

Review Form 3

Journal Name:	Journal of Scientific Research and Reports
Manuscript Number:	Ms_JSRR_123023
Title of the Manuscript:	Enhanced tobacco yield prediction using spatial information and exogenous variable-driven machine learning models
Type of the Article	Research 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:

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PART 1: Review Comments

Compulsory REVISION comments	Reviewer's comment	Author's Feedback <i>(Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)</i>
<p>Please write a few sentences regarding the importance of this manuscript for the scientific community. Why do you like (or dislike) this manuscript? A minimum of 3-4 sentences may be required for this part.</p>	<ul style="list-style-type: none"> This manuscript is significant to the scientific community as it addresses the critical area of yield forecasting, which is vital for improving agricultural productivity and ensuring food security. The manuscript is well-written and effectively explores several machine learning models, making it a valuable contribution to capture non-linear relationship. However, the manuscript could benefit from a more in-depth discussion of potential limitations and future research directions. 	
<p>Is the title of the article suitable? (If not please suggest an alternative title)</p>	<p>(Author's choice: Try to more simply the title) My choice title: "Sentinel 2 data based rapid tobacco yield prediction using machine learning" (If the authors wish to change the title, they can consider doing so; otherwise, it should remain as it is)</p>	
<p>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.</p>	<ul style="list-style-type: none"> In abstract, add full form of VIs (where applicable) and remove full form from later part of manuscript. 	
<p>Are subsections and structure of the manuscript appropriate?</p>	<p>Yes</p>	
<p>Please write a few sentences regarding the scientific correctness of this manuscript. Why do you think that this manuscript is scientifically robust and technically sound? A minimum of 3-4 sentences may be required for this part.</p>	<ul style="list-style-type: none"> To enhance the manuscript, consider adding a feature selection graph that illustrates the contribution of different features in the yield prediction process as identified by the RFR, ANN, XGBoost ML model (This graph would visually represent how each feature influences the prediction accuracy across these machine learning models). Add hyperparameters section of ML models, these were missing in manuscript (if possible) (you are already discussed in 3.8.1 section, but detailing is missing). Increase resolution Fig 1 image and increase the text size inside the map (difficult to visualized, use google earth pro to show the field). You can mention codes of JavaScript employed for derived VIs from GEE (if authors want). You can mention Pseudocode (Python script) of ML models (any one like ANN) used to build models (if authors want). <p>3.4.4 Support Vector Machines (SVM)</p> <ul style="list-style-type: none"> This heading change to "Support vector regression (SVR)", you already mention SVR in many places. 	
<p>Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.</p>	<ul style="list-style-type: none"> Add references to figures and formulas where applicable. Supporting references missing in result and discussion part. 	

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Minor REVISION comments Is the language/English quality of the article suitable for scholarly communications?	<ul style="list-style-type: none">To improve the quality of writing in the manuscript, consider enhancing sentence structure, checking grammar and syntax, and improving the flow. If the authors wish to make these improvements, they should proceed accordingly; otherwise, the manuscript will be acceptable in its current state.	
<u>Optional/General</u> comments	<ul style="list-style-type: none">Separate the result and discussion part (If journal allow).	

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?	<i>(If yes, Kindly please write down the ethical issues here in details)</i>	

Reviewer Details:

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