

Preface

This project report will present the work on topic Crop Health Advisory System using Machine Learning. We have done research and development on the same topic which will provide farmers a recommendation system which will recommend the crop name based on climatic conditions and it will also recommend a remedy for any crop disease. Major aim of this recommendation system is to help farmers to make informed decisions related to crop selection and which fertilizer to use. It will basically try to improve or enhance the agricultural productivity.

The main objective of this project was to create a reliable and effective system that makes use of many data, including nitrogen (N), phosphorous (P), potassium (K), temperature, humidity, pH, rainfall values, as well as information on crops, such as crop name, scientific name, and disease name. The system analyses these factors and then offers specific recommendations to farmers in order to maximize crop output and reduce any possible crop health concerns.

In this report we have discussed the different techniques, methods, and formulas used to create the Crop Health Advisory System. The experimental setup, data collecting procedure, and preprocessing methods used to develop the machine learning models are also presented. The report also emphasizes the assessment measures used to rate the system's performance and confirm its efficacy.

So, by this research we have tried to design a system which will be very easy to use for every person and provide appropriate information to the person who is seeking advice related to crop health and to develop a system which will reach to large number of people or farming community so that everyone can get easy quick and sustainable solution and to literate farmers regarding their day-to-day agricultural problems like crop diseases, remedies to overcome those crop diseases and how to deal with uncertain climatic conditions.