

## **PROPOSED SOLUTION**

The proposed system is being implemented using machine learning, one of the technologies such as ai, 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 challenging to recommend 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.

In the final application, which predicts plant diseases, the user can upload an image of a damaged plant leaf, and the programme will identify the disease, as well as provide some historical context and possible treatments.

These activities aim to enhance agriculture, which in turn helps to mitigate issues like poverty, climate change, and soil erosion.