Review Form 3

Journal Name:	**International Journal of Environment and Climate Change**
Manuscript Number:	**Ms_IJECC_128463**
Title of the Manuscript:	**Impact Of Combined Applications Of Liming Materials And Co-Composted Biochar On Subsoil Acidity And Aluminium Toxicity In The Southern Laterite Soils Of Kerala**
Type of the 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:

https://r1.reviewerhub.org/general-editorial-policy/

Important Policies Regarding Peer Review

Peer review Comments Approval Policy: https://r1.reviewerhub.org/peer-review-comments-approval-policy/
Benefits for Reviewers: https://r1.reviewerhub.org/benefits-for-reviewers

PART 1: Comments

	Reviewer's comment	**Author's Feedback** *(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)*
Please write a few sentences regarding the importance of this manuscript for the scientific community. A minimum of 3-4 sentences may be required for this part.		
Is the title of the article suitable? (If not please suggest an alternative title)		
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.		
Is the manuscript scientifically, correct? Please write here.		
Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.		

Review Form 3

Is the language/English quality of the article suitable for scholarly communications?		
Optional/General comments	The manuscript presents a relevant study on the impact of the combined application of liming materials and co-composted biochar on mitigating subsoil acidity and reducing aluminum toxicity in laterite soils of southern Kerala. The abstract adequately presents the objectives, methodology, and key findings of the study. However, the explanation of technical terms such as "½ LR" would be essential to enhance understanding among an interdisciplinary audience. In the introduction, the manuscript provides a solid and well-contextualized theoretical foundation, outlining the problem of soil acidity and its relationship with aluminum toxicity in tropical conditions. The comprehensive approach highlights the challenges faced in agricultural production systems in acidic soils and the scientific gaps that justify the study. Nonetheless, some redundancies could be eliminated, and the introduction could more clearly emphasize the originality of the study and its specific contribution to advancing knowledge. The methodology section is detailed and rigorous, enabling replication and critical evaluation of the procedures. The choice of co-composted biochar and the liming materials used was appropriately justified, and the experimental design was suitable for testing the formulated hypotheses. However, it is recommended to simplify the description of established methods, such as measuring root volume, by referencing classical literature and providing more details on the criteria for determining the doses of materials applied. The results are clearly presented, with tables and statistical values validating the analyses. The discussion of the results is coherent and well-supported, connecting the study's findings to evidence in the literature. Nevertheless, it would be beneficial to delve deeper into the chemical mechanisms involved, such as the interaction between biochar and acidic soil components, to provide a more robust interpretation of the data. The conclusion effectively summarizes the main findings of the study, highlighting the efficacy of the combined approach in mitigating soil acidity and reducing aluminum toxicity. Overall, the manuscript is well-structured, scientifically robust, and addresses a highly relevant topic for soil management systems in acidic conditions. With minor improvements in clarity and a deeper discussion, the study has significant potential to contribute to advancing scientific knowledge and developing more sustainable agricultural practices.	

PART 2:

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

Reviewer Details:

Name:	**André Junior Ogliari**
Department, University & Country	**Community University of Chapecó Region – UNOCHAPECÓ, Brazil**