**LOADING THE DATASETS**

**Data Mining is the process of extract helpful and significant information from huge sets of data. Data Mining in agriculture field is a comparatively novel research field. Yield prediction is a very important agricultural problem. Any farmer is interested in knowing how much yield he is concerning to be expecting. In the earlier period, yield prediction was performing by considering farmer's experience on particular field and crop. In any of Data Mining actions the training data is to be collected from past data and the gathered data is used in terms of training which has to be exploited to study how to categorize future yield predictions**

The main objective is collecting agricultural dataset which can be used to analyzed for useful crop yield forecasting. To predict the crop yield with the help of data mining technique, advanced methods can be introduced to predict crop yield and it is also helps the farmer to choose the most suitable crop, thereby improving the value and gain of the farming area.

**PROCEDURE:**

**Step 1:** The datasets have been collected and refined based on commonality uses such as location, crop, Area, soil type, temperature, humidity etc. From these parameters name of the crop and net yield rate of the crop can be predicted.

**Step 2:** Based on various analyses the parameters location, soil type and area are taken as input and prediction have been undertaken. The attribute soil type specifies the type of soil in a particular region such as Coastal alluvials, Laterite soil and Dark brown alayey soil and the attribute location specifies the 4 different areas such as Mangalore, Kodagu, Hassan, Kasargod.

**Step 3:** By using KNN algorithm, the particular crop has been analysed and predicted by taking various parameters into an account such as soil type area and location.

**Step 4:** By analysing and predicting the crop name and price of particular crop can be found out. This helps the farmers to take the correct decision to sow the crops such that yield rate can be increased.

**This system works as follows:**

**Step 1**: Giving input (training data and testing data) user provide input to system as training data and testing data.

**Step 2:** compute the prediction: Testing data and training data is given to K-NN algorithm which creates clusters from given data. K-NN algorithm gives relevant data, patterns from given datasets.

**Step 3:** Data Acquisition: Depending on the current user location, the system mines the soil properties in the respective area from the soil repository. In a similar approach, weather parameters are extracted from the weather data set.

**Step 4:**Data Processing: A crop can be cultivable only if apropos conditions are met. These include extensive parameters allied to soil and weather. These constraints are compared and the apt crops are ascertained. Multiple Linear Regression is used by the system to predict the crop. The prediction is based on past production data of crops i.e.: identifying the tangible weather and soil parameters and comparing it with current conditions which will predict the crop more accurately and in a practical manner.

**Step 5:** Output: The most profitable crop is predicted by the system using Multiple Linear Regression algorithm and the user is provided with multiple suggestions of crop conferring to the duration of crop.