

Review Form 3

Journal Name:	Archives of Current Research International
Manuscript Number:	Ms_ACRI_124042
Title of the Manuscript:	Modeling cereal yield forecasting using Machine learning techniques for Shri Ganganagar, Rajasthan, India
Type of the Article	Original 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 (Please correct the manuscript and highlight that part in the manuscript. It is mandatory that authors should write his/her feedback here)
<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>	<p>The authors attempted to forecast rice and wheat yield for the Shri Ganganagar district of Rajasthan using multiple linear regression, principal component regression, ridge regression, neural network and some latest machine learning models like elastic net, K-nearest neighbour and random forest. In addition, comparison of model adequacy and performance in predicting cereal yield have been done. The findings of the manuscript will help researchers working in this area in selecting cutting edge tools.</p>	
<p>Is the title of the article suitable? (If not please suggest an alternative title)</p>	<p>No The title may be "Modelling and Performance Evaluation of Machine learning Techniques in Forecasting Cereal Yield for Shri Ganganagar Region, Rajasthan, India"</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>	<p>Yes, it is comprehensive but the findings presented in abstract are general statements. It need to be quantified in terms of R², RMSE and MAPE to make the study visible and to help the readers in selecting suitable model.</p>	
<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>	<p>The data analysis looks good but lacking in some aspects like used statistical packages, fine-tuned hyperparameters in machine learning models. Based on results, the manuscript is scientifically robust as well as technically sound because K-NN has ability to capture non-linear relationship and thus it performed well in comparison to other models</p>	
<p>Are the references sufficient and recent? If you have suggestions of additional references, please mention them in the review form.</p>	<p>Yes, But some references like (7, 8, 12, 13, 21, 22, 24, 32) not found in running text. It may be checked and verified.</p>	
<p>Minor REVISION comments</p> <p>Is the language/English quality of the article suitable for scholarly communications?</p>	<p>Yes, minor revision required</p>	
<p>Optional/General comments</p>	<ol style="list-style-type: none"> 1. The findings presented in abstract are general statements. It need to be quantified in terms of R², RMSE and MAPE to make the study visible. 2. The name of statistical packages used in analysis may be given. 3. The normality and independence assumptions for MLR may be tested and presented. This will support the application of machine learning model. 4. There should be discussions on hyper parakeets used in the ML models, which is lacking in the entire manuscript. What was number of neurons in input, hidden layer and output layer? What is learning rate? All these need to be discussed. Also, k-value in K-NN. 5. The prediction of best performing model can be presented for rice and wheat. 6. Some listed references not found in running text like (7, 8, 12, 13, 21, 22, 24 and 32). It may be added or removed. 7. The author may refer track change mode of manuscript for query/improvement. 	

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PART 2:

	Reviewer's comment	Author's comment <i>(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)</i>
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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