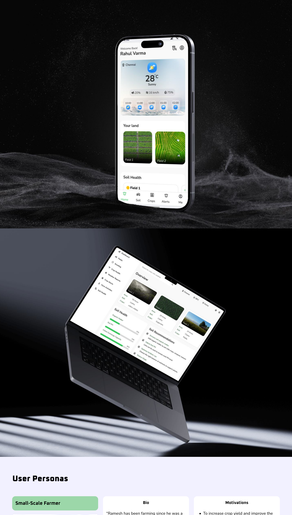


User Personas

Small-Scale Farmer

Name: Ramesh Kumar
Age: 40
Farm Size: 3 Acres
Location: Tamil Nadu
Main Income: Agriculture

Bio

"Ramesh has been farming since he was a young boy, inherting the farm from his father. He grows rice and vegetables for his consumption. He struggles with limited access to advanced farming methods and technology, but he is eager to improve his farming practices."

Goals and Needs

- Easy access to weather forecasts, pest control tips, and crop management information.
- Ability to track daily tasks and activities (planting, irrigation, fertilization, harvesting) in his native language (Tamil) and Hindi interface.
- Information on local government schemes, subsidies, and crop insurance.
- Budgeting tools to manage farm expenses, including seeds, fertilizers, and labor costs.

Motivations

- To increase crop yield and improve the quality of his harvest.
- To access government schemes and financial aid for farmers.
- To have better control over his farm's resource usage (water, fertilizers).

Challenges

- Limited internet connectivity in remote areas.
- Lack of access to proper advisory services and reliable market prices.
- Financial constraints and difficulty in adopting new farming technologies.

App Features Desired

- Offline mode for low-connectivity areas.
- Simplified task lists with notifications for crop care.
- Voice-to-text support in local dialects.
- Crop yield predictions and real-time market price updates.
- Easy access to agricultural loans and subsidies.

User Personas

Large-Scale Farmer

Name: Arshdeep Singh
Age: 55
Farm Size: 100 Acres
Location: Bhopal
Main Income: Agriculture

Bio

"Arsh owns a large farm that grows a variety of crops such as cotton, sugarcane, and groundnuts. He also runs a processing unit for his produce. He is a tech-savvy farmer leveraging technology into his farming practices to increase efficiency and streamline operations. However, managing everything from crop production to supply chain remains a challenge."

Goals and Needs

- End-to-end farm management (planning, operations, and monitoring).
- Real-time data and analytics for decision-making (soil moisture, crop health).
- Streamlined supply chain management and integration with wholesalers.
- Accurate financial forecasting and profit analysis.

Motivations

- To increase operational efficiency and optimize farm management.
- To make data-driven decisions that boost profitability.
- To maintain a competitive edge by adopting advanced technologies.

Challenges

- Complexity in managing a large-scale farm and workforce.
- Need for real-time data for precise decision-making.
- Balancing production with market demand and prices.

App Features Desired

- Integrated dashboard for monitoring farm activities.
- Automated reminders/tasks for crop yield forecasting and labor management.
- Supply chain integration, including inventory tracking.
- Workforce management and task delegation.
- Access to agronomic advisory and market linkages.

Major Challenges of Targeted users

Limited Access to Technology
Low-tech adoption and internet connectivity issues in rural areas, limiting access to modern farming tools and resources.

Resource Management
Difficulty in efficiently managing resources like water, fertilizers, and labor during peak seasons.

Financial Constraints
Limited access to credit, high input costs, and difficulty in adopting new technologies due to financial limitations.

Market Access
Lack of direct access to markets, fair pricing, and challenges in connecting with buyers.

Farm Management
Managing a large-scale farm with multiple crops, labor, and operational complexities can be overwhelming and time-consuming.

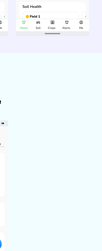
Modern Farming Practices
Challenges in ensuring that farmers adopt the latest scientific farming techniques and technology.

Labor Shortages
Difficulty in hiring skilled labor, especially during peak farming seasons, affecting productivity.

Field Monitoring Limitations
Difficulty in hiring skilled labor, especially during peak farming seasons, affecting productivity.

Real-Time Data Needs
Difficulty in accessing real-time data for precise decision-making on irrigation, pest control, and yield prediction.

Summary - Challenges

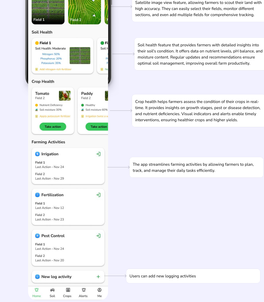


Farmers and agricultural professionals in India face several challenges that hinder their ability to improve productivity and streamline operations. Limited access to advanced farming technologies and modern farming methods makes it difficult for many farmers to adopt modern farming practices. They also struggle with managing resources like water, fertilizers, and labor, especially during peak seasons.

Reaching markets and securing fair prices for their produce remains a major concern. Large-scale farmers face complexities in managing multiple crops and a workforce while ensuring efficient resource allocation and adoption of advanced tools and information. Overcoming these challenges requires accessible, affordable, and easy-to-use technological solutions that cater to the unique needs of farmers across different regions.

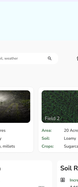
FarmConnect App Designs

Homepage



FarmConnect App Designs

Irrigation Activity page



FarmConnect App Designs

Search bar and the notifications alert

simple and intuitive weather module tailored for farmers, displaying today's weather at a glance, including temperature, rainfall chances, and wind speed. The forecast section provides a detailed upcoming days outlook, helping users plan their agricultural activities efficiently.

Satellite image view feature, allowing farmers to scout their land with high accuracy. They can easily select their fields, monitor different sections, and ease add multiple fields for comprehensive tracking.

Soil health feature that provides farmers with detailed insights into their soil's condition. It offers data on nutrient levels, pH balance, and moisture content. Regular updates and recommendations ensure optimal soil management, improving overall farm productivity.

Crop health helps farmers assess the condition of their crops in real-time. It provides insights on growth stages, pest or disease detection, and nutrient deficiencies. Visual indicators and alerts enable timely interventions, ensuring healthier crops and higher yields.

The app streamlines farming activities by allowing farmers to plan, track, and manage their daily tasks efficiently.

Users can add new logging activities

Dashboard Design

Thank you for the opportunity

Working on this task has been insightful, and I'm eager to apply these learnings in future projects