FERTILIZERS RECOMMENDATION SYSTEM FOR DISEASE PREDICTION

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PROPOSED SOLUTION

An automated system is introduced to identify different diseases on plants by checking the symptoms shown on the leaves of the plant. Deep learning techniques are used to identify the diseases and suggest the precautions that can be taken for those diseases.

NOVELTY

The major agricultural products in India are rice, wheat, pulses, and spices. As our population is increasing rapidly the demand for agriculture products also increasing alarmingly. A huge amount of data are incremented from various field of agriculture. Analysis of this data helps in predicting the crop yield, analysing soil quality, predicting disease in a plant, and how meteorological factor affects crop productivity. Crop protection plays a vital role in maintaining agriculture product. Pathogen, pest, weed, and animals are responsible for the productivity loss in agriculture product. Machine learning techniques like Random Forest, Bayesian Network, Decision Tree, Support Vector Machine etc. help in automatic detection of plant disease from visual symptoms in the plant. A survey of different existing machine learning techniques used for plant disease prediction was presented in this paper. Automatic detection of disease in plant helps in early diagnosis and prevention of disease which leads to an increase in agriculture productivity.

SOCIAL IMPACT

In the project Fertilizer Recommendation System For Disease Prediction using Artificial Intelligence this may be useful for farmers because the project helps us to know about what type of disease were attacked in our plants how to recover using fertilizers are the main concept. This may help people and farmers while using our project

BUSINESS MODEL

Disease detection preliminary leaf image processing, including its background, incurable part, affected part, helps in identifying pests, recognizing nutritional deficiencies, and much more. Increasing demand for agricultural production owing to the growing population. Widening information management systems as well as new advanced technologies adoption for improving crop productivity. Increasing crop productivity via deep learning techniques integration. Rising initiatives by worldwide governments supporting renovated agricultural techniques adoption.

SCALABILITY

Agricultural systems are enormously variable in space and time. New and developing artificial intelligence (AI)-based tools can leverage site-based science and big data to help farmers and land managers make site-specific decisions. These tools are improving information about soils and vegetation that forms the basis for investments in management actions, provides early warning of pest and disease outbreaks, and facilitates the selection of sustainable cropland management practices. Continued progress with AI will require more observational data across a wide range of agricultural settings, over long time periods.