**ABSTRACT**

The practice of cultivating the soil, producing crops, and keeping livestock is referred to as farming. Agriculture is critical to a country’s economic development. Nearly 58 percent of a country’s primary source of livelihood is farming. Farmers till date had adopted conventional farming techniques. These techniques were not precise thus reduced the productivity and consumed a lot of time. Precise farming helps to increase the productivity by precisely determining the steps that needs to be practiced at its due season. Predicting the weather conditions, analyzing the soil, recommending the crops for cultivation, determine the amount of fertilizers, pesticides that need to be used are some elements of precision farming. Precise Farming uses advanced technologies such as IOT, Data Mining, Data Analytics, Machine Learning to collect the data, train the systems and predict the results. With the help of technologies Precise farming helps to reduce manual labor and increase productivity. Farmers have been facing various challenges in these recent times, this includes crop failure due to less rainfall, infertility of soil and so on. Due to the changes taking place in the environment the proposed work helps to identify how to manage crops and harvest in a smart way. It guides an individual for smart farming. The aim of this work is to help an individual cultivate crops efficiently and hence achieve high productivity at low cost. It also helps to predict the total cost needed for cultivation. This would help an individual to pre-plan the activities before cultivation resulting in an integrated solution in farming.