Review Form 1.7

Journal Name:	**International Journal of Environment and Climate Change**
Manuscript Number:	**Ms_IJECC_106596**
Title of the Manuscript:	**Robust NIRS models for non-destructive prediction of physicochemical properties and ageing of basmati rice**
Type of the Article	**Original Research Article**

PART 1: Review Comments

	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)*
Compulsory REVISION comments **1. Is the manuscript important for scientific community?** (Please write few sentences on this manuscript) **2. Is the title of the article suitable?** (If not please suggest an alternative title) **3. Is the abstract of the article comprehensive?** **4. Are subsections and structure of the manuscript appropriate?** **5. Do you think the manuscript is scientifically correct?** **6. Are the references sufficient and recent? If you have suggestion of additional references, please mention in the review form.** **(Apart from above mentioned 6 points, reviewers are free to provide additional suggestions/comments)**	The present manuscript stands out significantly in the scientific community, emphasizing the usefulness of spectral analysis and advanced statistical techniques to monitor physicochemical changes in the accelerated aging process of rice. The introduction solidly establishes the context and relevance of the research, while the meticulously detailed methodology indicates a well-structured and well-founded study. The use of spectroscopic techniques combined with the chemometric analyzes outlined in the manuscript presents an innovative approach to guarantee and verify rice quality over time. The speeches and results of the study, particularly with regard to the effectiveness of spectral reflection in tracking considerable changes in contents such as amylose and rates of volume expansion and water absorption, are convincing and stand out as a breakthrough significant in the area. The robustness of the MLR models is highlighted by high R^2 values exceeding 0.80, decreasing notable predictive scores for the analyzed parameters. The conclusion highlights the relevance of the research, marking a significant evolution in the field of non-destructive assessment and prediction of rice quality during storage. The list of references highlights adequate support with recent and relevant literature, complementing a manuscript that is as innovative as it is well-founded. Additional references could enrich the article	
Minor REVISION comments **1. Is language/English quality of the article suitable for scholarly communications?**	It is highly recommended to have the paper grammar-checked and undergo stylistics and editing. ----------	----------
Optional/General comments	Please follow the journal guidelines. ----------	----------

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:	**Virgínia Mirtes de Alcântara Silva**
Department, University & Country	**Brasil**