ESTIMATE THE CROP YIELD USING DATA ANALYTICS

LITERATURE SURVEY

TITLE: Agriculture Data Analytics in Crop Yield Estimation: A Critical Review

AUTHOR: B M Sagar, Cauvery N K

YEAR: 2018

ABSTRACT:

Agriculture is important for human survival because it serves the basic need. A well-known fact that the majority of population (≥55%) in India is into agriculture. Due to variations in climatic conditions, there exist bottlenecks for increasing the crop production in India. It has become challenging task to achieve desired targets in Agri based crop yield. Various factors are to be considered which have direct impact on the production, productivity of the crops. Crop yield prediction is one of the important factors in agriculture practices. Farmers need information regarding crop yield before sowing seeds in their fields to achieve enhanced crop yield. The use of technology in agriculture has increased in recent year and data analytics is one such trend that has penetrated into the agriculture field. The main challenge in using big data in agriculture is identification of effectiveness of big data analytics. Efforts are going on to understand how big data analytics can agriculture productivity. The present study gives insights on various data analytics methods applied to crop yield prediction and also signifies the important lacunae points' in the proposed area of research.

TITLE: Crop Yield Prediction Using Data Analytics and Hybrid Approach

AUTHOR: Ms. Shreya V. Bhosale, Mr. Prasanna G. Dhemey, Ms. Ruchita A. Thombare, Ms. Anagha N. Chaudhari

YEAR: 2018

ABSTRACT:

Agricultural data is being produced constantly and enourmosly. As a result, agricultural data has come in the era of big data. Smart technologies contribute in data collection using electronic devices. In our project we are going to analyse and mine this agricultural data to get useful results using technologies like data analytics and machine learning and this result will be given to farmers for better crop yield in terms of efficiency and productivity.

TITLE: Analysis Of Crop Yield Prediction Using Data Mining Technique

AUTHOR: Ms. Fathima, Ms. Sowmya K, Ms. Sunita Barker, Dr. Sanjeev Kulkarni

YEAR: 2020

ABSTRACT:

India is generally an agricultural country. Now a days the most important emerging field in the real world is agriculture and it is the main occupation and backbone of our country. Recent developments in Information Technology for agriculture field has become an interesting research area to predict the crop yield. Crop yield prediction is the methodology to predict the yield of the crops using different parameters like rainfall, temperature, fertilizers, pesticides and other atmospheric conditions and parameters. Data Mining techniques is very popular in the area of agriculture. Data mining techniques are used and evaluated in agriculture for estimating the future years crop production. This paper presents a brief analysis of crop yield prediction using K-Nearest Neighbor(KNN) Algorithm for the selected region that is Mangalore, Kasargod, Hassan, Kodagu in India

TITLE: Crop Yield Forecasting Using Data Mining

AUTHOR: PallaviKamath, PallaviPatil, Shrilatha S, Sushma, Sowmya S

YEAR: 2021

ABSTRACT:

India is a heavily reliant on agriculture. Organic, economic, and seasonal factors all influence agricultural yield. Estimating agricultural production is a difficult task for our country, particularly given the current population situation. Crop production assumptions made far in advance can help farmers make the necessary planning for things like storing and marketing. Crop production prediction involves a huge amount of data, making it a perfect candidate for data mining methods. Data mining is method of accumulating previously unseen anticipated information from vast database. Data mining assists in the analysis of future patterns and character, enabling companies to make informed decisions. For a specific region, this research provides a fast inspection of agricultural yield forecast using the Random Forest approach.

TITLE: Analysis Of Crop Yield Prediction Using Data Mining Techniques

AUTHOR: D Ramesh , B Vishnu Vardhan

YEAR: 2015

ABSTRACT:

Agrarian sector in India is facing rigorous problem to maximize the crop productivity. More than 60 percent of the crop still depends on monsoon rainfall. Recent developments in Information Technology for agriculture field has become an interesting research area to predict the crop yield. The problem of yield prediction is a major problem that remains to be solved based on available data. Data Mining techniques are the better choices for this purpose. Different Data Mining techniques are used and evaluated in agriculture for estimating the future year's crop production. This paper presents a brief analysis of crop yield prediction using Multiple Linear Regression (MLR) technique and Density based clustering technique for the selected region i.e. East Godavari district of Andhra Pradesh in India

TITLE: Analysis of agriculture data using data mining techniques: application of big data

AUTHOR: Jharna Majumdar, Sneha Naraseeyappa & Shilpa Ankalaki

YEAR: 2017

ABSTRACT:

In agriculture sector where farmers and agribusinesses have to make innumerable decisions every day and intricate complexities involves the various factors influencing them. An essential issue for agricultural planning intention is the accurate yield estimation for the numerous crops involved in the planning. Data mining techniques are necessary approach for accomplishing practical and effective solutions for this problem. Agriculture has been an obvious target for big data. Environmental conditions, variability in soil, input levels, combinations and commodity prices have made it all the more relevant for farmers to use information and get help to make critical farming decisions. This paper focuses on the analysis of the agriculture data and finding optimal parameters to maximize the crop production using data mining techniques like PAM, CLARA, DBSCAN and Multiple Linear Regression. Mining the large amount of existing crop, soil and climatic data, and analysing new, non-experimental data optimizes the production and makes agriculture more resilient to climatic change.

TITLE: Analysis Of Crop Yield Prediction Using Data Mining Technique To Predict Annual Yield Of Major Crops

AUTHOR: B. Devika, B. Ananthi

YEAR: 2018

ABSTRACT:

India is generally an agricultural country. Agriculture is the single most important provider to the Indian economy. Agriculture crop production depends on the season, organic, and monetary cause. The prognostication of agricultural yield is challenging and pleasing task for every nation. Nowadays, Farmers are hostile to produce the yield because of erratic climatic changes and scarcity of water resource. The main objective is collecting agricultural

data which can be stored and 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 also helps the farmer to choose the most suitable crop, thereby improving the value and gain of the farming area.

TITLE: A Model for Prediction of Crop Yield

AUTHOR: E. Manjula, S. Djodiltachoumy

YEAR: 2017

ABSTRACT:

Data Mining is emerging research field in crop yield analysis. Yield prediction is a very important issue in agricultural. Any farmer is interested in knowing how much yield he is about to expect. In the past, yield prediction was performed by considering farmer's experience on particular field and crop. The yield prediction is a major issue that remains to be solved based on available data. Data mining techniques are the better choice for this purpose. Different Data Mining techniques are used and evaluated in agriculture for estimating the future year's crop production. This research proposes and implements a system to predict crop yield from previous data. This is achieved by applying association rule mining on agriculture data. This research focuses on creation of a prediction model which may be used to future prediction of crop yield. This paper presents a brief analysis of crop yield prediction using data mining technique based on association rules for the selected region i.e. district of Tamil Nadu in India. The experimental results shows that the proposed work efficiently predict the crop yield production.