

LITERATURE REVIEW

ESTIMATE THE CROP YIELD USING DATA ANALYTICS

1. Crop Yield Prediction Using Data Analytics and Hybrid Approach

Objective: Our main aim is to predict the future crop productivity and an analysis is to be made in order to help the farmers to maximize the crop production of crops, using data analytics techniques or algorithms.

Result contains crop names which is suggested in that region for specified rainfall as well as land of farmer in acres. The predicted yield as crop count attribute is displayed in kg/acre format. The attribute yield describes the average production of that crop in 1 acre.

Link: • <https://ieeexplore.ieee.org/document/8697806>

2. Agriculture yield prediction using predictive analytic techniques

India's economy primarily depends on agriculture yield growth and their allied agroindustry products. The agriculture yield prediction is the toughest task for agricultural departments across the globe. The agriculture yield depends on various factors. Particularly countries like India, majority of agriculture growth depends on rain water, which is highly unpredictable. Agriculture growth depends on different parameters, namely Water, Nitrogen, Weather, Soil characteristics, Crop rotation, Soil moisture, Surface temperature and Rain water etc. In our paper, lot of Explorative Data Analysis is done and various predictive models were designed. Further various regression models like Linear, Multiple Linear, Non-linear models are tested for the effective prediction or the forecast of the agriculture yield for various crops in Andhra Pradesh and Telangana states.

Link: • <https://ieeexplore.ieee.org/document/7918789>

3. Agriculture Data Analytics in Crop Yield Estimation: A Critical Review

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.

Link:

https://www.researchgate.net/publication/329467349_Agriculture_Data_Analytics_in_Crop_Yield_Estimation_A_Critical_Review

4. Big Data Analytics for Crop Prediction Mode Using Optimization Technique

This paper presents a hybrid model i.e. SVM_GWO that uses a combinational approach for improving the classification accuracy, recall, precision, f-measure by selecting the optimal parameters settings in SVM. In this classification we have extract the feature vector with minimum error and converge and then SVM_GWO is developed for selecting the optimal SVM parameters. Result show that the proposed approach is better than the typical SVM classification algorithm with classification accuracy 77.09%, precision 75.38%, recall 74.189% and f measure 73.15%.

Link:•<https://ieeexplore.ieee.org/document/8746001/references#references>