Review of: "Adoption of Machine Learning Methods for Crop Yield Prediction-based Smart Agriculture and Sustainable Growth of Crop Yield Production – Case Study in Jordan"

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Potential competing interests: No potential competing interests to declare.

Dear authors,

Please accept the following recommendations as a way to improve the quality of your articles.

1. The abstract should be concise but comprehensive. Shorten the abstract and ensure it clearly highlights the methodology, key findings, and quantitative results. It should also emphasize the novelty and significance of your research, briefly mentioning the specific machine learning (ML) methods used and their performance. For example, include a brief mention of accuracy or other performance metrics (e.g., R-squared, MAE) and specific quantitative findings about the crop yield predictions.

2. Ensure the Introduction section explicitly highlights the unique contribution of your study. Describe how your proposed approach (ML methods for crop yield prediction) is different from existing work in this domain, particularly in the context of Jordan's agricultural sector. Focus on the novelty of integrating multiple ML models. For instance, state whether the use of a particular combination of ML algorithms, data preprocessing techniques, or environmental factors is novel in your study compared to previous work.

3. In the methods section, explain the computational environment used for modeling (e.g., hardware, software, and libraries). Mention any specific tools (such as Python or R packages) used for different machine learning models. For example, specify the version of machine learning libraries like TensorFlow, Scikit-learn, or any specialized tools that were critical to the model development.

4. Provide a detailed explanation of how your data was split into training and testing subsets. Mention the number of samples, the types of variables used, and how these variables were chosen. A table summarizing the training and testing sets would be beneficial. For instance, if the dataset contains X samples, state how many were used for training (e.g., 70%) and testing (e.g., 30%), along with how you ensured a balanced and representative split.

5. I think you are mixing classification and regression tasks; split the models and ensure appropriate evaluation techniques for each. Use classification metrics (e.g., accuracy, precision) for classification tasks and regression metrics (e.g., RMSE, MSE) for regression tasks; you can create separate sections in the results for each model type, where you evaluate their performance based on the relevant metric for the problem (classification or regression).