

## FARM-EASY A PLATFORM FOR FARMING NEEDS AND CROP RECOMMENDATION

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### ABSTRACT

E-commerce is clearly beginning to have a major impact in the agricultural sector. The way people go about purchasing agricultural products is of great concern. Most of the time customers have to travel far distances to get agricultural products and getting the right quality is not ensured. Our project aims to help farmers as well as customers for buying and selling agricultural products across the country using a computerized approach. The website will guide the farmers to access new farming techniques, compare current market rate of different products, the total sale and the earned profit for the sold products. The website builds a platform for farmers to ensure greater profitability through end user communication. The website will act as a unique and secure way to perform agro-marketing. E-farming will serve as a way for the farmers to sell their products across the country just with some basic knowledge about how to use the website. This project allows viewing various products available enables users to purchase desire products instantly by online payment.

### 1. INTRODUCTION

Ecommerce is reasonable to say that the process of shopping on the web is becoming common place. It is the buying and selling of goods and services, or the transmitting of funds or data, over an electronic network, primarily the internet. The terms ecommerce and e-business are often used interchangeably. The main objective of this project is to help farmers ensure greater profitability through direct farmer to end user communication. Our project deals with respect to the farmers benefit of getting their products sale at a best price online. Here, the main users of this website are farmer, customer, and admin. Farmers will get unique interface where they can perform marketing, get the correct rates of the market, get in touch with SMS or Email and gather knowledge of different schemes and get pay online. Agricultural E-commerce enables good trading possibilities by supporting different business models such as multi-suppliers, e-sales and several types of auctions. Today E-commerce lacks fully automated business processes and still requires a significant manual effort by users. So, our project tries to solve all lacking of E-commerce business process.

#### Problem Statement/Issue:

- Being an Agriculture dependent country, and every sector is adapting technology. But in agricultural field is lacking behind in availing the technological benefits.
- E-commerce is present in agriculture field but not implemented properly, (not tempting the farmers toward itself, so that they adapt it).
- Failure of farmers to decide on the best-suited crop for the land using traditional and non-scientific methods is a serious issue for a country where approximately 58 percent of the population is involved in farming.
- Huge demand of a platform which have Agriculture-Commerce as well as crop recommendation.

### 2. LITRATURE SURVEY

Agriculture plays an important role in India's socio-economic situation. The inability of farmers to determine which crop is best for the world using traditional and non-scientific methods is a serious matter in a country where about 58 percent of the population is involved in farming. Farmers sometimes fail to select the right crops depending on soil conditions, planting time and location. This results in suicide, agricultural rejection, and urbanization. To address this issue, this research program has developed a program to assist farmers in selecting crops by considering all factors such as planting season, soil and location. In addition, accurate agriculture is being used with the latest agricultural technologies and is developing in developing countries with a focus on crop management. Product prices in different markets where they can sell their products for maximum profit. This has inspired us to build and build a system that is useful for farmers and end users.[1]

Technological innovations and competition have forced some farms and subsidiaries to use supply chain mode to control their availability, production and sale. Clearly, the operation of the agricultural chain cannot be separated at once, accurate information about buying, manufacturing, demand, supply, marketing and more work activities. However, there are a few experts who do specifically discussed the process of sharing information in the series agricultural products in local and foreign literature. This paper seeks to combine the information and level of Web Service in the supply chain of agricultural products and launches a Web Service information sharing system. By

analysing the four modules of information sharing program, authors present this visitation program a system for sharing information and explaining how it is used and how it is used on our platform. The authors believe that this is a form of information sharing the program can help users view their interests in the client and the system show what determines the interests of users in the area. [2]

India cooperates with the agriculture of nurses and that world is still struggling to embrace the old ways of saying agricultural recommendations. Currently the recommendations of farmers supporting cooperation between farmers and completely different professionals with a variety of recommendations that will provide information on the plight of farmers in past agricultural activities that facilitate the release of information and ideas. Market trends are possible are also included to provide improved results from a compliment. This paper recommends the use of information mines for to provide farmers with crop recommendations, crop rotation and this identify acceptable foods. The system can be monitored online farmers and golem primarily based on mobile devices.[3]

As an effective way to solve the problem of information overload, Wise recommendations have become a necessary ecommerce the environment of agricultural products. Smart lesson recommendations agricultural products make remarkable progress, but also faces new challenges with the rapid development of the ecommerce of agricultural products and the advent of the big data era. We begin by summarizing the characteristics of intelligent assets recommendations. Second, we present an example of intellectual research recommendation of agricultural products based on large e-commerce data from four sectors: consumer behaviour mines, commodity use, product algorithm development and agricultural product testing recommendations. Then we point out the errors and difficulties in current study. Finally, we look to the future for guidance development.[4]

Market data for e-commerce agricultural products has its unique features and delays. It is often difficult for producers to obtain and accurately capture real-time market information well in advance, leading to economic losses under information equity. In the view of the producers of agricultural products, which includes a platform for the use of new blockchain technology and a basic platform and ecommerce platform service platform, an e-commerce agricultural product support program, based on blockchain technology and based on a blockchain, built database. The program consists of three subsystems: an e-commerce agricultural product information service platform, creative information response and asset information response platform, and eliminates the collection, sorting and output of these three types of information under the support of the blockchain system, to assist agriculture. producers to make informed decisions and achieve the goal of promoting the sale of agricultural products as well to increase farmers' income.[5]

### 3. IMPLEMENTATION & RESULT

We are providing the site with Buying and selling food market place features for customers:

**Efficient Product Management:** Seller should be ready to easily add or remove any products they own, specify prices, and supply the required details.

**Comfortable Order Processing with Notifications:** Vendors got to see exactly what was ordered, how much, the delivery details, and be notified about different changes within the delivery process.

Communication through the system we are proposed will be easy.

**Review or Rating System:** The buyers always want to make certain that they will trust the vendor.

**Customer Registration / Login:** Customers should also access the platform easily.

**Attractive Interface:** The attractive and user-friendly design can make all the difference.

**Helpful Search with Filters:** In your buy and sell marketplace development, product search plays a crucial role. Buyers should easily map out among different types of product to seek out specially what they're trying to find. Easy checkout tactic of adding products to carts and proceeding to buy them has to be smooth.

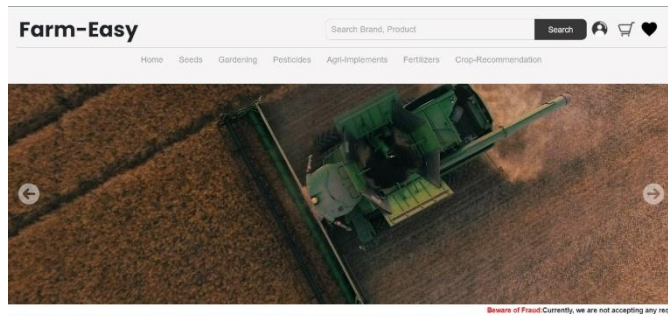
**Machine learning for crop selection:** Machine learning is an important decision support tool for crop yield prediction, including supporting decisions on what crops to grow and what to do during the growing season of the crops.

#### SYSTEM DESIGN

E-commerce website design is the method of shaping the coding modules, interfaces and information for a system to satisfy mere needs. System Module Description:

- Technology (HTML, CSS, JS, React, ExpressJS, Mongo DB, Machine Learning)
- Seller
- Customer
- Management
- Delivery
- Crop Recommendation using KNN algorithm

#### Actual Project



**Crop Recommendation**  
Get the best Recommendation for crop to grow using our ML algorithm

Nitrogen	Phosphorus
Potassium	Temperature
Humidity	pH Value
Rainfall	

#### 4. CONCLUSION

- Implement a user-friendly platform which is easily adaptable by any non-teachy person.
- That platform support e-commerce as well as the crop recommendation functionality.
- The whole platform should support a universal language (English) as well as Local language (Hindi), Because this feature attracts users toward the platform.

#### 5. FUTURE SCOPE

- Support for Android and IOS in future.
- AI learned E-Commerce.
- Enhancement in login/logon system using Face recognition (Using Cloud).

#### 6. REFERENCES

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