Literature Survey:

| S.No | Paper Name | Journal Name | Description |
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| 1. | Fertilizers Recommendation System For Disease Prediction In Tree Leave | R. Neela,  P. Nithya | Agriculture is the main aspect of country development. Many people lead their life from agriculture field, which gives fully related to agricultural products. Plant disease, especially on leaves, is one of the major factors of reductions in both quality and quantity of the food crops. In agricultural aspects, if the plant is affected by leaf disease then it reduces the growth of the agricultural level. Finding the leaf disease is an important role of agriculture preservation. After pre-processing using a median filter, segmentation is done by Guided Active Contour method and finally, the leaf disease is identified by using Support Vector Machine. The disease-based similarity measure is used for fertilizer recommendation. |
| 2. | Agro based crop and fertilizer recommendation system using machine learning | G. Preethi,  R. Priya,  M. SanjulaS,  D. LalithaS,  B. VijayaBindhu | Over one third of world are employed in agriculture and the quantity is gradually falling because the financial losses of the farmers. One of the causes behind this momentary loss is the shortage for era in agriculture. Continuous cropping and over use of fertilizers cause the decline in soil productiveness and impact the environment as well The paper explains how the amount of soil vitamins and environmental factors followed by the pointers for cropping and special fertilization of the site can be established. |
| 3. | Soil Based Fertilizer Recommendation System for Crop Disease Prediction System | Dr.P. Pandi Selvi,  P. Poornima | Agriculture is the main aspect for the economic development of a country. Agriculture is the heart and life of most Indians. But in recent days, the field was going down due to various natural calamities. In order to overcome the problem, various issues in this field need to be addressed. The soil type, fertilizer recommendation, diseases in plants and leaves. |
| 4. | Evaluation of Different Fertilizer Recommendation Systems on Various Soils and Crops in Hungary | P. Csathó,  T. Árendás,  N. Fodor,  T. Németh | The World Phosphorus Institute (IMPHOS) financed a 3‐year program for the testing of various Hungarian fertilizer recommendation systems [the four levels of the new Research Institute for Soil Science and Agricultural Chemistry (RISSAC)–Agricultural Research Institute (RIA) system, the Talajerőgazdálkodás integrated soil fertility management system, and the intensive MÉM NAK system developed in the late 1970s by experts from the Ministry of Agriculture and Food] when applied to three major crops (winter wheat, maize, spring barley) grown on three characteristic Hungarian soils (brown forest soil, chernozem, meadow soil). |

Problem statement:

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. 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.