

## **PROBLEM STATEMENT**

Nowadays, artificial intelligence and sensor technology play a vital role in the agriculture field. Agriculture is the most important sector in today's life. Most plants are affected by a wide variety of bacterial and fungal diseases. Diseases on plants placed a major constraint on the production and a major threat to food security. Hence, early and accurate identification of plant diseases is essential to ensure high quantity and best quality. 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. The use of excess insecticides and fertilizers in farming poses a risk to human health. It is necessary to control them to ensure healthy crop production.

An automated system is introduced to identify different diseases on plants by checking the symptoms shown on the leaves of the plant. Many techniques are used to identify the pest, diseases, suggest medications, and do soil nutrient analysis techniques separately.