

Literature Survey:

M. A. Jayaram and Netra Marad, "Fuzzy interference Systems for Crop Prediction", Journal of Intelligent Systems, 2012, 21(4), pp.363-372[1].

Crop yield prediction is now a fascinating study topic thanks to recent developments in agricultural information technology. The amount of information that is now being kept grows daily. It typically lacks structure and cannot be processed using mining techniques to produce relevant information. ([2] Using the Multiple Linear Regression (MLR) technique, this paper provides a brief review of data mining techniques, agriculture methods, farm types, soil types, and forecasts for the chosen location. This study mainly compares irrigated and non-irrigated land while analyzing organic and inorganic farming, time cultivation of plants, profit and loss of data, and commercial real estate land in a certain area. It gathers data sets on organic, inorganic, and real estate that can be used to anticipate agricultural outcomes. The goal is to compare the effectiveness of organic and conventional farming and forecast their respective futures. The goal of this research is to identify appropriate data models with high TMSA yield prediction generality and accuracy.

Prediction of Crop Yield Using Machine Learning A research team examined the use of several information mining techniques to forecast rice crop productivity using information gathered from the Indian state of Maharashtra. Data was gathered regarding policy rice crop yield-affecting factors, such as various meteorological conditions and various harvesting characteristics, in a total of 27 regions in Maharashtra. note-e trim cultivated area, evapotranspiration, and yield from June to November, known as Kharif, from open source, Administrative Records of India; minimum, average, maximum, and extreme temperatures; from open source, Administrative Records of India. Weka is a tool that assigns design impacts to dataset processing and the entire research approach, and it is a Java-based programming language for less difficult assistance with useful data sets.

- Clean up the dataset.
- creating a forecasting model using WEKA and
- Reviewing the results Cross-validation research was conducted to find out how the predictive information mining algorithm performs on a fuzzy dataset.

Data subsets were evaluated using a 10-fold cross-validation study design for both screening and testing. One data segment was used for testing, while the other nine were used for product information. The identified and gathered data was divided into ten segments at random. According to the study, the technique may be used to predict rice crop yields accurately for the Indian state of Maharashtra. The farmer would be better able to comprehend the ideal circumstances for high rice crop production with an accurate measurement of rice productivity under various climatic conditions.

Crop yield gaps can be studied and understood using simulation models based on field experiments, but one of the key difficulties with these approaches is scaling them to estimate data over large geographic areas at various time periods. Satellite-derived data is frequently used to produce data sets that, either alone or in combination with other data and model frameworks, may precisely predict crop yields on agricultural land. By overcoming spatial and temporal constraints, the produced yield maps will offer a singular opportunity to advance the theory behind crop yield gap prediction. A study was done to talk about the use of remote sensing technologies to figure out the effects and root causes of yield gaps. The research team's example shows the value of remote sensing in anticipating yield gaps, but there are still numerous opportunities for application, forecasting, and development in terms of agricultural yield estimation. The study suggests two less involved, quick evaluation approaches to find and compare yield disparities between various agricultural fields. While the second technique makes use of remote sensing technologies, the first method closely integrates constructive maps that show average crop yields and can be utilized for research to access elements directly affecting particular crop yields. Crop yield estimation and forecasting..