

# **FERTILIZERS RECOMMENDATION SYSTEM FOR DISEASE PREDICTION**

**TITLE :** An Experimental Analysis of Fertilizers Recommendation System For Disease Prediction

**AUTHOR:** R.Neela, P.Nithya

**YEAR:**2017

## **ABSTRACT:**

Agriculture is the main aspect of country development. Many people lead their life from agriculture field, which gives fully related to agricultural products. Plant disease, especially on leaves, is one of the major factors of reductions in both quality and quantity of the food crops. In agricultural aspects, if the plant is affected by leaf disease then it reduces the growth of the agricultural level. 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.

**TITLE:** An Experimental Analysis of Fertilizers Recommendation System For Disease Prediction

**AUTHOR:**Mayuri Pawar,Geetha Chillarge

**YEAR:**2018

**ABSTRACT:**India is agricultural land. India ranks second worldwide in agriculture output, but GDP share is declining. There are many factors contribute for declining agriculture GDP which are inadequate irrigation, inadequate power supply, changing environmental conditions, conventional agricultural method etc. In this paper, the proposed system can help farmers by making them aware about their soil conditions. Farmers can maximize crops yield by knowing proportion of nutrients present in the soil. Soil toxicity affects the soil nutrients which indirectly affects crops health. The proposed system predicts the level of toxicity present in the soil and makes farmer aware about it. Many farmers are depending on rainfall which is the one of the factor for poor growth and decreases crops yield. Thus the proposed system recommends the farmer about the crop, fertility of soil, level of toxicity and water supply. For this recommendation system, sensor's accuracy is very important as well as classification algorithm. For classification, decision tree J48 algorithm is used which is simple to implement and having more accuracy as compared with other classification algorithms. Issue of power supply can be overcome by using solar panel system.

**TITLE:** An Experimental Analysis of Fertilizers Recommendation System For Disease Prediction

**AUTHOR:**Dr.P.Pandi Selvi,P.Poornima

**YEAR:**2021

**ABSTRACT:**Agriculture is the main aspect for the economic development of a country. Agriculture is the heart and life of most Indians. But in recent days, the field was going down due to various natural calamities. In order to overcome the problem, various issues in this field need to be addressed. The soil type, fertilizer recommendation, diseases in plants and leaves. All these features need to be considered. Our 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. Plant disease, especially on leaves, is one of the major factors that reduce the yield in both quality and quantity of the food crops. Finding the leaf disease is an important role to preserve agriculture. 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. Hence to Detect and recognize the plant diseases and to recommend fertilizer it is necessary to provide symptoms in identifying the disease at its earliest. Hence the authors proposed and implemented new fertilizers Recommendation System for crop disease prediction

**TITLE:** An Experimental Analysis of Fertilizers Recommendation System For Disease Prediction

**AUTHOR:** Ibrahim, Sherif. M

**YEAR:** 2021

**ABSTRACT:** Fertilizer nitrogen (N) management in any region following standard general recommendations discount the fact that crop response to N varies between sites and seasons. To devise field-specific N management in wheat at jointing stage (Feekes 6 growth stage) using atLeaf meter and leaf colour chart (LCC), eight field experiments were conducted in three wheat seasons during 2017–2020 in the West Delta of Egypt. In the first two seasons, four experiments consisted of treatments with a range of fertilizer N application levels from 0 to 320 kg N ha<sup>-1</sup>. Monitoring atLeaf and LCC measurements at Feekes 6 growth stage in plots with different yield potentials allowed formulation of different criteria to apply field-specific and crop need-based fertilizer N doses. In the four experiments conducted in the third season in 2019/20, different field-specific N management strategies formulated in 2017/18 and 2018/19 wheat seasons were evaluated. In the atLeaf-based fertilizer N management experiment, prescriptive application of 40 kg N ha<sup>-1</sup> at 10 days after seeding (DAS) and 60 kg N ha<sup>-1</sup> at 30 DAS followed by application of an adjustable dose at Feekes 6 stage computed by multiplying the difference of atLeaf measurements of the test plot and the N-sufficient plot with 42.25 (as derived from the functional model developed in this study), resulted in grain yield similar or higher to that obtained by following the standard treatment. The LCC-based strategy to apply field-specific fertilizer N at Feekes 6 stage consisted of applying 150, 100 or 0 kg N ha<sup>-1</sup> based on LCC shade equal to or less than 4, between 4 and 5 or equal to or more than 5, respectively. Both atLeaf- and LCC-based fertilizer N management strategies not only recorded the highest grain yield levels but also resulted in higher use efficiency with 57–60 kg N ha<sup>-1</sup> in average less fertilizer use than the standard treatment.

**TITLE:** An Experimental Analysis of Fertilizers Recommendation System For Disease Prediction

**AUTHOR:** Mr. Santosh Mahagaonkar

**YEAR:**2019

**ABSTRACT:**Machine learning is an emerging research field in crop yield analysis. Yield prediction is a very important issue in agriculture. Any farmer is interested in knowing how much yield he is about to expect. In the past, yield prediction was performed by considering farmer's experience on particular field and crop. The yield prediction is a major issue that remains to be solved based on available data. Machine learning techniques are the better choice for this purpose. Different Machine learning techniques are used and evaluated in agriculture for estimating the future year's crop production. This paper proposes and implements a system to predict crop yield from previous data. This is achieved by applying machine learning algorithms like Support Vector Machine and Random Forest on agriculture data and recommends fertilizer suitable for every particular crop. The paper focuses on creation of a prediction model which may be used for future prediction of crop yield. It presents a brief analysis of crop yield prediction using machine learning techniques

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**AUTHOR:** Nawabshah, Sindh, Pakistan

**YEAR:**2021

**ABSTRACT:***Farming is one of the most fundamental and generally rehearsed work in Pakistan and it plays an imperative part in fostering the country. In Pakistan, the most part of the land is used for agriculture cultivation to meet the desires of nearby people and export want as properly. Therefore, the need of increasing crop production is the significant challenge for farmers. Crop cultivation anywhere in the world depends on the climate so called seasons and soil properties, however, the enhancing the production of crops depend on various factors like mainly on temperature. In order to address the issue of increasing crop production for Pakistan, a crop recommendation system is proposed in this work. In this work, idea of ideal harvest prior to planting it, it would be of extraordinary assistance to the farmers and others required to settle on fitting choices on upgrading the creation of yields for neighborhood utilization needs and may prompt the capacity and expanded fare choice for business. Our framework utilized Machine Learning procedures with the end goal that it proposes the appropriate corps dependent on the temperature. This framework subsequently diminishes the monetary misfortunes looked by the farmers brought about by establishing the ominous harvests and furthermore it gives the information on the occasional characterization of yields what harvest is reasonable for which season. It is concluded that proposed algorithm has an average accuracy of 90% on the given dataset. The achieved accuracy is more in comparison to existing work.*

**TITLE:** An Experimental Analysis of Fertilizers Recommendation System For Disease Prediction

**AUTHOR:** Praveen Kumar. D, Muthuvel. R

**YEAR:**2022

**ABSTRACT:** Tamil Nadu, as a coastal state, has agricultural unpredictability, which reduces productivity. More productivity should be possible with more people and land, but it is not possible. Farmers used to employ word-of-mouth, but due to climate circumstances, they can no longer do so. Agricultural elements and parameters are used to provide data that can be used to learn more about Agri-facts. Some highlights in agriculture are driven by the growth of the IT world. Sciences to help farmers with good agricultural information. Intelligence of applying modern technological methods in the field of agriculture is desirable in this current scenario. Machine Learning Techniques develops a well-defined model with the data and helps us to attain predictions. Agricultural issues like crop prediction, rotation, water requirement, fertilizer requirement and protection can be solved. Due to the environment's fluctuating climatic elements, an efficient technique to promote crop cultivation and assist farmers in their production and management is required. This could aid aspiring agriculturalists in improving their farming. With the use of data mining, a farmer can receive a system of recommendations to assist them in crop production. Crops are recommended depending on climatic parameters and quantity to apply such an approach. Data Analytics gives a means to evolve valuable extraction from agriculture database. Crop Dataset has been evaluated, and crop recommendations based on productivity and season have been made