IDEATION PHASE

LITERATURE SURVEY

Date	02 September 2022
Team ID	PNT2022TMID54027
Project Name	Estimate the crop yield using data analytics
Maximum Marks	4 Marks

LITERATURE SURVEY: 1

NAME OF THE JOURNAL : Agriculture Data Analytics in Crop Yield Estimation: A Critical Review

AUTHOR / PUBLISHER : B M Sagar and Cauvery N K

YEAR OF PUBLICATION : 2018

INFERENCE REVIEW :

The purpose of the author is to develop a solution and help farmers to get the information regarding crop yield before sowing seeds in their fields to achieve enhanced crop yield. The farmers experience was the only way for prediction of crop yield in the past days. But now the technology penetration into agriculture field has led to automation of the activities like yield estimation, crop health monitoring etc. This survey focuses on Data mining techniques that are being widely used as a part of solution for crop yield prediction. Data Mining is the process in which the hidden patterns are discovered using analysis of large data sets. 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.

LITERATURE SURVEY: 2

NAME OF THE JOURNAL : Prediction of Crop Yield using Regression Analysis

AUTHOR / PUBLISHER : V. Sellam and E. Poovammal

YEAR OF PUBLICATION : 2016

INFERENCE REVIEW :

In here the author works on the crop yield prediction which benefits the farmers in reducing their losses and to get best prices for their crops. The objective of this work is to analyse the environmental parameters like Area under Cultivation, Annual Rainfall and Food Price Index that influences the yield of crop and to establish a relationship among these parameters. To implement this the author has used Regression Analysis to analyse the environmental factors and their infliction on crop yield. Regression Analysis is a multivariate analysis technique which analyses the factors and helps to obtain a decision. A sample of environmental factors like Area under Cultivation, Annual Rainfall and Food Price Index are considered for a period of 10 years from 1990-2000. In Linear Regression the R^2 value clearly shows that yield is mainly dependent on Annual Rainfall. Area under Cultivation and Food Price Index are the other two factors influencing the crop yield.

LITERATURE SURVEY: 3

NAME OF THE JOURNAL : Predicting Rice crop yield using Bayesian networks

AUTHOR / PUBLISHER : Niketa Gandhi, Leisa Jane Armstrong and Owaiz Petkar

YEAR OF PUBLICATION : 2016

INFERENCE REVIEW :

In here the author works on the rice crop prediction which plays a vital role in food security of India. High crop production is dependent on the suitable climatic conditions. Detrimental seasonal climate conditions such as low rainfall or temperature extremes can dramatically reduce crop yield. Developing better techniques to predict crop productivity in different climatic conditions can assist farmer in important decision making in terms of agronomy and crop choice. This paper reports on the use of Bayesian Networks to predict rice crop yield for Maharashtra state, India. For this study, 27 districts of Maharashtra were selected on the basis of available data from the Indian Government records with various climate and crop parameters selected. The parameters selected for the study were precipitation, minimum temperature, average temperature, maximum temperature, reference crop evapotranspiration, area and production. The classifiers used in the study were BayesNet and NaiveBayes. The experimental results showed that the performance of BayesNet was much better compared with NaiveBayes for the dataset.

LITERATURE SURVEY: 4

NAME OF THE JOURNAL : Prediction of Crop Yield Using Machine Learning Algorithm

AUTHOR / PUBLISHER : Lavenya P, Lakshmi Priya, P.V. Hemavathi and Dr . M. Preetha

YEAR OF PUBLICATION : 2022

INFERENCE REVIEW :

In here the author works on the implementation of the crop selection method so that this method helps in solving many agriculture and farmers problems. This improves our Indian economy by maximizing the yield rate of crop production. There are different types of land conditions so the quality of the crops is identified using ranking process. By this process the rate of the low quality and high-quality crop is also notified. With these results we will be able to find which crop gives us the maximum yield.

LITERATURE SURVEY: 5

NAME OF THE JOURNAL : **Soil Data Analysis and Crop Yield Prediction in Data Mining using R-Tool**

AUTHOR / PUBLISHER : **K. Samundeeswari and K. Srinivasan**

YEAR OF PUBLICATION : **2020**

INFERENCE REVIEW :

In here the author works on the Crop yield prediction which is an important issue for the proper selection of crop for sowing. Data mining techniques is the better choice for predicting the crop. 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 soil data. This is achieved by applying Decision Tree Algorithm on agricultural data. This paper presents a brief analysis of Crop yield prediction using data mining technique based decision tree algorithm and C5.0 algorithm for the selected region (Krishnagiri) district of Tamil Nadu in India.