WELCOME

Intelligent Crop Recommendation System Using ML

Under the Guidance Of

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Content :

Introduction :

We propose an Intelligent Crop Recommendation system using Machine Learning that predicts crop suitability by factoring all relevant data such as temperature, rainfall, location, and soil condition. This system is primarily concerned with performing AgroConsultant's principal role, which is to provide crop recommendations to farmers.

Objective :

• To build a robust model to give correct and accurate prediction of crop sustainability in a given state for the particular soil type and climatic conditions.

• Provide recommendation of the best suitable crops in the area so that the farmer does not incur any losses

• Provide profit analysis of various crops based on previous years data

Requirments :

For the purposes of this project we have used three popular algorithms:

Linear regression, Logistic regression and Neural network. All the algorithms are based on supervised learning. Our overall system is divided
into three modules:

- Profit analysis
- Crop recommender
- Crop Sustainability predictor

Inputs :

A farmer's decision about which crop to grow is generally clouded by his intuition and other irrelevant factors like making instant profits, lack of awareness about market demand, overestimating a soil's potential to support a particular crop, and so on. A very misguided decision on the part of the farmer could place a significant strain on his family's financial condition. In a country like India, where agriculture and related sector contributes to approximately 20.4 per cent of its Gross Value Added (GVA) [2], such an erroneous judgment would have negative implications on not just the farmer's family, but the entire economy of a region. The need of the hour is to design a system that could provide predictive insights to the Indian farmers, thereby helping them make an informed decision about which crop to grow. With this in mind, we propose a system, an intelligent system that would consider environmental parameters (temperature, rainfall, geographical location in terms of state) and soil characteristics (pH value, soil type and nutrients concentration) before recommending the most suitable crop to the user.

Problem Statement :

Failure of farmers to decide on the best suited crop for his land using traditional and nonscientific methods is a serious issue for a country where approximately 50 percent of the population is involved in farming. Both availability and accessibility of correct and up to date information hinders potential researchers from working on developing country case studies. With resources within our reach we have proposed a system which can address this problem by providing predictive insights on crop sustainability and recommendations based on machine learning models trained considering essential environmental and economic parameters.

Future Scope :

An application or a Website holding all the parameters of Crop & Fertilizer Recommendation along with Crop Disease Identification Systems would be more helpful for the farmer to gather all information at a single site

A soil analysis and recommendation system is used to determine the level of nutrients found in a soil sample.

this system evaluates crop content and soil fertility status and plan a nutrient management program. Finally, this system gives recommendations of crop required to stay more profitable in agriculture

Thank you