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Team ID	PNT2022TMID46328
Project Name	<b>Estimate the crop yield using data analytics</b>
Maximum Marks	4 Marks

## **Estimate the crop yield using data analytics**

### **LITERATURE SURVEY**

Agriculture is important for human survival because it serves the basic need. A well-known fact that the majority of population ( $\geq 55\%$ ) in India is into agriculture. Due to variations in climatic conditions, there exist bottlenecks for increasing the crop production in India. It has become a 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 years 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.

Easy to understand and analysis crop production in state and district wise for big data analytics

There has been much research and various attempts to apply new data analytics technology to agricultural areas. However, data analytics for the agriculture should be considered differently against the same areas such as industrial, logistics. This paper

presents the data analytics-based agricultural production system for stabilizing and demand of agricultural products while developing the environment and prediction system for the growth and production amount of crops by gathering its environmental information. Currently, the demand by consumption of agricultural products could be predicted quantitatively, however, the variation of harvest and production by the change of farm's cultivated area, weather change, disease and insect damage etc. could not be predicted, so that the supply and demand of agricultural products has not been controlled properly. To overcome it, this paper designed the data analytics-based monitoring system to analyze crop environment, and the method to improve the efficiency of decision making by analyzing harvest statistics. Therefore, this paper developed the decision support system to forecast agricultural production using data analytics. This system was also a unified system that supports the processes sowing seeds through selling agricultural products to consumers. 3 Corresponding author The data analytics -based agricultural production system through correlation analysis between the crop statistical information and agricultural environment information has enhanced the ability of farmers, researchers, and government officials to analyze current conditions and predict future harvest. Additionally, agricultural products quality can be improved because farmers observe whole cycle from seeding to selling using this data analytics-based decision support system.

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