'Random Forest' Machine Learning Algorithm for Crop Yield Prediction

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Abstract: *With agriculture accounting for about 26% of India's GDP and providing work for 61% of the population, agriculture has been essential to the country's economic expansion. The rising suicide rates among farmers serve as the driving force for this project. The nation saw almost 1875 suicide cases in 2022, which may have been caused by poor crop yields or an inability to repay loans from the banking or private sectors. The field of agriculture is now seriously threatened by changes in the climate and other environmental factors. For this problem to be solved effectively and practically, machine learning is a crucial strategy. The proposed work uses a machine to estimate crop output utilizing data that has already been made accessible, including weather, soil, rainfall factors, and historical crop yield*

Keywords: Crop_ yield prediction; logistic regression; naive bayes; random forest; weather; Agriculture; Machine Learning; Supervised Algorithms; Data Mining

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