

# Farmiculture

**Team Name:-** Team 2

**Theme:-** Social good

**Members:-** Madhur Padavala, Nithesh C, Rohan Mittal, S P Mihir Achyuta

## Problems

- Farmers lack scientific knowledge about the land and the appropriate crops which they can grow in the land so they can get maximum yield.
- The number of landless agricultural workers in India as per Census 2001 was 10.67 crore and as per Census 2011 it was 14.43 crore. Day by day the number of landless farmers are increasing at an alarming rate.
  - Among them some farmers either work in the land of other farmers or lease lands and do the cultivation in it. But in both cases they are exploited by the landlords and if there are losses landless farmers have to bear it.
  - The rest of the farmers are jobless and start migrating to cities for work
- On the other hand there are other landowners who wish to put their land for crop production but do not have proper knowledge or man power to work on it

## Solution

To solve these issues we have come up with a model which can find work for landless farmers as well as support landowners and farmers for crop production. Our model provides three services which are

- Land Analysis:- Setting up sensors on the land and using the data collected to suggest appropriate crop for maximum yield using an AI model. This data will be displayed to the customers so they can monitor their land during production
- Connecting Landless farmers with landowners:- Farmers searching for employment get registered with us and we will be linking them with landowners who are in need of farmers.
- Farm management:- Managing the crop production which includes human resources, crop inputs and crop protection. This service is mostly used by landowners who do not want to be involved in the management and just want to act as investors.

# **BUSINESS MODEL**

## **Landless farmers**

1. Will be registering with us, providing their details which include age, years of experience, health condition, location and other personal details
2. They will be signing a contract to work with us for a minimum period of 1 year. This is to prevent farmers acquiring direct contact with the land owners to continue with them.
3. They will be given fixed wages and they need not bear any losses but will also not get any part of the profit
4. They will be assigned to nearby lands based on the location where they live

## **Landowners**

1. They are provided with three major services
2. The first service includes land analysis which includes two sub services
  - Crop suggestion
  - Live tracking

There are four plans which the users can go with according to their Requirement

- 1 week- only includes crop suggestion
- 6 month - includes 1 time crop suggestion and live tracking for six months
- 1 year - includes 2 time crop suggestion for two rounds of crop production and live tracking for 1 year

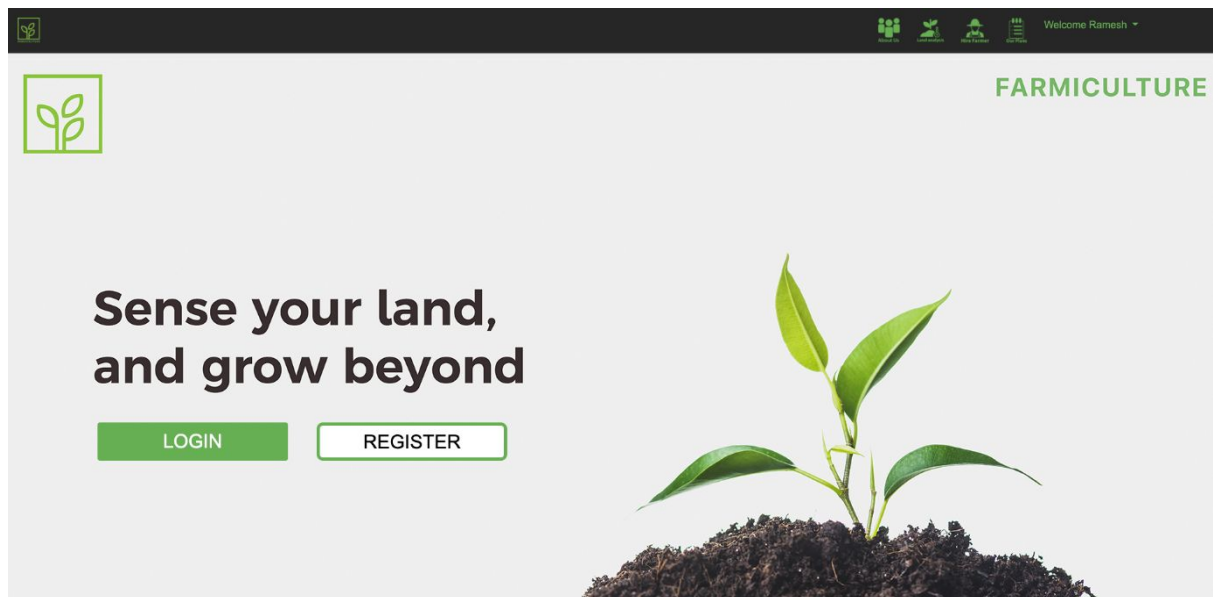
The subscription model depends upon the area of the land given for analysis

3. The second service is Hiring farmers:- When customers subscribe to this service they will be provided with a list of farmers present near their land location and will be segregated according to their experience, age and health condition. The final price for payment is only based on the number of farmers chosen and their demand for salary.
4. The third service is providing Landowners with management services where the management of the production will be taken

care of by us. We will be setting up supervisors to supervise and manage the working and cultivation taking place on their land. The farmers can either be provided by the landowners if he has them or he can use our other service to hire farmers. We will be putting the budget of production and will be providing it to the customer and they will pay for it. The subscription model depends on the duration of the crop, the area of the land and type of crop grown. This service also includes 1 time land analysis as one of its features and the budget will include these.

## FARMICULTURE WEBSITE

### Home page



Landowners can create an account and browse our plans

## OUR PLANS

The screenshot displays the 'OUR PLANS' section of a web application. At the top, there's a navigation bar with a logo, icons for users, crops, and sensors, and a 'Welcome Ramesh' message. The main heading is 'Our Plans'. Below it, the 'Land Analysis Plans' section features four cards: '1 week' (₹1000.00), '1 Month' (₹3000.00, Save ₹1000.00 (Weekly Plan)), '6 Months' (₹13000.00, Save ₹5000.00 (Monthly Plan)), and 'Annual' (₹22000.00, Save ₹14000.00 (Monthly Plan)). Each card lists 'Comprehensive Examination of Land', 'Crop Recommendation', and '24/7 Customer Service'. The '6 Months' and 'Annual' plans are marked as popular with a red ribbon icon. Below this, the 'Hire a Farmer' section has two cards: '6 Months' (₹200.00) and '1 Year' (₹350.00, Save ₹50.00), both offering 'Access to Farmers Data' and '24/7 Customer Service'. The '1 Year' plan is also marked as popular. A small 'localhost:4200/plans' text is visible at the bottom left.






The user can check out the prices of our services and choose them based on their need.

After the user chooses a package, a comprehensive land examination of his property is done. Using the data collected here, the AI model suggests the crops based on the conditions. Real time data from the sensors is being displayed here.

The screenshot shows the 'SENSORS' and 'Suggested Crops' section. On the left, a green sidebar contains a 'PROFILE' section with the user's name 'Ramesh', location 'Chennai', and last checked date 'Oct 2, 2020'. The main area is titled 'SENSORS' and displays four sensor readings: 'HUMIDITY 95.00%', 'Moisture 10%', 'Temperature 29.30°C', and 'pH 0'. Below the sensors, the 'Suggested Crops' section states '34 Plants were found matching your request' and shows a grid of six plant cards. Each card includes a photo, the plant name, type, bloom time, price, match percentage, and a 'Get Info' button. The plants listed are Washington Hawthorn, Lavalley's hawthorn, Coast Strawberry, Woodland Strawberry, Cream Bush, and California Horkelia.


Plant Name	Type	Bloom	Price	Match
Washington Hawthorn	Tree (deciduous)	Spring	₹978.00	14.29%
Lavalley's hawthorn	Tree (deciduous)	Summer	₹949.00	14.29%
Coast Strawberry	Perennial	Winter	₹455.00	14.29%
Woodland Strawberry	Perennial	Spring/Summer	₹1,785.00	14.29%
Cream Bush	Shrub (deciduous)	Spring/Summer	₹1,659.00	14.29%
California Horkelia	Perennial	Spring	₹1,530.00	14.29%

On selecting a crop, it's info is displayed.



Welcome Ramesh






Washington Hawthorn's Details



Latin Name Crataegus phaenopyrum	Common Name Washington Hawthorn	Family Name Rosaceae	Plant Type Tree (deciduous)
Bloom Time Spring	Flower Color White	Size at Maturity 13-24 ft	Suitable Site Conditions Sun or Part Shade
Soil Type Clay or Loam or Sand	Water Needs Low	Appropriate Location Sidewalk	Market Price 978

Additional Information  
Subject to pests, has thorns, may be susceptible to fireblight.

After selecting the crop, the user gets to hire a farmer.



Welcome Ramesh

Hire A Farmer

Choose Budget (in ₹)

Min

Max

Go


Sort By

Enter Location


Experience

Age


Gender




Arvind  
Gender: Male  
Age: 42 years  
Price: ₹1,000.00  
[Get Info](#)




Rohan  
Gender: Male  
Age: 24 years  
Price: ₹10,000.00  
[Get Info](#)




Raju  
Gender: Male  
Age: 45 years  
Price: ₹9,000.00  
[Get Info](#)



Arvind  
Gender: Male  
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Rohan  
Gender: Male  
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Raju  
Gender: Male  
Age: 45 years  
Price: ₹9,000.00  
[Get Info](#)

## Farmer info

**Raju's Details**



Name: Raju  
Gender: Male  
Age: 45  
Experience (in years): 25  
Expertise: Working in Rice and Wheat Fields  
Located in (city): Chennai  
Located in (State): Tamil Nadu

Demanding Amount: ₹9,000.00 per Month


[Enquire](#)  
[Hire Now](#)

After hiring the farmer, a payment portal is displayed.

**Complete your Order**

Your order will be charged in INR      Order Total: ₹13000

**Payment Information**  
Enter your credit card details below. We accept Visa, Mastercard, discover, and American Express.



Number:   
Cardholder's Name:   
Expiration Date:

[Cancel](#) [Place Order](#)

The user can access data of his/her current and expired subscriptions at all times

Your Plans			
Hire a Farmer (Annual)	₹350	Expires On: 20 December, 2020	Active
Land Analysis (Annual)	₹22000	Expires On: 20 December, 2020	Active
Hire a Farmer (6 Months)	₹200	Expired On: 20 December, 2019	Expired
Land Analysis (6 Months)	₹13000	Expired On: 20 December, 2019	Expired

## About us



Welcome Ramesh ▾



FARMICULTURE

# Sense your land, and grow beyond



### About Us

At Farmiculture, we aim to help entrepreneurs make the most of their land using scientific analysis techniques and present them with all the technical help they need to manage their land. Our use of state of the art on-site equipment, combined with an AI model to predict ideal crops is all aimed at using data and technology to help consumers grow their yield. We also believe in giving back to society. As our contribution, we help farmers find employment. For every billing of our commercial service, we devote a part of the profit generated to maintain a database of farmers unemployed from the region in question and its surroundings. We then use this collected information to generate suggestions for our consumers, to help them create a workforce for the land they have registered with us.

### For Society

Agriculture is the most important sector of the country's economy, and our farmers are it's most important entity. Farmers are the cornerstone of the Farmiculture Project. Keeping in mind the many precarious conditions they are up against, this service was created to break shackles and engineer solutions. In an attempt to counter the existing, diminishing culture of non-land owning farmers not finding work, we provide an efficient solution that benefits everyone involved.



*"This is the future of agriculture."* - Madhur Padavala



### The Consumer's Perspective

At Farmiculture, it is our passion to achieve the best of results. We truly believe in the power of technology, and it is our mission to empower entrepreneurs and landowners to achieve the very best. From the moment your land is registered with us, you can sit back and relax, as our engineering team first deploys the automation that comprehensively surveys the terrain. This data is then fed into our advanced AI model, which is trained to deliver precise suggestions to consumers on the most ideal crops. We've tried to make this process as smooth as possible, from start to finish, with this website, an all-in-one workstation that caters to all your needs.



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