNHSO.

- No method was cited for determining electrical conductivity.

- The authors need to explain why the 5% dose of soil amendments was used.

- The authors consider the experiment to be a complete triple factorial, which would be 5x4x2, with 4 repetitions, totaling 160 experimental units. However, this is not possible, as the control treatment cannot be considered a soil amendment, nor is it possible to have incorporation or surface application in the control treatment, nor does it have different contact times with the organic conditioners. Therefore, the correct factorial scheme should be (4x4x2)+1, with 4 repetitions, totaling 132 experimental units. This alters all the statistical analyses carried out.

- In the Results section, the tables show the effect before and after the rainfall, but this is not a variation factor in the study. The factors are amendments, time, and mode of application.

- The Results section should begin with text stating which variables showed a significant three-way interaction, which

showed a significant two-way interaction, and which showed differences only for single factors. Thus, the way the results are presented in the tables will vary depending on the significance of the interactions. Thus, the description of the results needs to be greatly improved.

- The conclusion must be more direct and objective, without discussing the results.