

# **FERTILIZERS RECOMMENDATION SYSTEM FOR DISEASE PREDICTION**

## **LITERATURE SURVEY**

<b>TITLE OF THE PAPER</b>	<b>AUTHOR</b>	<b>DESCRIPTION</b>	<b>MERITS AND DEMERITS</b>
Soil Based Fertilizer Recommendation System for Crop Disease Prediction System	Dr.P.Pandi Selvi  P. Poornima	Agriculture is the main aspect for the economic development of a country. But in recent days, the field was going down due to various natural calamities. The proposed system was organized in such a way, to analyze the soil type, diseases in the leaves and finally to recommend the appropriate fertilizer to the farmers, that may be of great help to them. Smart analysis and Comprehensive prediction model in agriculture helps the farmer to yield right crop at the right time.	The main benefits of the proposed system are as follows: Yield right crop at the right time, Balancing the crop production, control plant disease, Economic growth, and planning to reduce the crop scarcity.

<p>Agro-Farm Care – Crop, Fertilizer &amp; Disease Prediction (Web App)</p>	<p>Sanidhya Purohit</p> <p>Deep Sanghani</p> <p>Naman Senjaliya</p> <p>Prof. Anuradha Kapoor</p>	<p>Data Mining is a rising studies area in crop yield analysis. Yield prediction is a completely essential problem in agriculture. Any farmer is interested in knowing how much yield he is about to expect also, it will end-user-helpful to farmers for indicting which fertilizers to be used as well as knowing the crop diseases all at one place. The project comes with a model to be precise.</p>	<p>The model is accurate in predicting crop, fertilizers, Crop disease and deliver the end-user with proper recommendations about the required fertilizer ratio based on atmospheric and soil parameters of the land which enhance to increase the crop yield and increase farmer revenue.</p>
<p>Design and Implementation of Fertilizer Recommendation System for Farmers</p>	<p>Kanaga Subra RAJA Subramanian</p>	<p>This paper introduces a compelling technique for estimation of nutrient dimension in soil and suggestion for appropriate fertilizer. The proposed methodologies comprise of four stages: soil analysis, data pre-processing, data analysis and Recommendation. The soil sample is analyzed using an IoT based device utilizing NPK sensor with two electrodes are set to calculate collect the NPK ratio of the soil nutrient and for pre-processing, the data gathered from sensors</p>	<p>This venture is extremely valuable to farmer to pick the right fertilizer toward the start of product cycle and amplify the yield.</p>

		are figured into correct dataset and machine learning algorithm is utilized to recognize the reasonable fertilizer	
Fertilizers Recommendation System For Disease Prediction In Tree Leave	R. Neela  P. Nithya	Finding the leaf disease is an important role of agriculture preservation. After pre-processing using a median filter, segmentation is done by Guided Active Contour method and finally, the leaf disease is identified by using Support Vector Machine. The disease-based similarity measure is used for fertilizer recommendation.	The various segmentation algorithms can be implemented to improve accuracy. The proposed algorithm can be modified further to identify the disease that affects the various plant organs such as stems and fruits.
Leaf Disease Detection using Deep Learning Algorithm	Kishori Patil  Santosh Chobe	For disease detection and classification, image processing tools and the machine learning mechanism are proposed. Crop disease will be detected through various stages of image processing image acquisition, pre-processing of image, image feature extraction feature classification, disease prediction and fertilizer recommendation	The analysis of the different diseases that are present on the leaves can be effectively detected in the early stage before it will damage the whole plant. Here the technique presented can able to detect the disease more accurately, we can say that, we can archive good

		<p>detection of disease is important because it will may help farmers to provide proper solution to prevent the disease.</p>	<p>productivity by preventing the different diseases which are present on the leaves of plant using weather dataset and image processing. The usage of classification and feature extraction processes has enhanced the performance of the system which provides better results.</p>
<p>Application of Intelligent Recommendation for Agricultural Information: A Systematic Literature Review</p>	<p>CAIXIA SONG</p> <p>HAOYU DONG</p>	<p>This article aims to provide a comprehensive review of recent research efforts on application of agricultural information based on recommender system. Firstly, the method of content analysis used in this article to sort out the papers is introduced. Secondly, the background recommender systems and the key technologies are presented. Thirdly the applications of recommender systems/technologies for agricultural information are described in detail.</p>	<p>This paper synthesizes the relevant algorithms and their corresponding advantages and disadvantages, and lists other novel and effective recommendation algorithms, so that the reader can learn about the common algorithm evaluation criteria and the practical applications of the relevant algorithms in agriculture</p>

Application of machine learning in detection of blast disease in South Indian rice crops	S. Ramesh D. Vydeki	This paper proposes rice blast disease detection mechanism using Machine learning algorithm, to identify the disease in the early stage of the crop cultivation. The proposed method would find the blast disease and reduce the crop loss and hence increase the rice agriculture production in an effective manner. The images of the paddy field are captured and eight features are extracted to distinguish the healthy and the disease affected leaves. The proposed machine learning based classification methodology includes KNN and ANN. The performance of these two classification techniques is using an appropriate confusion matrix.	The simulation results show that KNN based classification method provides an accuracy of 85% for the blast affected leaf images and 86% for the normal leaf images. The accuracy is improved to 99% and 100% respectively for the ANN based classification mechanisms.
CROFED - Crop and Fertilizer Recommendation and Disease diagnosis system using Machine Learning and Internet of Things.	Taranjeet Singh Saurabh Anand Anmol Sehgal	CROFED will help the farmers to deal with these problems by providing following aids: Crop Recommendation system, Fertilizer suggestion system, Crop Disease	This technology will assist farmers in determining soil fertility and recommending which crops to grow. It also recommends the

	<p>Siddhesh Mahajan</p> <p>Prof.Pranoti Kavimandan</p>	<p>Detection System. We will develop an IOT device that will examine the quality of soil and can also detect crop diseases on scanning the leaves of the crops. Soil testing is significant since it allows for the determination of soil fertility and hence crop prediction. We have proposed a system which will have a device which gives pH value and we will estimate Nitrogen (N), Phosphorus (P) and Potassium (K) from the pH of that soil. We are using Machine Learning classification algorithm to predict suitable crops based on the values we get from our device and we will also provide suitable fertilizers required for that land.</p>	<p>fertilizer that should be used to boost productivity. It detects many diseases in crops and recommends appropriate treatments to help them recover. It gives farmers the vital information about farming techniques to assist them enhance crop productivity</p>
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