

# Smart Sowing AI: Crop & Profit Advisor

Innovating for a Sustainable Future





# Agriculture & AI

- AI-powered crop recommendation and sowing decision system for smart farming and profitable harvests

TEAM DRS

# Why Smart Farming is Needed

- Unpredictable rainfall affecting sowing time
- Poor seed quality reducing crop yield
- Pest infestations harming crops
- Difficulty choosing crops with high market value





# Project Goals

- Predict rainfall and weather conditions
  - Analyze seed quality
  - Evaluate pest and insect risk
  - Recommend suitable crops based on soil, climate, and market trends
  - Provide a risk score and final sowing decision
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# Input that we should provide

- Temperature (°C)
- Humidity (%)
- Soil pH
- Wind Speed (km/h)
- Pressure (hPa)
- Seed Quality Score (0–100)



# How the App Works

- Rain Prediction → Random Forest ML model
- Pest/Insect Risk → Rule-based evaluation
- Seed Quality → Score-based assessment
- Crop Recommendation → Environmental matching
- Market Analysis → Crop price & demand ranking
- Risk Calculation → Safe / Moderate / High Risk



# What Farmer Gets

- Rain Prediction: Rain / No Rain
- Pest Risk: High / Low
- Seed Quality: Good / Poor
- Recommended Crops
- Best Crop for Profit
- Total Risk Score
- Final Sowing Decision
- Fair Market Price



# Advantages

- Helps farmers plan sowing at the right time
- Suggests profitable crops
- Reduces losses from weather, pests, or poor seeds
- Makes farming data-driven and efficient
- Can be extended to mobile apps



# Future Scope

- Real-time weather API integration
- Image-based seed quality detection
- Live market price API for dynamic recommendations
- Fertilizer & irrigation suggestion
- Mobile app deployment
- Hackathon Demo Tip:
  - Show input → AI + Market logic → Outputs
  - Highlight risk score and best crop





thank you