

MACHINE LEARNING TECHNIQUES USING FARMER CROP YIELD PREDICTION

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ABSTRACT:

Horticulture is the field which assumes a significant part in further developing our nations economy. Horticulture is the one which brought forth human progress. India is an agrarian nation and its economy generally founded on crop efficiency. Consequently we can say that farming can be spine of all business in our country. In agriculture planning, selecting each crop is very important. The choice of yields will rely on the various boundaries, for example, market cost, creation rate and the different government strategies. Many changes are expected in the agribusiness field to further develop changes in our Indian economy. We can further develop horticulture by utilizing AI methods which are applied effectively on cultivating area. Alongside all advances in the machines and advancements utilized in cultivating, helpful and precise data about various matters likewise assumes a huge part in it. The idea of this paper is to carry out the harvest choice technique so this strategy helps in tackling numerous agribusiness and ranchers issues. This works on our Indian economy by augmenting the yield pace of harvest creation.

Key Words: Circumstances, Prediction, ML, Crop, AI

1.INTRODUCTION

The primary objective of agrarian arranging is to accomplish greatest yield pace of harvests by utilizing predetermined number of land assets. Many AI calculations can assist in working on the development of harvest with yielding rate. At the point when there is misfortune in negative circumstances we can apply crop choosing technique and decrease the misfortunes. What's more, it very well may be utilized to acquire crop yield rate in ideal circumstances. Increasing the yield rate to its maximum aids in economic development. We have a few of the factors that affect the rate of crop yield. They are seed quality and yield choice. We want test the nature of the seeds prior to planting. As we realize that great nature of seeds helps in getting more yield rate. Also, determination of yields relies on two things that is positive and horrible circumstances. This can likewise be improved by utilizing hybridization strategies. A lot of research is done to make agricultural planning better. The objective is to get the most extreme yield of harvests. Numerous characterization techniques are additionally applied to get greatest yield of harvests. AI strategies can be utilized to further develop the yield pace of harvests. The technique for crop choice is applied to further develop crop creation. The creation of yields might rely upon geological states of the district like waterway ground, slope regions or the profundity regions. Conditions like humidity, precipitation, temperature, and clouds Soil type might be dirt, sandy, saline or peaty. Copper, potassium, phosphate, nitrogen, manganese, iron, calcium, ph value or carbon, and various harvesting methods can all make up the composition of the soil. Numerous boundaries are utilized for various yields to do various expectations. These expectation models can be concentrated by utilizing investigates. These expectations are named two sorts. One is customary measurement strategy and other is AI procedures. Customary technique assists in anticipating with singling test spaces. What's more, AI strategies helps in foreseeing numerous forecasts. We want not to consider the design of information models in customary strategy where as the need might arise to consider the construction of information models in AI techniques.

2.LITERATURE SURVEY

1)Crop Selection Method to Maximize Crop Yield Rate using Machine Learning Technique

AUTHORS: J.P. Singh, Rakesh Kumar, M.P. Singh and Prabhat Kumar

I have reasoned that this paper assists in working on the yield with rating of harvests by applying characterization strategies and looking at the boundaries. We can likewise do examining and expectation of harvests utilizing baysian calculations. The calculations utilized are Bayesian calculation, K-implies Calculation, Bunching Calculation, Backing Vector Machine. The disadvantage is that neither performance nor accuracy are adequate.

2)Applications of Machine Learning Techniques in Agricultural Crop Production

AUTHORS: Subhadra Mishra, Debahuti Mishra and GourHariSantra

I have presumed that this is a high level explored field and is supposed to fill from now on. The joining of software engineering with agribusiness helps in determining horticultural harvests. This strategy additionally helps in giving data of harvests and how to increment yield rate. The calculations utilized are Fake brain organizations, Choice Tree Calculations, Relapse examination. The hindrance is clear system isn't determined.

3)Machine Learning: Applications in Indian Agriculture, International Journal of Advanced Research in Computer and Communication Engineering

AUTHORS:Karan deep Kauri

I have come to the conclusion that this paper will examine the various farming-related machine learning applications. And furthermore gives a knowledge into the difficulties looked by our Indian ranchers and how these can be settled utilizing these strategies. This technique help in expanding the cultivating area in the nations and apply the more AI applications. Artificial neural networks, Bayesian Belief Networks, Decision Tree Algorithms, Clustering, and Regression Analysis are the algorithms that are utilized. The burden is less precision regarding execution.

4)A Model for Prediction of Crop Yield, International Journal of Computational Intelligence and Informatics

AUTHORS:E. Manjula, S. Djodiltachoumy

I have reasoned that the point of this paper is to propose and carry out a standard based framework. Furthermore, foresee the harvest yield creation from the assortment of past information. The calculations utilized are Kmeans Calculation, bunching technique. The disadvantage is that it can only be used with the association rule and that less data is considered.

5)Crop Selection Method Based on Various Environmental Factors Using Machine Learning

AUTHORS:Nishit Jain, Amit Kumar, SahilGarud, Vishal Pradhan, PrajaktaKulkarni

I have reasoned that this paper assists in anticipating with trimming groupings and augmenting yield rates and making advantages to the ranchers. Additionally, Utilizing AI applications with horticulture in foreseeing crop illnesses, concentrating on crop reenactments, different water system designs. The calculations utilized are Fake brain organizations, Backing Vector Machine. The detriment is Accurate precision isn't indicated.

3.SYSTEM ANALYSIS AND DESIGN

EXISTING SYSTEM:

Consequently our ranchers ought to know every one of the new innovations of AI and other new procedures. These strategies help in getting most extreme yield of harvests. Machine learning is used in a variety of ways in agriculture to increase crop yield rates. The creation of yields might rely upon geological states of the district like waterway ground, slope regions or the profundity regions. Conditions like humidity, precipitation, temperature, and clouds Soil type might be dirt, sandy, saline or peaty. Copper, potassium, phosphate, nitrogen, manganese, iron, calcium, ph value or carbon, and various harvesting methods can all make up the composition of the soil. Numerous boundaries are utilized for various yields to do various expectations

DISADVANTAGES:

- As the ranchers are dealing with numerous issues in farming area we want to limit their concerns
- As the ranchers don't be aware to utilize Weka apparatus
- Low Effectiveness

PROPOSED SYSTEM:

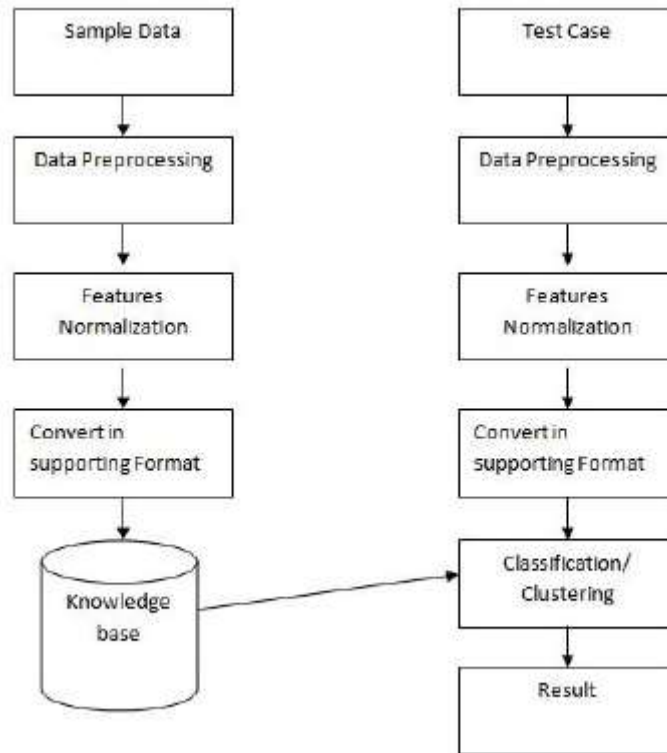
we have considered just the Guileless Bayes strategy and K-Closest Neighbor technique. Utilizing these two strategies we can anticipate which harvests to be chosen for their territory and season.this application we can do single testing by giving contribution as yield name, season chose and place chose. We can utilize a strategy among KNN or NB technique. As soon you give the info you can choose the strategy and mine the outcomes. The outcomes will let you know the yield pace of that harvest. Also, we can do different testing by examining the datasets. In breaking down it permits you to choose an entire document without a moment's delay and get the precision.

ADAVANTAGES:

High productivity decrease of issues should be possible by executing new procedures on farming This application assists them with foreseeing the yield. This will assist the ranchers which with trimming to be chosen for their property or the locale

SYSTEM DESIGN

SYSTEM ARCHITECTURE:



4.CONCLUSION

Agribusiness is the field which helps in financial development of our country. Be that as it may, this is deficient with regards to behind in utilizing new advances of AI. Consequently our ranchers ought to know every one of the new innovations of AI and other new procedures. These strategies help in getting most extreme yield of harvests. Machine learning is used in a variety of ways in agriculture to increase crop yield rates. These procedures additionally help in tackling issues of agribusiness. We can likewise get the exactness of yield by checking for various strategies. Thus we can work on the exhibition by actually looking at the precision between various yields. Sensor advances are carried out in many cultivating areas. This paper assists in getting most extreme yield with rating of the harvests. Likewise helps in choosing appropriate yield for their chose land and chose season. These strategies will take care of the issues of ranchers in horticulture field. This will help in working on the monetary development of our country.

FUTURE ENHANCEMENT

- Measure suggestions for assortments: As of now the bearing in which the elements influence yield is accessible. I might want to evaluate these impacts and ideally give more exact proposals.
- Integrate more climate factors: Hours of sunlight, humidity, and temperature.
- Integrate soil information.
- For recommendations, gather location-based variety data: In the event that every one of the assortments can be tried at the various areas, then assortments for which there wasn't information before can be prescribed to specific areas.
- Endeavor to utilize blended models (regarding a few indicators as irregular factors).

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