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LITERATURE REVIEW

ESTIMATE THE CROP YIELD USING DATA ANALYTICS

1. A Novel Approach using Big Data Analytics to Improve the Crop Yield in Precision Agriculture

Agriculture is the main work field in India. Farming industry adopts less innovative technology compared to other industries. Information and Communication Technologies provides simple and cost effective techniques for farmers to enable precision agriculture. The work propose a state of the art model in agriculture field which will guide the rural farmers to use Information and Communication technologies (ICT) in agriculture fields. Big data analytics is used to improve the crop yield. It can be customized for precision agriculture to improve the quality of crops which improves the overall production rate.

Link: https://ieeexplore.ieee.org/document/9012549

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

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.

Link:
https://www.academia.edu/44236224/Agriculture_Data_Analytics_in_Crop_Yield_Estimation_A_Critical_Review

3. Advancing Precision Crop Yield Prediction With Data Analytics

Since 1980, farmers around the world have been turning to the World Agricultural Supply and Demand Estimates prepared by the U.S. Department of Agriculture (USDA) for help in making these decisions. Every month, the USDA releases supply-and-demand forecasts, an exhaustive analysis compiled from farmer surveys and historical weather patterns, for major crops like corn and soybeans

Now, however, a number of other players have entered the game, bringing a new level of expertise and computing power to the problem. Their efforts aren't just making life easier for growers. Their ultimate goal: to make agriculture safer and more sustainable far into the future.

Link: https://www.corteva.com/who-we-are/outlook/precision-crop-yield-prediction-with-data-analytics.html

4. **How data analytics is transforming agriculture**

Data analytics is a critical part of improving business operations in every industry. An organization can utilize data analytics to improve decision-making, analyze customer trends, track customer satisfaction and identify opportunities for new products and services to meet growing market needs. By integrating information and systems to gather data across the business, organizations are able to gain real-time insights into marketing, product demand, sales and finances.
With the world population expected to reach more than nine billion by the year 2050, The Food and Agriculture Organization (FAO) predicts a 70-percent growth in agricultural output will be needed to serve the projected demand. This driving force has greatly increased the interest in and utilization of data analytics in agribusiness.

Link: https://proagrica.com/news/how-data-analytics-is-transforming-agriculture/