Introduction:

The global population has been expanding rapidly for many years, standing at around 7.3 billion in 2016, due to a number of factors, such as advanced maternity and healthcare. so human society needs to increase food production by an estimated 70% by 2050 to feed an expected population. actually, to feed a world population growing by up to 160 people per minute, with >90% of them in developing countries, will require an astonishing increase in food production. Unfortunately, Infectious diseases reduce the potential yield by an average of 40% with many farmers in the developing world experiencing yield losses as high as 100%.

Plants act as an important resource for everyone in terms of food. So, it is very important to notice that the plants are not affected by any diseases.

If disease occurs, then it is very necessary to detect plant diseases in the early stage. There exist many models that help in detecting and classifying plant diseases. In Recent days, Machine learning is a great way to detect diseases. It is nothing but it will give the computers the ability to learn without explicitly programmed.

There exist many models in machine learning to detect plant diseases. Some of them are K-means, KNN for classifying the leaves are healthy or diseased. Later on, there is advancement in the field of machine learning which results in the evolution of deep learning. Deep learning algorithms are learning the features from input images during training stage and exhibit results with suitable metrics. The working of deep learning is as follows.

Actually, in deep learning the information is passed through some layers. The output of the previous layer is given as input to the next layer. It passes the learned features from one layer to next layers using activation functions till the output layer produces the desired outcomes.

This idea can be extended for plant disease detection systems to manage and monitor wirelessly in a large-scale agriculture production with the use of drones for surveillance, the use of sensors for managing the quantity of water, as well as fertilizers and light necessary for a qualitative production outcome.

For this issue using our app you can take a photo for the plant and by- processing if the plant is infected or not, if it is then showing the Type of disease and methods of organic and chemical treatment.

In addition, you can create a post according to the category you have chosen (plant type) or other. Asking for help or post some information.

Finally, the calculator part of the amount of fertilizer you use based on the nature of the plant and the area of the cultivated land. Plus, the best fertilization plan you can use.