



# AgriNINE11

Smart Agricultural Decision Support System

Launch Academic Project | 2026

# AgriNINE11

## Smart Agricultural Decision Support System

Using AI to support smarter and more sustainable farming decisions.

▶ Presented By:  
**Group 1**

System Demonstration





# Introduction



## AgriNINE-11 Project Team

- Muhd Affiq (A23MJ5083)
- Gana Dokmak (A23MJ0004)
- Muntasir Rahman (A23MJ0013)
- Maarof Saqr (A23MJ4006)
- Ma Yiman (A23MJ4005)
- EL hassen khattary (A23MJ4002)

## Project Overview

AgriNINE-11 is a smart agricultural decision support system developed as an academic project. The system is designed to assist farmers and agricultural stakeholders by analyzing farm-related data and providing useful recommendations for better decision-making.

## Project Background

This project was developed by a team of students with the aim of applying artificial intelligence concepts to real-world agricultural challenges. AgriNINE-11 focuses on improving farming efficiency, reducing risks, and supporting sustainable agricultural practices.



# Vision & Mission

## ► Project Vision

ooo

To support smarter agricultural decision-making by using artificial intelligence to analyze farm data and provide clear, useful recommendations that improve productivity and sustainability.

## ► Project Mission

ooo

To develop a simple and user-friendly agricultural system that applies AI techniques to assist farmers in crop selection, soil analysis, and farm management while reducing risks and improving efficiency.



# Problem Statement



## Current Situation

Many farming decisions are still based on experience or manual observation, with soil, weather, and crop information reviewed separately.

## Main Issues

This often causes delayed actions, inefficient use of resources, and higher risks to crop health and yield.



# STATUS QUO

VS

# AGRININE-11

## Current Practice (Status Quo)

- Farming decisions based on experience or guesswork
- Soil and weather data reviewed separately
- Problems detected only after they become serious
- No clear prioritization of actions

## AgriNINE-11 System

- Data-driven decisions using AI logic
- Integrated soil, weather, and crop analysis
- Early warnings for risks such as pests or poor soil health
- Clear, prioritized recommendations for action

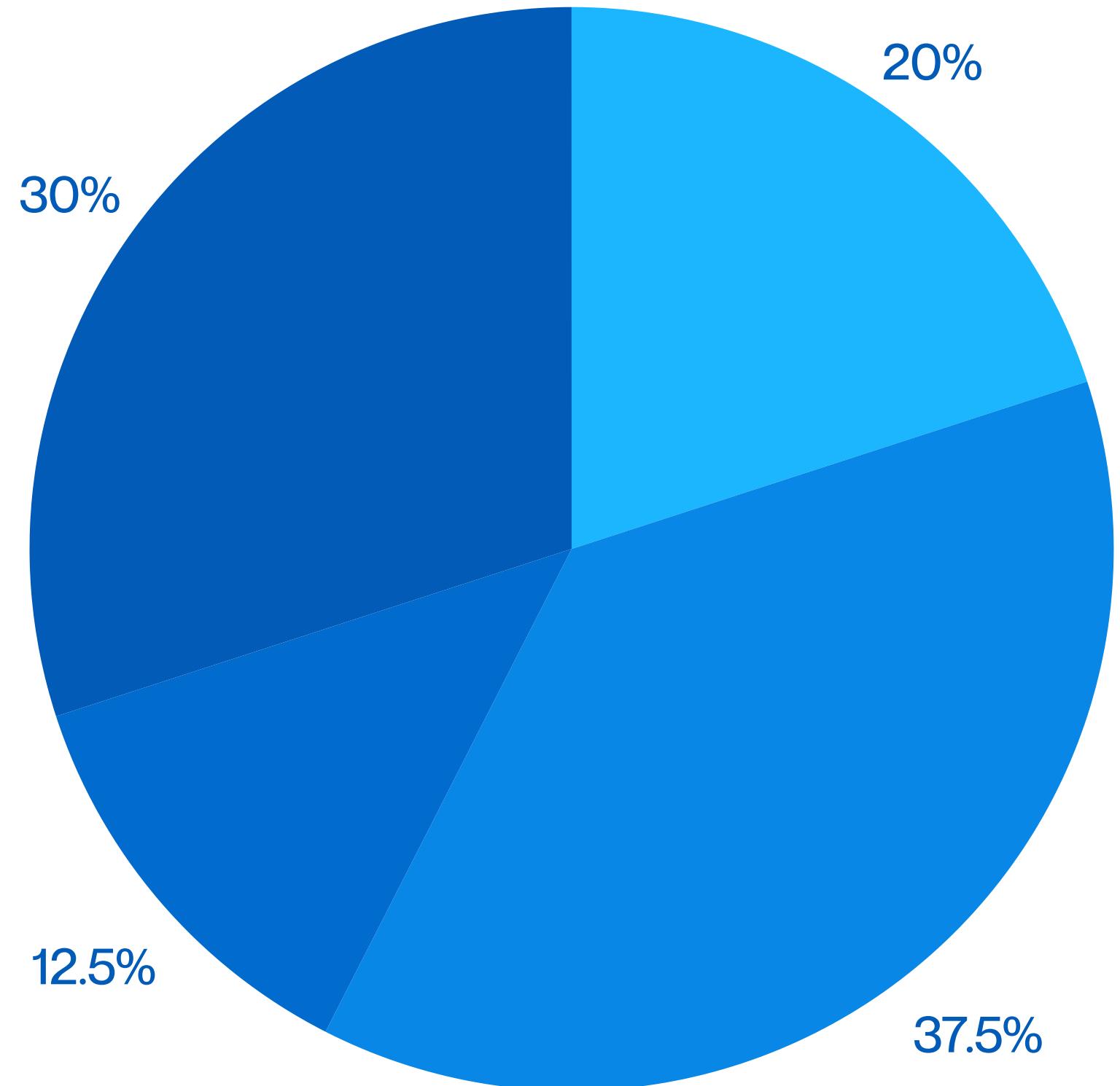


# AgriNINE11

Smart Agricultural Decision Support System

# Target Users

- 30% > Small-Scale Farmers
- 12.5% > Agricultural Students
- 37.5% > Agricultural Advisors
- 20% > Research & Academic Use





## Our Values

- 1 Sustainability
- 2 Innovation
- 3 Accuracy & Quality
- 4 Farmer Support



# AgriNINE11

Smart Agricultural Decision Support System

# System Functions

**1** Crop Recommendation Support

**2** AI-Based Decision Support

**3** Soil Data Analysis

**4** Sustainable Farming Insights

**5** Yield and Planning Assistance

**6** Environmental & Water Monitoring

Select Crop Type:

Corn

Corn - Current Status

Growth Stage

**Growing**

8 leaves visible

Health Score

**91%**

Excellent

Expected Yield

**185 bu**

#### What is Growth Stage?

Growth Stage tells you what phase your crop is in - from seedling to harvest. This helps determine the right time for watering, fertilizing, and pest control.

Current Stage: Your corn plants now have 8 leaves. This is a good time to add fertilizer because the plants are growing fast and need lots of nutrients.

#### What To Do Now

Add Fertilizer: Apply 45 lbs of nitrogen fertilizer per acre within the next week. Your corn is at the perfect stage to absorb nutrients.

Check for Pests: Look for corn rootworm beetles on your plants. If you find more than 1 beetle per plant, you may need pest control.

Water Management: Keep soil moisture between 65-75%. In about 2-3 weeks, your corn will need even more water.

Harvest Planning: Expected harvest time is late September (about 100 days from when you planted).

Agricultural Decision Support System

Priority Actions

The recommended actions for your farm this week are:

- Check for pests in your corn fields.
- Apply 45 lbs/acre of nitrogen fertilizer to your corn.
- Monitor soil moisture levels.

Farm Overview

Soil Health Score	8.4/10
Excellent	
Weather Conditions	72°F
Optimal	

Today's AI Recommendations

- Irrigation Advisory:** Based on current soil moisture (68%) and upcoming weather forecast, consider reducing irrigation by 15% over the next week to prevent water waste.
- Crop Management:** Nitrogen levels in Field A are trending lower. Recommend application of 45 lbs/acre nitrogen fertilizer.
- Pest Alert:** Monitor soybean fields closely. Favorable conditions for aphid activity detected. Monitor soybean fields closely.



**LET'S VIEW  
THE SYSTEM**



# AgriNINE11

Smart Agricultural Decision Support System

# Thank You

For Your Time and Attention

