Crop Yield Prediction of Indian Agriculture using Machine Learning Algorithms

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Abstract: *Today approximately 40% of the living area in the world is conquered by crop agriculture. Agriculture is the backbone of our economy. The practice of producing plants and livestock is known as agriculture. The history of agriculture began a several thousand years ago and is still being practiced at a wide range. Machine Learning is one of the major tool which supports crop yield prediction which may include to decide on what crop to be grown during a particular season of the crops. We can predict the yield of the crop using the machine learning concept Classifiers such as KNN (Kernel - Nearest Neighbour), SVM (Support Vector Machine), Logistic Regression, Naïve Baye's Theorem, Random Forest Classifier. This paper predicts the crop yield using KNN Algorithm. According to the analysis, the most considered factors in our prediction are : Production of the crop, Area of the crop yield produced. The prediction made by machine learning algorithms will help the farmers to come to a decision which crop to grow in their agricultural land to induce the most yield. This helps to bridge the gap between technology and agriculture sector. Consumers would suffer greatly if agriculture were to cease, as their diets would become unbalanced. Food imports from other nations would be necessary as our nation would have to rely on them for its food supply.*

Keywords: Agriculture, Analysis, Crop yield prediction, KNN Algorithm, Machine Learning, Agriculture Sector.

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