Review: Conquering Soil Acidification The Synergistic Effects of Basalt Powder, Lime, and PAM.

General Comments

I enjoyed reading the manuscript 'Conquering Soil Acidification The Synergistic Effects of Basalt Powder, Lime, and PAM', studied in Jiangxi Province, China.

One important concern is the standard of writing of the manuscript. I could say poor structure of sentences through out the manuscript. It requires restructuring the sentences for easy to read, clear and concise of the meaning and keep the bonding among the sentences in a paragraph and also paragraphs to sections.

Abstract

The abstract is to be clear and concise aligning with the title of the manuscript. it could be improved keeping in mind the classical structure of a good abstract.

L26-27 introductory sentence -good start.

L28-29 – the objectives is not clear. Is it 'to investigate the potential improvement of acid yellow soil' or ' to investigate the combined application of basalt powder, lime, and polyacrylamide (PAM) for the improvement, ,, ,,, "

L30-31 - Do you mean CaO as Lime, then introduce it at earlier. Why these sentence is here? Is the methods to establish the objectives? Need to be linked with objectices?

L-32 data analysis – XRF is data analysis tool rewrite it.

L-33-41 Results – rearrange and rewrite the results to support the objectives, not only presenting the data.

L-41- 43 - Outcomes – rewrite it to be focused.

1. Introduction

L-46-49 – This sort of sentence structure is used all-around the manuscript. These are not easy to read and understand and free flow of the topic. Please rewrite these sentences to make it concise and clear meaning.

Uses of Meanwhile, consequently, Simultaneously, meanwhile ,,,, with thereby ' phrase does not make the text readers friendly for a human.

Paragraph structure- make a topic sentence followed by the relevant information.

Research gap – discuss the relevant topics in introduction and narrow down into the research gap. Link the research gap with the objectives of the present study.

2. **Material and Methods**

2.1 Soil - L120 reference?

2.2 Amendments – purchasing procedure is not good use in academic writing.

L124-134 - Make it simplified.

3. **Results**

In Results, the manuscript contains several concepts, which could be presented in Introduction to find the research gap and link the objectives with the gap. For example, L 190 196 is not results.

 Statistical analysis is a good way to present the data (L 30). There could be several combination of experiments, based on CaO with various proportion (L30). Present these comparative studies and suggest from these the effective combination to gain the outcome.

4. **Discussion**

In discussion, relate the results to establish the objectives. It could be referred or refuted arguments using other references.

5. **Conclusion**

As I understood, it was a comparative study among combination of basalt powder, CaO, and PAM mixed modifier on soil enhancement. Rewrite the conclusion that the objectives were achieved.

L 376 - It is not worthy to present a new concepts in conclusion without discussing in results and discussion. For example, 'optimal pH' Only one time used in the text. Is it your objectives or comparative tool?

L-378- 382 rewrite coherently with the text.

L 384 – 385 ????

Additional comments

The manuscript requires a major change/ restructuring in presenting the results. Keep in mind that the literature reviews will be presented in Introduction, to find a research gap, which could be the aims of manuscript. The aims will be achieved by several objectives. To gain the objectives, the appropriate methods will be followed. The data/ results will be presented to achieve each objectives, finally, the aims of the manuscripts.