Literature Survey

1. **Plant Disease Detection Using Image Processing**
   Sachin D. Khirade ; A. B. Patil

   Identification of the plant diseases is the key to preventing the losses in the yield and quantity of the agricultural product. The studies of the plant diseases mean the studies of visually observable patterns seen on the plant. Health monitoring and disease detection on plants is very critical for sustainable agriculture. It is very difficult to monitor the plant diseases manually. It requires a tremendous amount of work, expertise in the plant diseases, and also requires excessive processing time. Hence, image processing is used for the detection of plant diseases. Disease detection involves the steps like image acquisition, image pre-processing, image segmentation, feature extraction and classification..

2. **A Mobile-Based System for Detecting Plant Leaf Diseases Using Deep Learning**
   Ahmed Abdelmoamen Ahmed ; Gopireddy Harshavardhan Reddy

   Recent developments in machine learning approaches in the agriculture sector are up-and-coming. They have been receiving significant interest from academia, industries, and governments. This section reviews some of the existing work supporting the detection of crop diseases using different machine learning approaches. Since plant diseases cause significant crop production losses worldwide, tremendous research efforts have been conducted to make crop monitoring and disease diagnosis processes more efficient.

3. **Leaf Disease Detection and Selection of Fertilizers using Artificial Neural Network**
   Neethu K.S ;P .Vijay ganesh

   In our country agriculture is the main occupation. Most of the people lead their life from the agriculture field, they are fully relying on agricultural products. If any plant is enduring disease, then it causes reduction in both quality and quantity of agriculture crops.

Hence it is necessary to detect and analyze disease. Authentic exposure and recognition of crop disease plays an important role in adequately regulating and inhibiting disease for feasible agriculture and food preservation. Thus detection and diagnosis of disease at the right time is essential to the farmer. This proposed system offers a candid and computationally resourceful manner which is useful in the leaf disease detection and selection of fertilizers using artificial neural networks.

4. **Fertilizers Recommendation System For Disease Prediction In Tree Leave**

R. Neela; P. Nithya

Detection and recognition of plant diseases using machine learning are very efficient in providing symptoms of identifying diseases at its earliest. Plant pathologists can analyze the digital images using digital image processing for diagnosis of plant diseases. Application of computer vision and image processing strategies simply assist farmers in all of the regions of agriculture. Generally, plant diseases are caused by the abnormal physiological functionalities of plants. Therefore, the characteristic symptoms are generated based on the differentiation between normal physiological functionalities and abnormal physiological functionalities of the plants. Mostly, the plant leaf diseases are caused by Pathogens which are positioned on the stems of the plants. These different symptoms and diseases of leaves are predicted by different methods in image processing. These different methods include different fundamental processes like segmentation, feature extraction and classification and so on. Mostly, the prediction and diagnosis of leaf diseases are dependent on the segmentation such as segmenting the healthy tissues from diseased tissues of leaves.