

★INTRODUCTION

disease-specific fertiliser recommendation system

A straightforward ML and DL-based website called Prediction suggests the best crops to produce, the fertilisers to use, and the diseases your crops are likely to contract.

★ PROBLEM STATEMENT

The agriculture sector is vitally important to India's economic, social, and employment development. Nearly 48% of the people in India relies on the agriculture sector for their livelihood. According to the 2019–2020 Economic Survey, the median income for Indian farmers is Rs. 2500 across 16 states. The majority of Indians rely on agriculture for their livelihood. Villagers in India have the option to work in agriculture, which helps the country develop economically and on a huge scale. The issue of planting the wrong crop on their property based on a conventional or non-scientific approach affects the majority of farmers. For a nation like India, where agriculture provides food for over 42% of the population, this is a difficult undertaking. And the consequences for the farmer of selecting the incorrect crop for the land include migrating to a big city for work, committing suicide, giving up farming, and leasing out the land to an industrialist or using it for purposes unrelated to agriculture. The result of poor crop selection is a lower yield and lower revenue.

★PROBLEM SOLUTION

The proposed system is being implemented using machine learning, one of the applications of artificial intelligence, as a solution to the issue. In accordance with the soil nutrition value and local climate, crop recommendation will advise you on the ideal crop to cultivate on your property. It's also difficult to suggest the optimal fertiliser for each specific crop. The second and most significant problem is when a plant contracts a variety of illnesses that reduce agricultural production and degrade product quality. This suggestion has been made in order to resolve all of these problems. In the field of smart and modern agriculture, a lot of study and effort is now being done. A nitrogen, phosphorus, and potassium-rich soil database serves as the basis for crop recommendations. A recommendation model is created using the ensembles technique by combining the predictions of various machine learning techniques. models to suggest the best crop based on the value of the soil and the usage of the best fertiliser.

★THE BENEFICIAL USERS

- ★ Farmer
- ★ Common
- ★ People Seller
- ★ Buyer
- ★ Employees
- ★ Industrial
- ★ People

★ VALUE FOR SOCIETY

Consumers One of the key industries that affects a nation's economic development is agriculture. The bulk of people in countries like India rely on agriculture for their livelihood. Numerous new technologies are being incorporated into agriculture to make it simpler for farmers to cultivate and increase their production, such as Machine Learning and Deep Learning.

VALUE FOR ENVIRONMENT

The user can input their own soil data into the crop recommendation application, and the programme will then forecast which crop the user should produce.

The user can enter soil information and the type of crop they are growing into the fertiliser suggestion application, and the programme will forecast what the soil lacks or has an abundance of and suggest adjustments.

In the final application, a plant disease prediction tool, the user can upload a picture of a sick plant leaf, and the tool will identify the condition, as well as provide some background information and possible treatments. All of them are intended to enhance agriculture, which helps to mitigate poverty, adverse weather conditions, and soil erosion, among other things.

★ VALUE FOR BUSINESS

Making farmers' lives simpler with minimum subscription costs would yield an acceptable return for the organisation. Predicting fertilisers and analysing illness in a tap would also make farming easier. The corporation and the business as a whole gain a lot of value from this activity.

★ FORM FACTORS

Our disease-specific fertiliser recommendation system The prediction is in the form of a web application to offer this beneficial service to society and the environment.

★ IT IS AN OPPORTUNITY ? (By public review)

