FERTILIZERS RECOMMENDATION SYSTEM FOR DISEASE PREDICTION

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LITRATURE SURVEY

BASE PAPER

KRISHI RAKSHAN - A Machine Learning based New Recommendation_System to the Farmer-D. N. V. S. L. S. Indira;M. Sobhana;A. H. L. Swaroop;V Phani Kumar 2022 6th International Conference on Intelligent Computing and Control Systems (ICICCS)

Totally 54% of India's land area is deemed arable, making it the world's largest agrarian economy. Soil infertility owing to over fertilization, as well as a lack of access and awareness of contemporary agricultural practices, are the different factors that contribute to low agricultural production. The main purpose of this research work is to develop a machine learning-based recommendation system to increase agricultural productivity. A variety of datasets were used in this study to design and develop advanced models to estimate the crop, recommend fertiliser, and identify plant disease. An algorithm called MobileNet uses an image of a leaf to identify the disease present in a plant. The XGBoost model predicts a suitable crop based on the local soil nutrients and rainfall. Random Forest [RF] model was used to propose fertilizer and develop ideas for improving soil fertility depending on nutrients present in the soil. When compared to other approaches, the proposed model delivers a high level of accuracy. Moreover, this article suggests the farmer to increase the crop yield by entering the input values and local soil conditions, wherein the model suggests recommended crop for that soil with an accuracy of 99%.

REFERENCE PAPER

1.Neural Network Based Fertilizers Recommendation _System For Disorder Classification And Prediction In Petal Images

N. Valarmathi;M. Vengateshwaran;Kalaimani Shanmugam;R. Sudha
2021 2nd International Conference on Smart Electronics and Communication (ICOSEC)

The point of farming isn't just to take care of the ever-developing populace but at the same time is a basic wellspring of vitality and an answer for the emergency of an Earth-wide temperature boost. Determination of plant ailment is basic

for early finding and control of it. The unaided eye method is generally utilized for the conclusion of ailments. This methodology requires experts who can recognize varieties in leaf shading. Ordinarily a similar malady is characterized by a few specialists as a different sickness. This arrangement is exorbitant, in light of the fact that it requires nonstop expert management. Makers need to follow their yields and perceive the primary signs at modest costs so as to abstain from spreading even a plant malady and spare a lot of income. Recruiting qualified ranchers can't be reasonable especially in far off geologically detached zones.

2.Healthy Harvest: Crop Prediction And DiseaseDetection System

Sambhav Bhansali;Punit Shah;Jinay Shah;Priyal Vyas;Poonam Thakre

2022 IEEE 7th International conference for Convergence in Technology (I2CT)

Economy of India highly depends on agriculture. Still traditional ways of recommendations are used for agriculture. Currently, farmers use traditional ways of approximations for amount of fertilizer used and the type of crop to be sown. Agriculture extremely depends on the type of soil and climatic condition of the region. Therefore, it becomes vital to create advancement in this field. With the help of Machine Learning and Deep Learning Techniques we will create a Web-App which will be one-stop solutions for information regarding the agriculture. Crop and fertilizer recommendation system will help the farmers in increasing their yield production. We are going to take the soil parameters along with the weathers API to figure out the most suitable crop for that region. Using the decision tree and navies bayes algorithm we will make the recommendation model which will use the N-K-P, Ph. value and rainfall as the parameters for training. Basis on the crop and region of farming we will recommend the fertilizer and its uses to boost the yield productivity for farmers. Sometimes due to unwanted excess of rainfall or the pest attack can cause disease to crops. We will use the image classification technique where the user can upload the picture of the affected plant/crop and the system will figure out the type of disease which will be done using Support Vector Machine (SVM) or using the neural network techniques. And this disease detection will suggest that how that plant/crop can be cure or prevent. The aim

is to make a common system for all the features and provide the results with the best accuracy for all the crops over most of the regions all over the India. Also, the price and news section will keep the farmers updated with daily market prices and government schemes and policies related to the agriculture and farming.

PROBLEM STATEMENT

Agriculture is the most important sector in today's life. Most of the plants are affected by a wide variety of bacterial and fungal diseases. In agricultural aspects, if the plant is affected by leaf disease then it reduces the growth and productiveness. Generally, the plant diseases are caused by the abnormal physiological functionalities of plants.