

DATA ANALYTICS – ESTIMATE THE CROP YIELD USING DATA ANALYTICS

PROPOSED SOLUTION

S. No.	Parameter	Description
1.	Problem Statement (Problem to be solved)	<p>The frequent changes in climate conditions are affecting more in crop production.</p> <p>Most of the forecasts are seasonal and are available around 1-2 months before the crop Harvesting.</p> <p>Farmers are benefited if recommendation and forecast of crop are available before sowing of crop.</p>
2.	Idea / Solution description	<p>Contribution of this project is to improve the agricultural productivity and provide the crop recommendation to the farmers.</p> <p>By performing</p> <ul style="list-style-type: none"> • Weather indices-based Regression Analysis • Seasonal analysis • Time series analysis
3.	Novelty / Uniqueness	<p>Improve the results of analysis model (Yield prediction model, price forecasting model) Using large number of crop datasets and more weather parameters.</p> <p>Building a strong yield prediction and price forecasting model for all the crops on this analysis.</p> <p>Generating the crop recommendation using natural or local using natural or local language to make it user friendly.</p>
4.	Social Impact / Customer Satisfaction	<p>Extreme weather events such as</p> <ul style="list-style-type: none"> • High temperature • Heavy storms • Droughts <p>Can Severely disrupt crop production.</p>

5.	Business Model (Revenue Model)	<ul style="list-style-type: none"> • Increasing innovation <p>Based on analytics farmers can take better decisions for healthy crop production.</p> <ul style="list-style-type: none"> • Increasing productivity • Reducing Waste • Improving Profits
6.	Scalability of the Solution	<ol style="list-style-type: none"> 1. Weather indices-based Regression Analysis <ul style="list-style-type: none"> • To analyse the relationship of crop yield, monthly average temperature, and monthly average rainfall. 2. Seasonal analysis <ul style="list-style-type: none"> • To analyses crop yield with respect to seasonal weather parameters. 3. Time series analysis <ul style="list-style-type: none"> • To analyses and forecast the wholesale monthly market.