## FERTILIZER RECOMMENDATION SYSTEM FOR DISEASE PREDICTION

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## **Objective:**

Agriculture plays an Essential role in economic growth of our Country. Selection of crops plays an important role in agricultural land. Major issue is that crops are being affected or destroyed in various stages of its growth. And the reasons are unavoidable and disrespectable. As a result, farmers do not gain a considerable output. Identifying the disease is one of the huge hurtles in agriculture. Most of the plants are affected by leaf disease and it's hard to find to correct fertilizer to cure. Our Agriculture department is undergoing much research to overcome all these hurtles in agriculture. We the team PNT2022TMID04159 has chosen one such problem statement and came up with the solution for it.

The main objective of this project is to identify the disease in the plants and suggest suitable fertilizer for the particular disease in the early stage. In recent years, the number of diseases on plants and the degree of harm caused has increased due to the variation in pathogen varieties, changes in cultivation methods and inadequate plant protection techniques.

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. The main Deep Learning algorithm used here is CNN (Convolutional Neural Network).