



Agro Connect

Smart E-Farming





Problem Statement

Challenges Faced by Farmers

Farmers struggle with unpredictable weather, inefficient irrigation, pest threats, and lack of access to market data — leading to low productivity and income.





Our Solution

Agro-Connect is a web-based platform that helps farmers monitor crops, automate irrigation, and make informed selling decisions using data and technology.



01

 Weather Forecasting
 Smart Notifications

02

 JUL 17 Farming Reminders
 Automated Irrigation System

03

 Market Insights & Price Trends
 Government Schemes Dashboard

04

 Buyer-Seller Marketplace



How It Works

- 1.** **Monitor:** Soil sensors detect real-time conditions
- 2.** **Analyze:** System evaluates when to water
- 3.** **Act:** Automated irrigation is triggered
- 4.** **Inform:** Market & crop data updates guide decisions
- 5.** **Assist:** UI dashboard shows daily farming tasks





Impact & Benefits

Empowering Farmers, Driving Change

- ✓ Improved crop yield through data-driven care
- ✓ 40% water savings with smart irrigation
- ✓ Direct access to fair pricing and buyer networks
- ✓ Supports sustainable & scalable farming practices

Future Roadmap



- Integrate real-time IoT sensors
- AI-based irrigation & crop suggestions



Multi-language rural accessibility



SMS/WhatsApp alerts for offline users



Farmer onboarding & help system

Web Platform Overview

Smart UI, Smart Decisions

An intuitive web app with card-based UI for weather, reminders, alerts, and market prices.
Accessible on any device - even in rural regions.

Home | Smart Crop Monitoring | Automated Irrigation | Market Insights | About Us | Contact Us

Market Insights

Stay informed with the latest price trends, government schemes, and crop demand forecasts to make smarter farming decisions.

- Crop Price Trends**
Check the latest crop prices, changes, and insights for key produce.
[View Details](#)
- Demand Forecast**
Know which crops will be in high demand based on market projections.
[View Forecast](#)
- Government Schemes**
Explore subsidies, MSP updates, and schemes like PM-KISAN and more.
[Explore Schemes](#)
- Buyer-Seller Connect**
Connect directly with buyers and mandis to sell your crops smartly.
[Get Started](#)

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Agro Connect - Smart E-Farming

Empowering farmers with cutting-edge technology to enhance productivity, conserve resources, and foster sustainable agricultural practices for a brighter future.

[Learn More](#)

What We Offer

- Smart Crop Monitoring**
Track your crop health in real-time using sensors and analytics for better yield.
[Explore](#)
- Automated Irrigation**
Optimize water usage with intelligent irrigation systems powered by AI.
[Discover](#)
- Market Insights**
Stay ahead with live market data, crop trends, and smart pricing tools.
[View Trends](#)

Drive Mammals

- Improved yield and reduced costs using data-driven decisions.
- Conserved water through optimized irrigation strategies.

Automated Irrigation

What is Automated Irrigation?
Automated irrigation is a smart agricultural technique that automates the watering process using sensors, timers, and controllers. It ensures optimal water usage, saving both water and labor costs.

How It Works

- Step 1: Soil Monitoring**
Soil moisture sensors detect dryness levels.
- Step 2: Data Analysis**
Controllers analyze data to determine watering needs.
- Step 3: Automated Watering**
Water is released via pipes based on conditions.

Types of Automated Irrigation Systems

- Drip Irrigation: Directs water to plant roots slowly and precisely.
- Sprinkler Irrigation: Mimics rainfall for even water coverage.
- Sensor-based Systems: Activate watering based on real-time data.
- App-controlled Systems: Use mobile apps to schedule and monitor irrigation remotely.

Benefits of Automated Irrigation

- Reduces water wastage
- Saves labor and operational costs
- Improves crop yield and health
- Real-time monitoring and control
- Eco-friendly farming solution

Smart Kit Components

- Soil Moisture Sensors

Tech Stack

- 1. Frontend: HTML, CSS, JS**
- 2. Backend: Node.js + Express.js**
- 3. APIs: Weather, Market, Notification**
- 4. Security: Signup/Login with user-based dashboard**

THANK YOU!

**Together, let's cultivate innovation and grow a smarter,
sustainable future for every farmer.**

