

Crop Recommendation System using Machine Learning

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Abstract: Agriculture plays a vital role in India's economy, yet Indian farmers often struggle with selecting the most suitable crops for their specific soil conditions, leading to decreased productivity. Precision agriculture offers a solution by leveraging soil data, crop yield statistics, and site-specific parameters to recommend optimal crops. This project aims to develop an intelligent system designed to assist Indian farmers in making well-informed decisions regarding crop selection, considering factors like the optimal sowing season, geographical location and soil characteristics. Additionally, the system will provide yield predictions for the recommended crops, enhancing productivity. The proposed Crop Recommendation System employs a hybrid model that considers various input parameters to suggest crops tailored to farmers' needs. Accurate yield prediction not only influences national and international economies but also plays a crucial role in food management and security.

Keywords: Precision agriculture, Yield prediction, Productivity

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