

A Survey Paper for Crop Prediction for Farmers

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Abstract— Farmers no longer need to drive long distances to acquire agricultural information. Making the lives of farmers simpler is a necessary in one of the world's most populated countries, with agriculture playing such an important role as a source of revenue. India is the world's leading producer (25 percent of global output), user (27 percent of global consumption), and importer of pulses (14 percent). Agriculture provides a large amount of our country's economy, as seen by these statistics. As a consequence, AGRODEC serves as a guide for farmers, educating them on which crops would benefit them the most at different times of the year and at different soil pH levels. This program not only tells the farmer about the crop to grow, but it also helps him increase his revenue by suggesting the price at which the crop may be sold for a profit. Using AGRODEC as a tool, farmers may plant a new kind of crop at different times of the year, potentially increasing their profit margins.

I. INTRODUCTION

AGRODEC is a novel way of teaching farmers that saves time and money. Creating a user interface to help farmers choose the best solution for their field. The proposed method for our project, entitled "AGRODEC- Agriculture Based Decisions," will educate farmers about crops.

II. CROP PREDICTION

A. Selecting a Template (Heading 2)

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III. DATA VISUALIZATION

In today's environment, data visualisation is a highly powerful tool. Data visualisation tools make it easy to examine and comprehend trends, outliers, and patterns in data by employing visual components like charts, graphs, and maps. Assisting decision-makers in comprehending how business data is evaluated in order to make business choices. Using a visual representation of enormous volumes of data to offer a summary of previously unknown patterns in the data, exposing insights and the story behind the data in order to develop a business objective. By making sense of your data, you may visualise company data to manage growth and transform patterns into business plans.

Farmers will be able to focus on the most important areas of development by using Data Visualization. They will have access to the records, which will provide them with a visual representation of their field work. Farmers can track their losses and profit sectors in the fields and work on them using visualization.

IV. LITERATURE SURVEY

Author Name	Method	Observation	
Girish L, Gangadhar S, Bharath T R, Balaji K S, Abhishek K T[1]	The prediction of rainfall and crop yield using machine learning method such as SVM model, decision tree, KNN, etc.	It concludes that SVM has the highest efficiency for rainfall prediction. They used various other machine learning model for the predictions.	
Rahul Ashutosh	Katarya, Raturi,	Various algorithms	Their suggested

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Abhinav Mehndiratta, Abhinav Thapper[2]	such as KNN, Naive Bayes, Random Forest are compared.	work, titled "Impact of Machine Learning Techniques in Precision Agriculture," is more particularly a "crop recommender system" for a certain state. Random forest gave Highest accuracy 79%.
Doshi, Aastha and Anuradha Chopade[3]	Random Forest Regression and Random Forest Classifier	Rainfall, crop production, soil, and weather were all taken into account, and forecasts were made using an ensemble learning algorithm which would result in a higher yield while using less resources. Random Forest Regressor for crop production and rainfall prediction, and Random Forest Classifier for soil prediction.
Ramesh Medar, Vijay S. Rajpurohit, Shweta[5]	The 2 main algorithms used for the work "Crop Yield Prediction using Machine Learning Techniques" are Naive Bayes and k-Nearest Neighbor.	On a Java program, the planned work was to anticipate the agricultural yield rate. There are three elements to this application. The first is dataset management; the second is dataset testing; and the third is

		dataset analysis. The accuracy of this method was 91.11 percent.
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V. COMMON PROPOSED SYSTEM

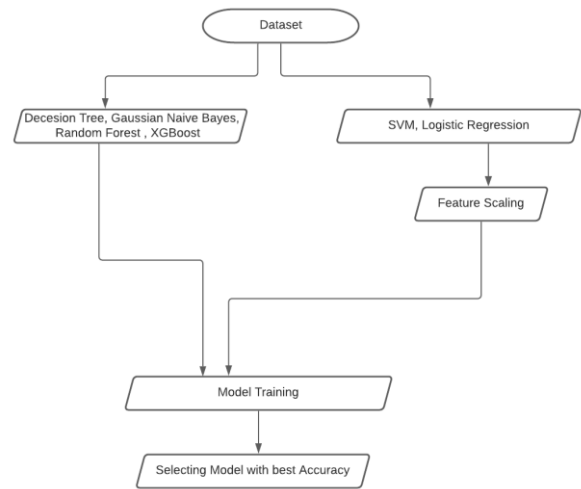


Fig 1. 1Crop Prediction Flowchart

The crop recommendation dataset from Kaggle is used, and it contains 22 unique crops that are classified based on specific input criteria. As indicated in figure, this dataset is subsequently trained using a variety of machine learning methods. Finally, the algorithm with the highest accuracy is chosen for crop prediction.

VI. CONCLUSION

The Literature Survey Paper investigates many strategies for obtaining exact findings in crop prediction UTILIZING particular field and environmental characteristics. Farmers may profit from technology if they UTILIZE it as a plan to help them grow the correct crop at the right time. These improvements have the potential to make a significant difference in the lives of farmers who previously had little prospect of surviving.

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