20IT928 PRIEE PROJECT

"FERTILISER RECOMMENDATION SYSTEM FOR DISEASE PREDICTION"

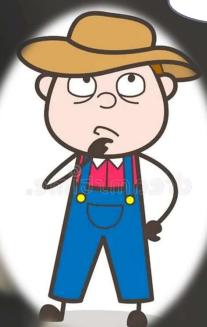
NUTRIGUIDE-AI

TEAM INTRODUCTION

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PROBLEM STATEMENT:

According to a study by the Associated Chambers of Commerce and Industry of India, annual crop losses due to pests amount to Rs. 50,000 crore



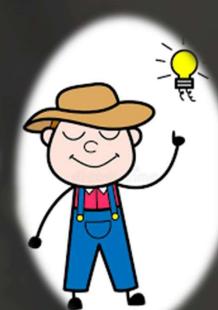
- Farmers are generally unaware about the organic fertilizers or standard fertilizers to use as per soil requirements.
- Due to inadequate and imbalanced fertilization, soil degradation is occurring, which leads to nutrient mining and the development of second-generation problems in nutrient management.



To solve the problem by proposing a recommendation system through an ensemble model with majority voting technique crop for the site specific parameters with high accuracy and efficiency.

Machine learning techniques are used to identify the diseases and suggest appropriate fertilizer that can be taken for those diseases by recommending organic fertilizer on the basis of N, P, K values and crop.

So we planned to design a web application for achieving above objectives.



ABSTRACT

Food security and sustainable farming practices depend heavily on agricultural productivity and crop health. In recent years, advancements in artificial intelligence (AI) have revolutionized the agricultural sector by enabling sophisticated prediction models for fertilizer recommendation and disease detection. This paper provides an overview of AI-driven methods for recommending fertilizers. AI methods use real-time and historical data on crop types, weather, and soil characteristics to make recommendations for fertilizers. To analyze the intricate connections between input features and nutrient needs, several machine learning algorithms like linear regression and random forest methods are used in this system, which enable accurate comparison, assist farmers in suggesting fertilizer, and detect plant disease. The outcome of the learning process is used by farmers for corrective measures for yield optimization.

