

# The First Agricultural Intelligence Platform

Ag research, operational optimization, and back-office work automation assistant for farmers and ag professionals, powered by world leading Ag-Intelligence Engine



# FarmMind Announced as Farm Bureau Ag Innovation Challenge Winner



**Bringing all the major aspects of running an Ag Operation in to one unified platform**

**Using modern tech and AI methods to improve daily workflows and derive insights**

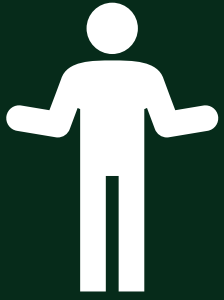
**Using modern tech to optimize operations and automate paperwork**

Agriculture is one of America's most **important** industries.

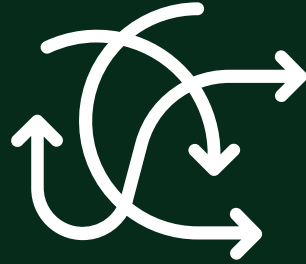
It's also one of the most **complex**.



1000s of \$\$\$  
decisions per  
season



1000s of \$\$\$  
decisions per  
season



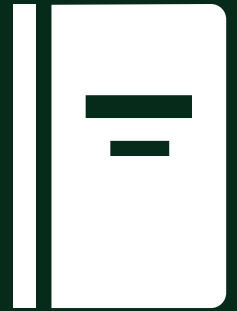
Constant  
regulatory change



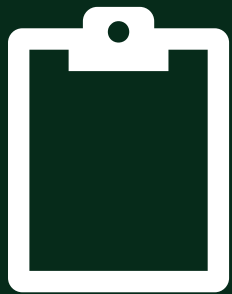
Environmental  
Impacts



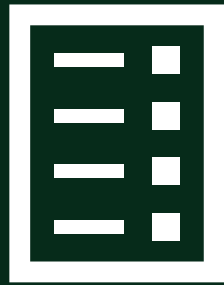
Misapplication  
risks



Annual new research



Field Notes



Required  
Documentation



Valuable time-  
critical choices



New product  
labels

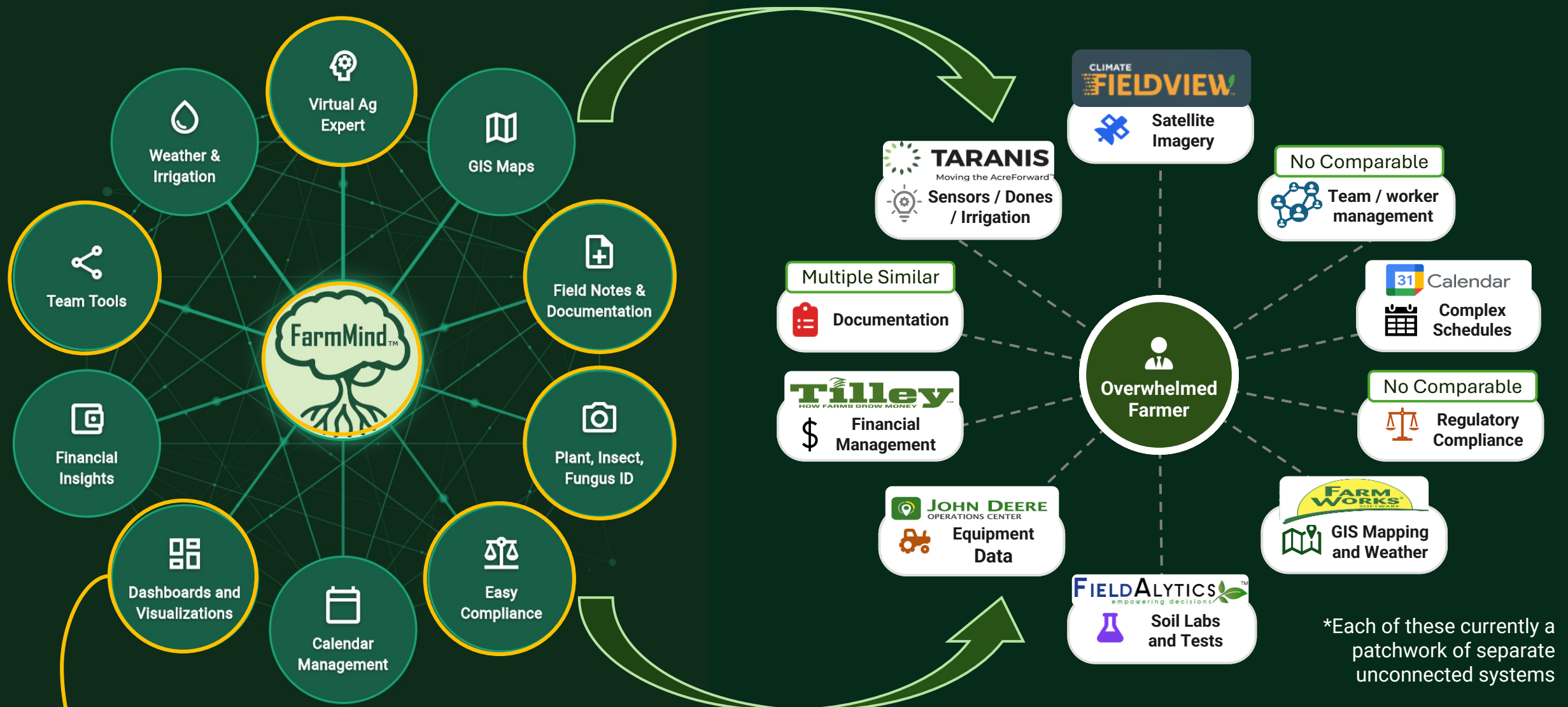


Razor thin  
margins with  
costly mistakes



**At the heart of it all, our proprietary  
Ag Intelligence Engine...**

# ...powers one platform that entirely replaces or integrates with legacy systems

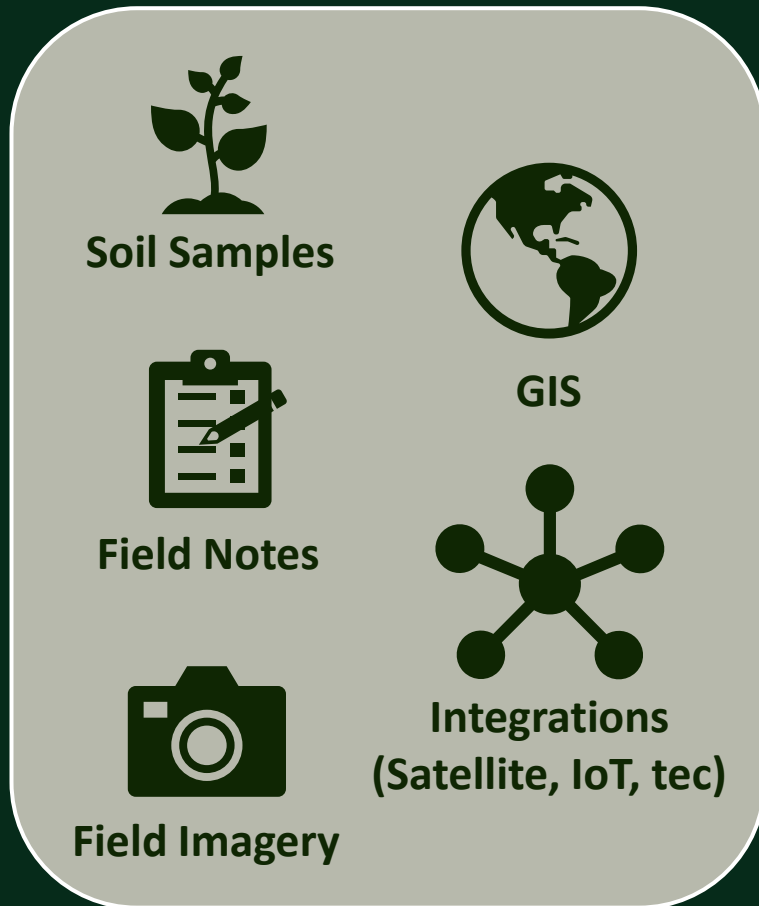


**While providing whole new AI-powered capabilities**

\*Each of these currently a patchwork of separate unconnected systems

# FarmMind cuts through the noise: saving time, reducing risks, optimizing operations, and increasing profits.

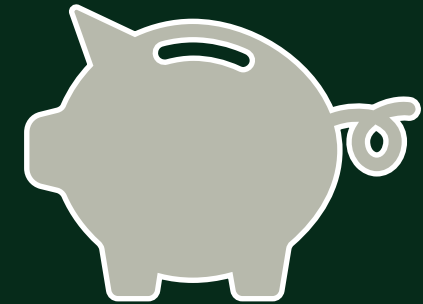
## Tracks



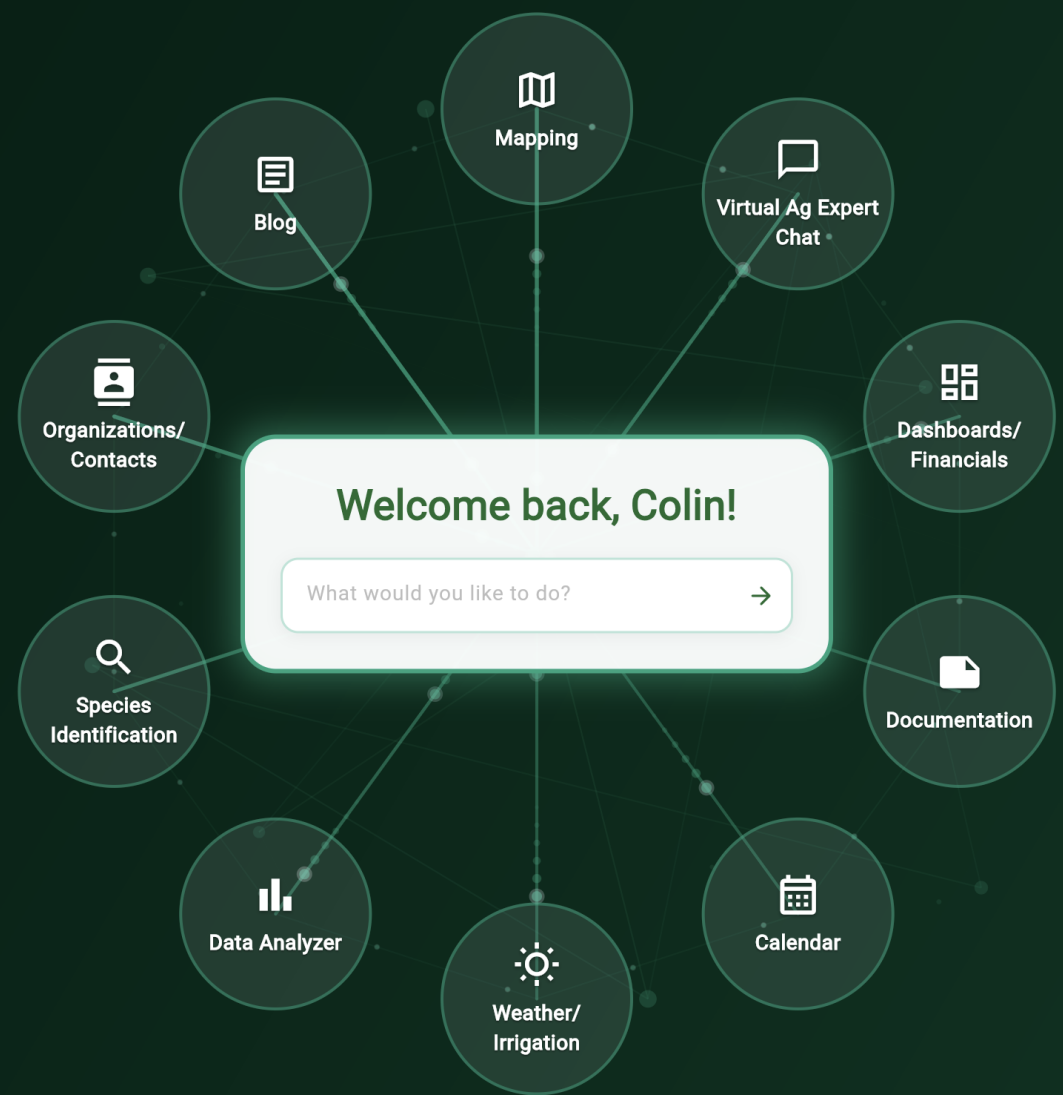
## Provides



## Saves Cost & Time



- Home
- Map
- Research
- Documentation
- Dashboards & Finance
- Calendar
- Weather & Irrigation
- Data Analyzer
- Identification
- Organizations
- Blog



# Welcome back, Colin!

What would you like to do today?



### Calendar

View your platform activity history and manage tasks.



### Weather/Irrigation

Check weather conditions for any location on the map and create irrigation systems and events.



### Data Analyzer

Visualize your agriculture/sensor data with heat maps, charts, and graphs.



### Species Identification

Identify plants, insects, and fungi. Online or offline.



Home



Map



Research

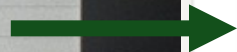


Documents



Dashboards

We are meeting  
at LSU



## Meeting Note

Note type ▾

Choose Fields

Location Template

Import Export

image\_picker\_605FCE5E-890E-4ACD-A6E3-6FD2BA0292F0-13762-000002D97BEFA3BC.jpg Download

### Meeting Location

Feb 10, 10:34 AM ...

We are meeting at LSU

30.4053, -91.1740 ✎ ✕

# %

+ Add section

Add Weather

Tools & Insights ▾

Save Note

### Controls

Folder Mode

+ Folder + Tree

Collapse All

#### Filters

Quick Times

Date Range  
Start Date End Date  
Start Date End Date

Has Attachments

Select Fields

Document Type

#### Document View

Card List

Edit Columns

Manage Data

### Documents

Date (Newest First)

Refresh Multi-Select

Search Note Content Search

- Farmer Joe Application Recommendation**  
02-11-2026 • Created by Colin Raby  
Vantacor @ 1.2oz/acre + 80/20 surfactant @ 1quart/100gal of volume.
- Rice Bores**  
02-10-2026 • Created by Colin Raby  
I just saw some mexican rice bores, need to apply vantacore  
New Field
- Observations**  
02-10-2026 • Created by Colin Raby  
we saw one  
OG Innovation Park field
- Meeting with John Deere**  
02-10-2026 • Created by Colin Raby  
Meeting with some folks from John Deere.  
New Field
- Meeting Note**  
02-10-2026 • Created by Colin Raby  
We are meeting at LSU  
Attachment
- example**  
02-09-2026  
example
- Field Note**  
02-09-2026 • Created by Colin Raby  
I'm testing making field notes where I'm at.  
Brandon workshop
- Example Field Note**  
02-09-2026 • Created by Colin Raby  
This is an example field note. It contains various sections with information.  
Brandon workshop
- example**  
02-09-2026 • Created by Colin Raby

+ Create New

## FarmMind

License: 123456  
8000 Innovation Park Dr.  
2254007267  
rabycolin@gmail.com

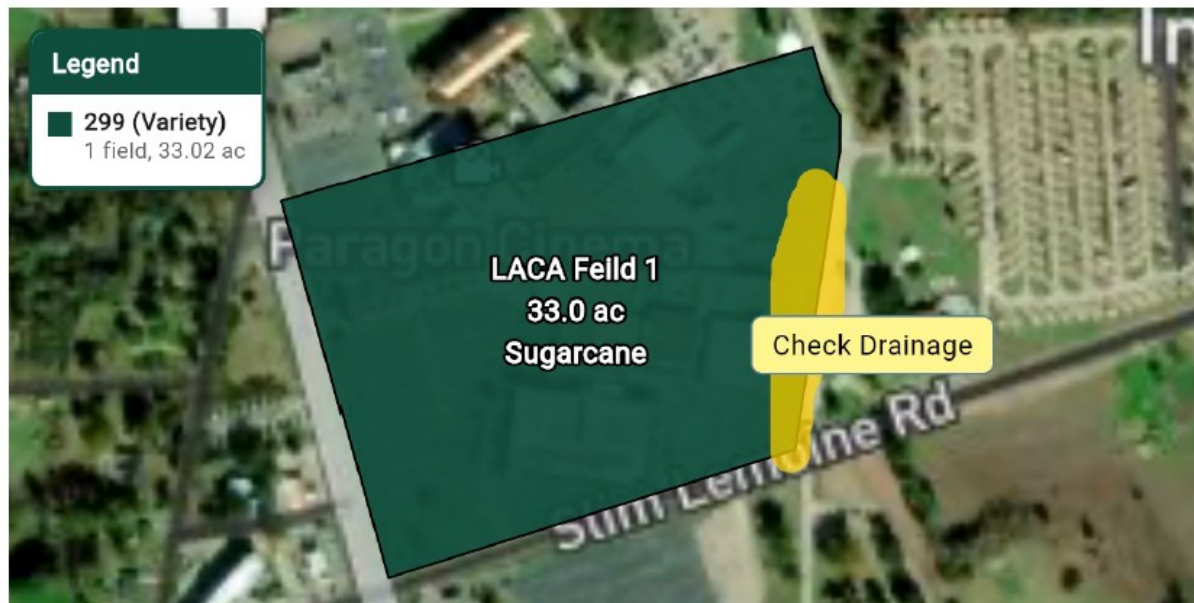
Grower: **Colin**

February 10, 2026

## RECOMMENDATION

February 10, 2026

Farmer Joe Application Recommendation



## RECOMMENDATION

**Item 1** - 1 Field | 33.0 Acres | Sugarcane

Scheduled Dates: Wednesday, 2/11/2026 and Friday, 2/13/2026

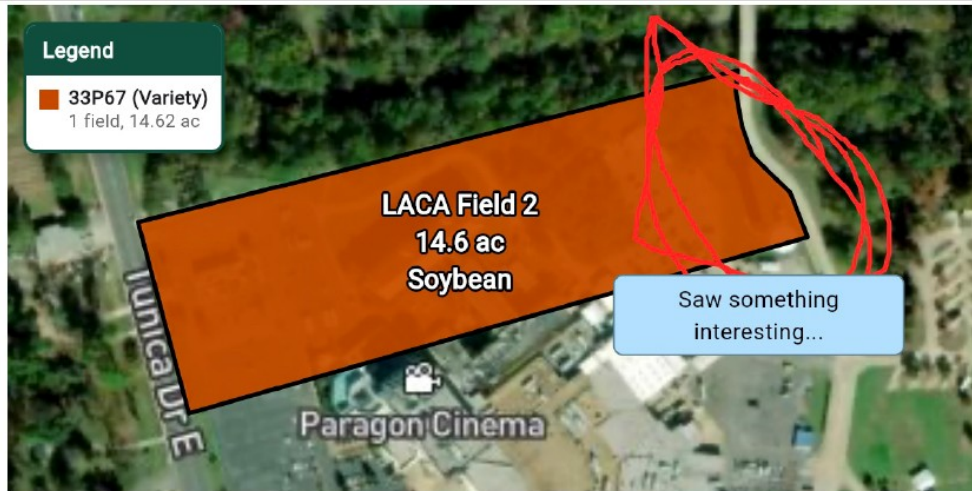
Vantacor @ 1.2oz/acre + 80/20 surfactant @ 1quart/100gal of volume.  
Min 5gal water by air.

### CHEMICAL INFORMATION

Product: E2Y45-848 insect control  
EPA Reg #: 279-9656

Rate: 1.20 fl oz/acre  
Total Amount: 39.6 fl oz  
Method: GROUND  
REI: 4 hours

Fields: LACA Feild 1



## RECOMMENDATION

**Item 2** - 1 Field | 14.6 Acres | Soybean

Scheduled Date: Friday, 2/13/2026

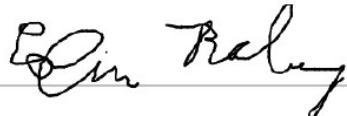
Roundup Powermax 3 @ 32oz/acre + acephate @ 1/2lb ai/acre + bifenthrin @ 6oz/acre

### CHEMICAL INFORMATION

Product: MON 301108 Herbicide  
EPA Reg #: 524-659

Rate: 32.00 fl oz/acre  
Total Amount: 468.0 fl oz  
Method: GROUND  
REI: 4 hours

Fields: LACA Field 2

Signature: 

I certify that this document is solely my professional work and that I am fully responsible for its contents.

# February 2026

Month | Week | Day

< Today >

Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2 9 4 2	3 6 4 2	4 1 3 1	5 3	6 1	7 4 1
8 2 2	9 7 1	10 5 4	11 1 1 1	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
1	2	3	4	5	6	7
8	9	10	11	12	13	14

## Tasks

Show Completed

- Present at LACA  
Feb 11, 2026

+ Add

# February 2026

Month Week Day

< Today >

Sun	Mon	Tue	Wed	Thu	Fri	Sat
1	2 9 4 2	3 6 4 2	4 1 3 1	5 3	6 1	7 4 1
8 2 2	9 7 1	10 5 4	11	12	13	14
15	16	17				21
22	23	24				28
1	2	3				7
8	9	10				14

**11 Wednesday** 3 events ×

**Tasks (1)**

- Present at LACA Pending >

**Field Notes (1)**

- Sweep Results >


**Recommendations (1)**

- Farmer Joe Application Recommendation >


**Tasks** Show Completed

- Present at LACA Feb 11, 2026 ...


Select Fields




Identification



Export



what is the max application rate of dicamba 




**Pesticide Analysis** Expand 






**Safety Regulations Analysis** Expand 





Here is the most up-to-date, regulatorily compliant guidance on the maximum application rate of dicamba in Louisiana for 2026, including formulation-specific and regulatory details: 

**Regulatory Status:**

- Yes, dicamba (including Engenia, XtendiMax, and Tavium) may be applied in Louisiana in 2026, but only under strict federal regulations. As of February 2026, Louisiana has not issued additional restrictions beyond federal rules. Applicators must monitor the Louisiana Department of Agriculture and Forestry (LDAF) and LSU AgCenter for any updates.

**Key Federal Regulations for 2026 (Applicable in Louisiana):**

- For over-the-top (OTT) use in dicamba-tolerant cotton and soybean:
  - **Maximum single application rate:** 0.5 pounds acid equivalent (a.e.) per acre.
  - **Maximum number of applications:** 2 OTT applications per year.
  - **Total annual limit:** 1.0 pound a.e. per acre from all dicamba sources (this is a 50% reduction from previous years).
  - **Formulation-specific rates:**
    - Engenia® (5 lb a.e./gal): 12.8 fl oz/A per application; 25.6 fl oz/A per year.
    - XtendiMax® (2.9 lb a.e./gal): 22 fl oz/A per application; 44 fl oz/A per year.
    - Tavium® (premix): See label; only for XtendFlex cotton.

Model: Agriculture Core

other 4L formulations: Not labeled for OTT use in cotton/soybean. For other crops (corn, sugarcane, turf), rates vary (see below).

📍 Louisiana

 Ask Farmer AI a question! 



Here is the most up-to-date, regulatorily compliant guidance on the maximum application rate of dicamba in Louisiana for 2026, including formulation-specific and regulatory details:

#### Regulatory Status:

- Yes, dicamba (including Engenia, XtendiMax, and Tavium) may be applied in Louisiana in 2026, but only under strict federal regulations. As of February 2026, Louisiana has not issued additional restrictions beyond federal rules. Applicators must monitor the Louisiana Department of Agriculture and Forestry (LDAF) and LSU AgCenter for any updates.

#### Key Federal Regulations for 2026 (Applicable in Louisiana):

- For over-the-top (OTT) use in dicamba-tolerant cotton and soybean:
  - **Maximum single application rate:** 0.5 pounds acid equivalent (a.e.) per acre.
  - **Maximum number of applications:** 2 OTT applications per year.
  - **Total annual limit:** 1.0 pound a.e. per acre from all dicamba sources (this is a 50% reduction from previous years).
  - **Formulation-specific rates:**
    - **Engenia® (5 lb a.e./gal):** 12.8 fl oz/A per application; 25.6 fl oz/A per year.
    - **XtendiMax® (2.9 lb a.e./gal):** 22 fl oz/A per application; 44 fl oz/A per year.
    - **Tavium® (premix):** See label; only for XtendFlex cotton.
  - **Clarity® and other 4L formulations:** Not labeled for OTT use in cotton/soybean. For other crops (corn, sugarcane, turf), rates vary (see below).

#### Additional 2026 Federal Restrictions:

- Applications are prohibited if the forecasted high temperature for the day of or after application is 95°F or higher.
- If the forecasted high is 85–95°F, only 50% of untreated acres may be sprayed; the rest must wait at least two days.
- Volatility Reduction Agent (VRA) and Drift Reduction Adjuvant (DRA) are required in the tank mix. The required amount of VRA has doubled to 40 oz/A per application.
- Application window: 1 hour after sunrise to 2 hours before sunset.
- Wind speed: 3–10 mph.
- 240-foot downwind buffer required.
- Aerial application and tank mixing with ammonium sulfate (AMS) are prohibited.
- Annual dicamba-specific training is required for applicators.
- Applications are prohibited during a temperature inversion, within 48 hours of forecasted rainfall that could cause runoff, or if the soil is saturated.
- Dicamba products remain Restricted Use Pesticides; only certified applicators may apply.
- Conservation practices to protect endangered species are required.

#### Non-OTT Uses (Other Crops):

- **Corn:** Clarity up to 32 fl oz/A per application, max 64 fl oz/A/year for tolerant varieties.
- **Sugarcane:** Clarity 16–24 fl oz/A postemergence after layby.
- **Turf:** Clarity 3–32 fl oz/A, max 32 fl oz/A/year.

#### Important Safety and Compliance Reminders:

- Only Engenia, XtendiMax, and Tavium are federally approved for OTT use in dicamba-tolerant cotton and soybean.
- Always read and follow the most current product label and monitor for any additional state-level restrictions.

Read the label carefully and observe all buffer, timing, and weather restrictions.

Complete annual dicamba-specific training.



# Rice Bores

Note type ▾

Choose Fields

See 1 Field ▾

Location  Template 

Import  Export 

Section 1

Feb 10, 3:39 PM ...

I just saw some mexican rice bores, need to apply vantacore

GPS  Pick 

# %

+ Add section

Add Weather 

Tools & Insights 

 Chat

 Visualize

 Folders

Add Map

Save Note



For the application of Vantacore to control Mexican rice borers in sugarcane, the recommended application rate is between 1.2 to 2.5 fluid ounces per acre. However, rates above 2.0 fl oz/acre are not recommended in Louisiana.

Given the field size of 46.69 acres:

- At the minimum recommended rate of 1.2 fl oz/acre, you will need approximately 56.03 fluid ounces of Vantacore.
- At the maximum recommended rate of 2.0 fl oz/acre, you will need approximately 93.38 fluid ounces of Vantacore.
- If you choose to apply at the absolute maximum rate of 2.5 fl oz/acre (though not recommended), you will need approximately 116.73 fluid ounces of Vantacore.

Ensure to apply at the initiation of egg hatch, when small larvae are present, or at the first signs of infestation. The pre-harvest interval is 14 days and the re-entry interval is 4 hours.



Choose Fields

See 1 Field ▾

Location  Template

Import  Export

Section 1

Feb 10, 3:39 PM ⋮

I just saw some mexican rice bores, need to apply vantacore

GPS 

# %

Application Rate

Feb 11, 2:01 AM ⋮

For the application of Vantacore to control Mexican rice borers in sugarcane, the recommended application rate is between 1.2 to 2.5 fluid ounces per acre. However, rates above 2.0 fl oz/acre are not recommended in Louisiana.

Given the field size of 46.69 acres:

- At the maximum recommended rate of 2.0 fl oz/acre, you will need approximately 93.38 fluid ounces of Vantacore.
- If you choose to apply at the absolute maximum rate of 2.5 fl oz/acre (though not recommended), you will need approximately 116.73 fluid ounces of Vantacore.

Ensure to apply at the initiation of egg hatch, when small larvae are present, or at the first signs of infestation. The pre-harvest interval is 14 days and the re-entry interval is 4 hours.

GPS 

# %

+ Add section

 Add Weather

Tools & Insights ▾

AutoSave

Home Insert Draw Page Layout Formulas

Paste

Aptos Narrow (Bod... 12

B I U

G7

	A	B	C	D	E
1	Sample	N (ppm)	P (ppm)	K (ppm)	
2	S01	8	18	85	
3	S02	10	22	95	
4	S03	12	25	110	
5	S04	9	20	100	
6	S05	7	16	90	
7	S06	11	28	120	
8	S07	14	34	140	
9	S08	16	40	155	
10	S09	13	32	145	
11	S10	10	26	125	
12	S11	18	30	135	
13	S12	22	42	165	
14	S13	24	48	180	
15	S14	20	44	170	
16	S15	30	58	210	
17					
18					



Home

Map

Research

Documentation

Dashboards & Finance

Calendar

Weather & Irrigation

Data Analyzer

Identification

Organizations

Blog

Edit Soil Test

Sufficiency Analysis

Field 333 Grid Linked

Field Information

Comments:

Imported from Excel file: example soil test.xlsx

Sample ID	N ppm	P ppm	K ppm	
S01	8	18	85	
S02	10	22	95	
S03	12	25	110	
S04	9	20	100	
S05	7	16	90	
S06	11	28	120	

Analysis Comments

-

**Controls** Clear Layers

Custom Visualization

General Information

Variable: K

Interpolation Controls

IDW Apply

Power:  2.00

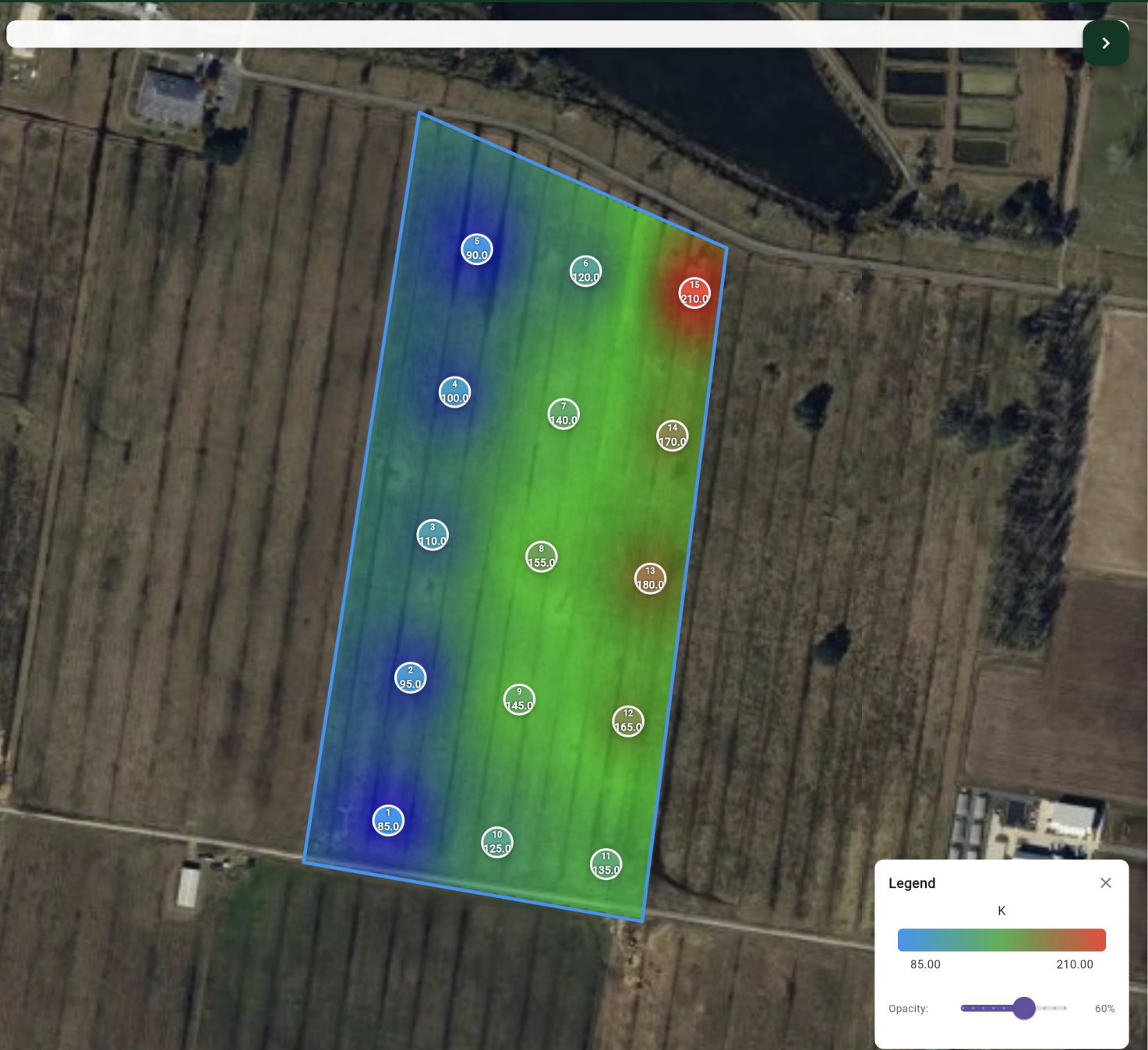
Show Map

Zero-out Missing Variables

Interpolate All Variables

Point Editing

[Field Layer Controls](#)



**Layers & Visualizations**

- Custom Visualizations
- Uploaded Layers
- Field Layers
- FarmMind Layers & Objects
  - Soil Tests (1 tests, 1 grids)
  - Soil Tests (1)
    - Soil Analysis Report (2026-01-26, Soil)
      - Linked Grid
  - Soil Test Grids (1)
    - Unnamed Grid (0 cells, 2026-01-26)
- Irrigation Systems (0 systems)
- Custom Zones (0 zone sets)
- Variable Rate Maps

[+ Create](#)

**Legend**

K

85.00 — 210.00

Opacity:  60%



**Controls** ✕ Clear Layers ^

> Custom Visualization

Field Layer Controls

Show Zones

VR Zones ^

Zone Opacity:  70%

Zone Painter

**Layers & Visualizations** ✕

- Custom Visualizations ▾
- Uploaded Layers ▾
- Field Layers ▾
- FarmMind Layers & Objects ▾
- Variable Rate Maps ▴
  - Seeding + ▾
  - Fertilizer + ▾
  - Pesticide ▾
  - Custom + ▾

**VR Zones** ▾

**11.88 - Seeding - 2026-01-29** ✎ 👁️ 6 Zones

<p><b>Silt Loam (non-irrigated)</b></p> <p>2.15 acres</p> <p>SSURGO Maps: Silt Loam</p> <p>Irrigation Zones: non-irrigated</p>	Seeding Rate	<p><b>Apply Seeding Equations</b></p> <p>Seeding Prices</p> <p>Save</p> <p>Export</p>
	Product	

←


**Equations**


Organization Equations

**Corn (Maize)**  
1 equation

### Equation Details

Equation Name \*  
**T** Seeding For Irrigated Corn





Crop \*  
 Corn (Maize) ✕

Description (Optional)  
 Seeding for irrigated corn and soil type.  


### Equation Logic

*i* The last row is the default row (used when no other conditions match). It cannot be removed.

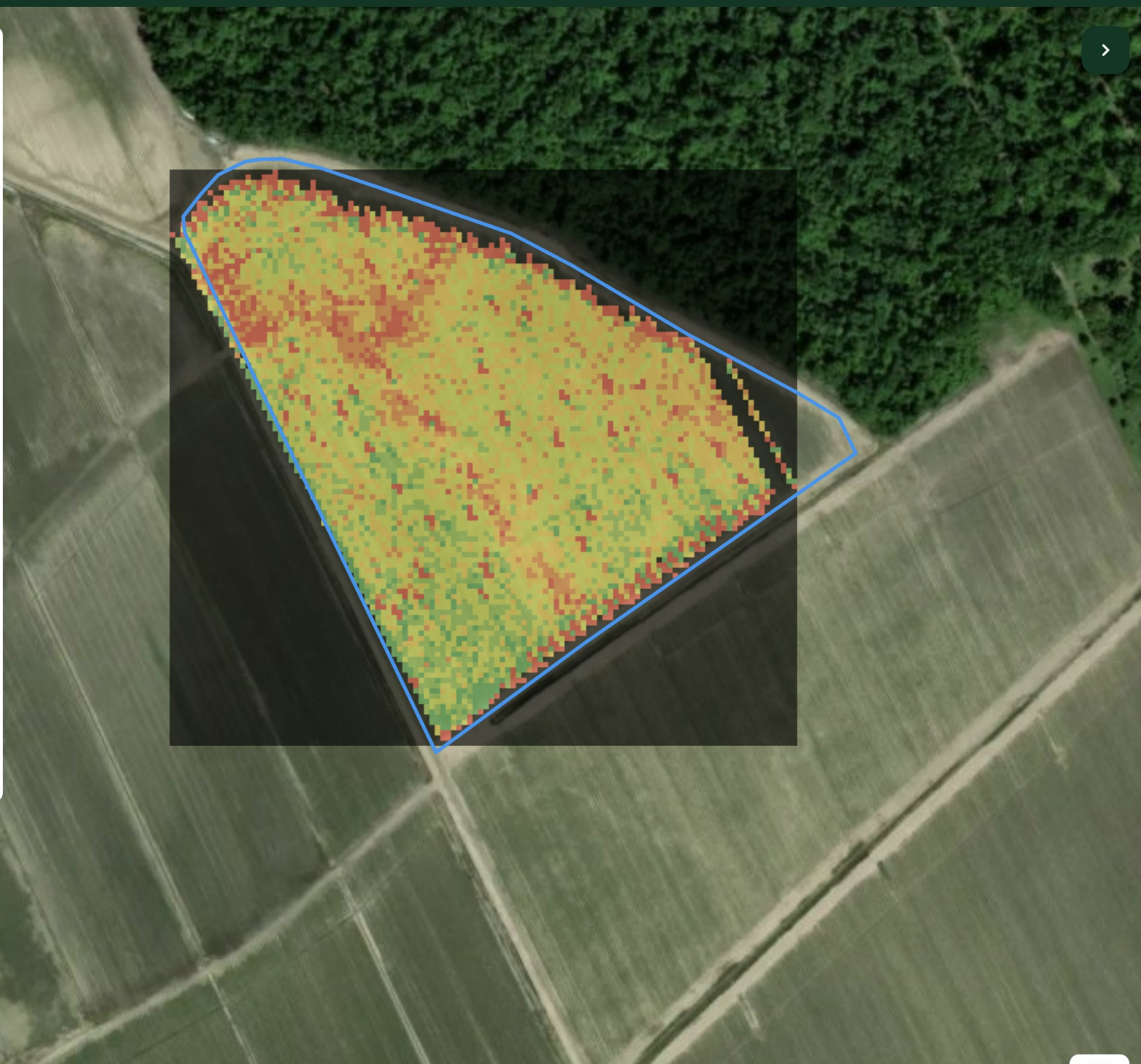
**Equation Table**

Seeding Rate	Soil Texture	Irrigation	Variety/Product	
70000	Sandy loam	irrigated	American Standard	 
60000	Sandy loam	non-irrigated	226	 
50000	—	—	American Standard	

**+ Add Row** **☰ Modify Columns**

**Controls** ✕ Clear Layers ^

- > Custom Visualization
- > **Field Layer Controls**



**Layers & Visualizations** ✕

- Custom Visualizations
- Uploaded Layers
  - Import yield maps, application maps, or other map
- APPLICATION (2)**
  - Lafourche Fallow Ground 2025-09-19 10 attributes
  - Winter application (1) 2025-11-25 10 attributes
- HARVEST (1)**
  - Sugarcane Yield 2025-10-07** 11 attributes
    - DISTANCE**  
Range: 0.01 - 6.62  
Points: 13081
    - SWATHWIDTH**  
Range: 5.58 - 11.15  
Points: 13081
    - VRYLDRCANE**  
Range: 0.00 - 2280.60  
Points: 13081
    - SECTIONID**  
Range: 401.00 - 401.00  
Points: 13081
    - Crop**  
Range: 133.00 - 133.00  
Points: 13081
    - Trash**  
Range: 0.00 - 144.88  
Points: 13081

Controls ✕ Clear Layers ^

> Custom Visualization

> Field Layer Controls



- Layers & Visualizations ✕
- Custom Visualizations ▾
- Uploaded Layers ▾
- Field Layers ▴
- Elevation ▾
- USDA SSURGO ▾
- Soil Parameters (SoilGrids) ▾
- Vegetation Vigor & Growth ▴
- NDVI** ⊙
- EVI ⊙
- GNDVI ⊙
- SAVI ⊙
- MSAVI2 ⊙
- Chlorophyll & Nitrogen ▾
- Biomass & Canopy Structure ▾
- Water & Moisture Stress ▾
- Stress, Senescence & Residue ▾
- FarmMind Layers & Objects ▾
- Variable Rate Maps ▾

NDVI ⚙️ Gradient

NDVI

Opacity:  60%

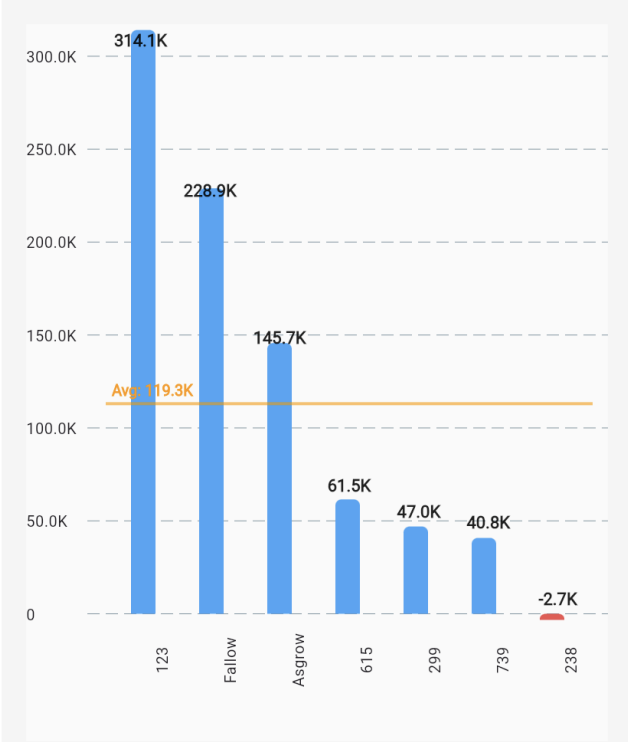
0.70-1.00	2%	Closed canopy
0.65-0.70	35%	Very dense canopy
0.60-0.65	32%	Dense-very dense
0.55-0.60	12%	Dense canopy
0.50-0.55	9%	Good-dense canopy
0.45-0.50	4%	Good canopy

# Field Leaderboard

Table Export Options Refresh

2025 Organize by: Variety Subdivide by: None

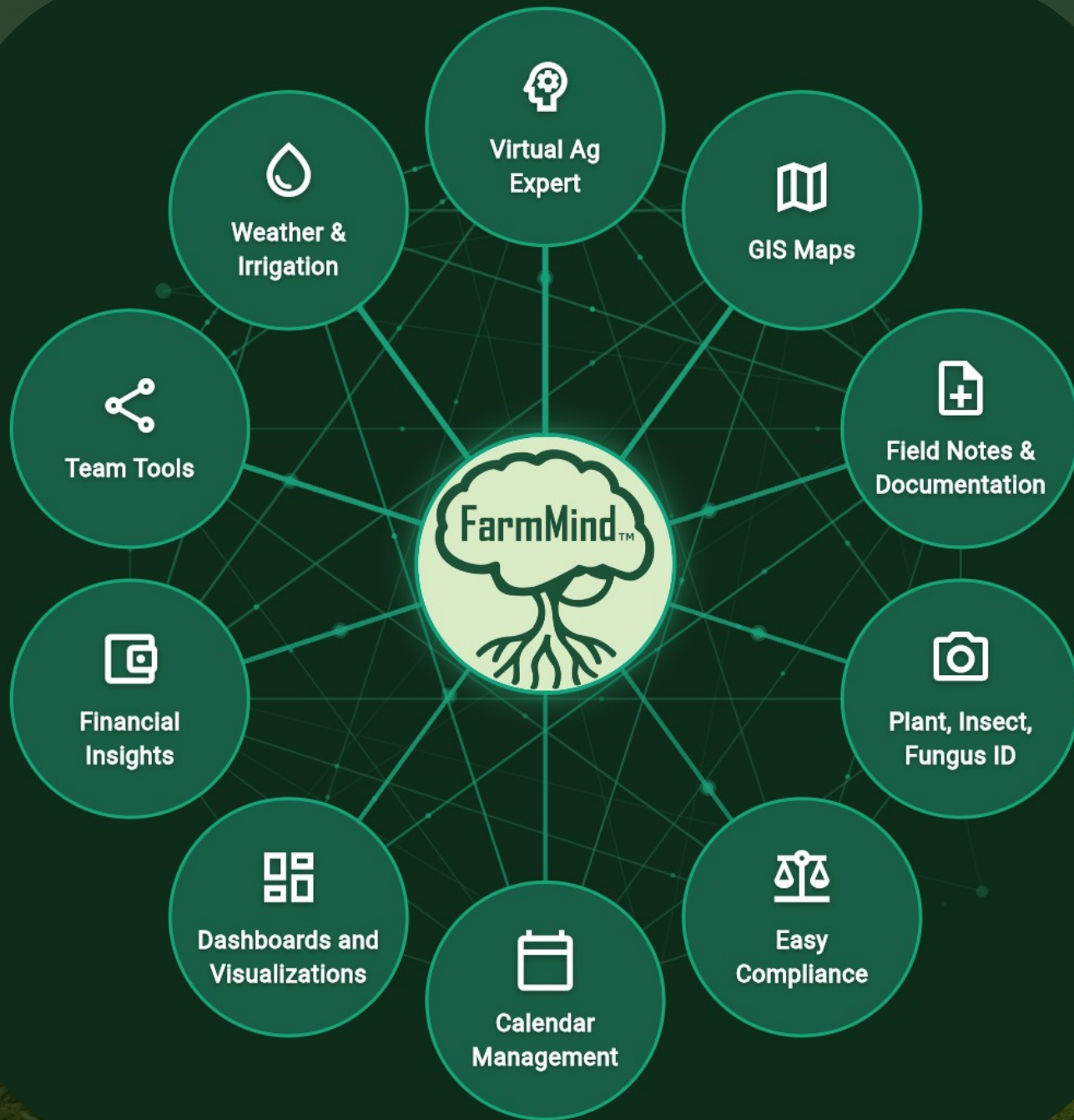
Show: Target Yield/ac Actual Yield/ac Total Yield Acres Revenue Costs Profit Op. Margin Net Margin ROI



- Home
- Map
- Research
- Documentation
- Dashboards & Finance
- Calendar
- Weather & Irrigation
- Data Analyzer
- Identification
- Organizations
- Blog

Dashboards

Leaderboard



# FarmMind.org

Building the world's first Agricultural Intelligence Platform



Contact us at: [support@farmmind.org](mailto:support@farmmind.org)  
Questions, lets talk! We can build custom solutions for your operation.



# The Precision Intelligence Gap

Farmers face thousands of high-dollar decisions while navigating a fragmented, outdated information landscape.



## Decision Overload & Risk

Thousands of time-sensitive decisions on inputs and logistics per season with razor-thin margins and rising weather risks.



## Information Chaos

Constant changes in research, product labels, and regulations make it impossible for humans to stay fully up-to-date.



## Tool Fragmentation

Forced to juggle separate apps for scouting, compliance, soil tests, imagery, and records—data is trapped in silos. Agriculture has no standard operational system of record platform.



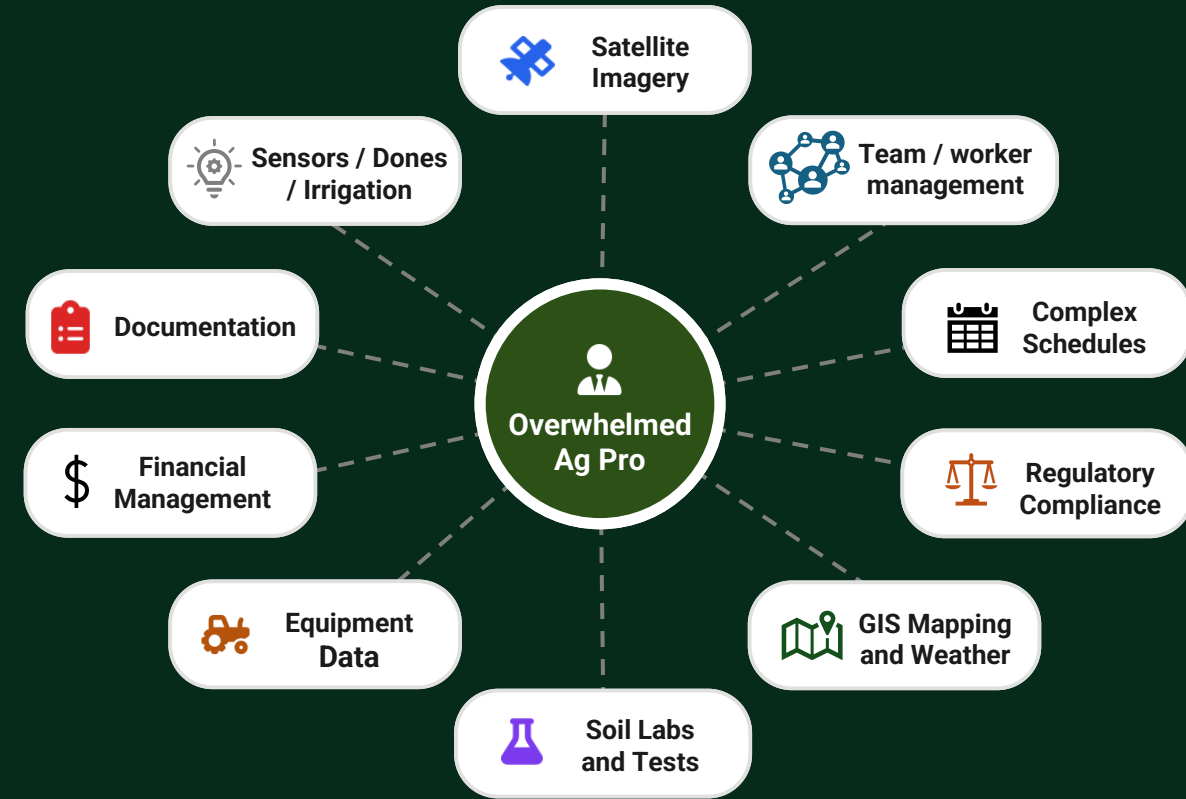
## Costly Mistakes

Errors lead to direct yield loss, regulatory penalties, and environmental damage from misapplied inputs, missed yield opportunities, or unnecessary expense.



## Biased Consulting

Traditional advice is expensive and often skewed toward products partners want to sell rather than what's best for the field.



**The Result: "Patchwork Fatigue"**

Agriculture is one of America's most important industries. Its also one of the most complex.



# FarmMind Overview

FarmMind is an agricultural intelligence platform that combines agronomy expertise with advanced AI to help farmers make confident, profitable decisions while automating their back-office paperwork.

## THE INTEGRATED INTELLIGENCE ADVANTAGE

### Unified Intelligence Layer

Replaces fragmented point solutions by unifying imagery, soil tests, regulations, and financials into one cohesive workspace.

### Deep Integration & Precision

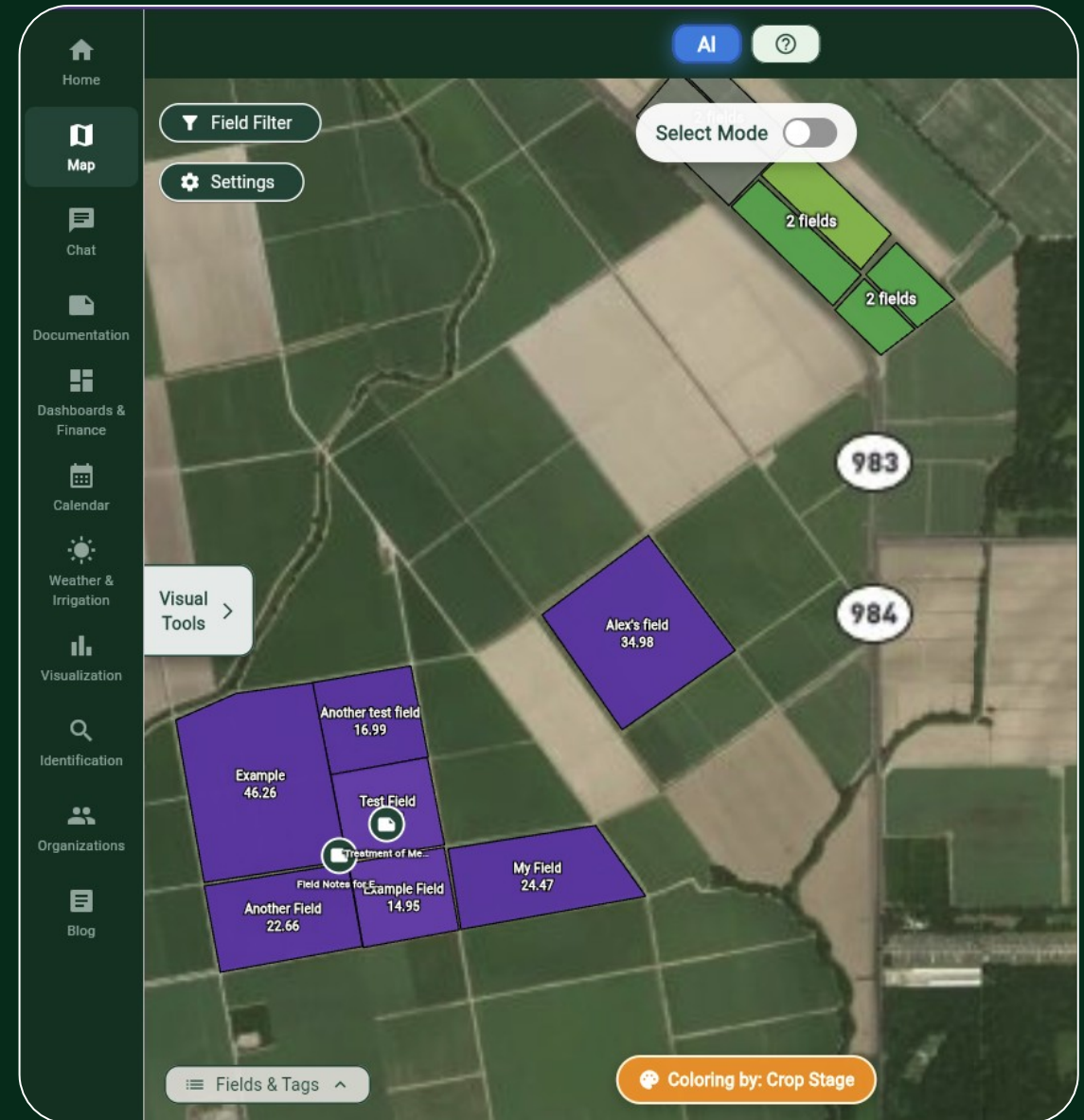
Direct integration with John Deere Operations Center provides 3-meter resolution yield data for precise variable rate decisions.

### Citation-Backed Guidance

AI agents cross-check field data against research and regulations to offer safe, yield-protecting recommendations.

### Proven Business Impact

Zero subscriptions churn to date. Consultants report reducing weekly paperwork from hours to minutes.



# The Ag Intelligence gap: Why General AI Falls Short on the Farm

ChatGPT and Claude know Shakespeare and software, but ask them about your soil or which fungicide to use, and you'll get generic answers that don't account for your unique conditions.

## 1 No Local Context

They don't understand your region's soil types, weather patterns, or pest pressures

## 2 No Farm Data

They can't see your yields, field conditions, or input costs

## 3 No Compliance

They won't flag ESA, labels, GAP requirements or state regulations unless explicitly prompted

**FarmMind: AI build for Ag with context of your specific situation**

second

**Control Panel** ^

Variable: Variable 4

Time: Snapshot 1 of 3

Manage Snapshots: + Add Snapshot Delete

AutoPlay

**Interpolation Controls** ^

IDW Apply

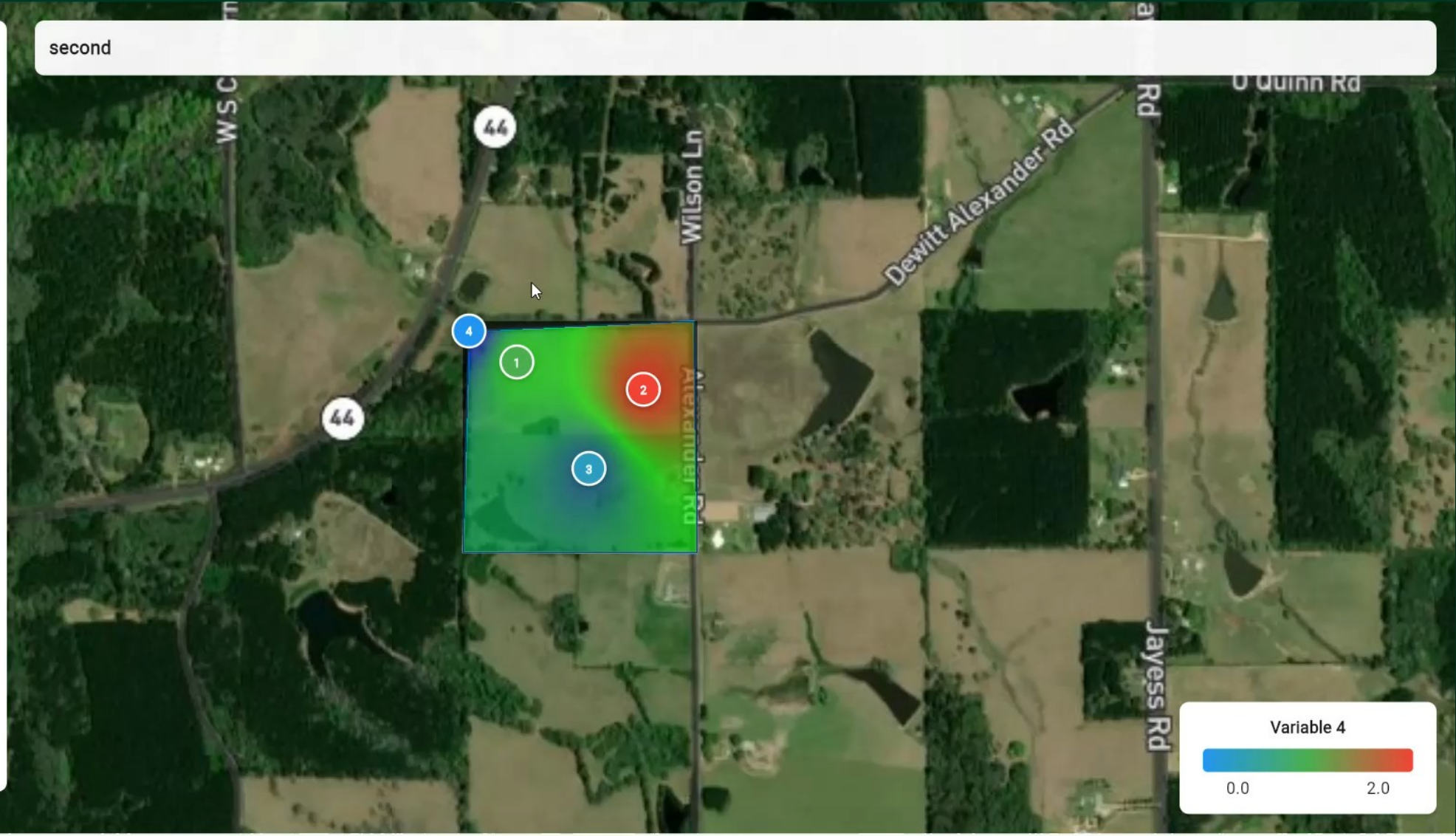
Power: 2.00

Show Raster Heatmap

Zero-out Missing Variables

Interpolate All Variables

**Clustering Controls** v



I have Johnson grass in my tomatoes. How do I control it?

Johnson grass is super invasive and can be tough to control—especially in something like a tomato patch where you don't want to harm your crops. Here's a strategy that balances aggression with care:

## 1. Manual Removal (Best for Small Areas)

- **Dig, don't pull:** Johnson grass has rhizomes (underground stems). Pulling it often leaves pieces behind that regrow. Use a shovel or fork to dig it out as completely as possible.
- **Do it repeatedly:** Every 2–3 weeks if needed. Persistence pays off.


## 2. Mulch Heavily

- After you weed, **lay down a thick layer of mulch** (straw, newspaper, cardboard, or black plastic).
- This smothers new shoots and prevents seeds from germinating.
- Bonus: It helps retain soil moisture for your tomatoes.

## 3. Spot Treatment (Carefully)

- If it keeps coming back and it's not right next to your tomatoes, you can **carefully spot-treat** with a grass-specific herbicide like sethoxydim or fluazifop (e.g., *Poast*, *Ornamec*).
  - These won't harm broadleaf plants like tomatoes when used correctly.
  - **Avoid glyphosate** unless you're doing spot-painting with a brush well away from your tomatoes.

## 4. Avoid Tilling

- Tilling breaks up rhizomes and spreads Johnson grass even more.
- Stick with hand tools and minimal disturbance. 

## 5. Long-Term Strategy

- Keep it from going to seed (it can produce thousands).
- Rotate crops if possible.
- Keep nearby areas (fence lines, walkways) free of it too—those can be sources of reinfestation.

Want help building a season-long plan, or is this a one-time problem you're trying to nip early?

# ChatGPT

# GPT Wrappers

## Cultor.ai

I have Johnson grass in my tomatoes. How do I control it?



Certainly, Colin! To control Johnson grass in your tomatoes, here are some steps you can take:

1. **Manual Removal:** Regularly pull out Johnson grass by hand, ensuring you remove the entire root system to prevent regrowth.
2. **Mulching:** Apply a thick layer of organic mulch around your tomato plants to suppress weed growth and reduce seed germination.
3. **Herbicides:** Use selective herbicides that are safe for tomatoes. Look for products containing clethodim or sethoxydim, which are effective against grasses but safe for broadleaf plants. Follow the label instructions carefully.
4. **Cultivation:** Implement shallow tillage to disrupt the growth of Johnson grass rhizomes. Be cautious not to damage tomato roots.
5. **Crop Rotation:** Consider rotating your crops in future seasons to help break the lifecycle of Johnson grass.

Remember to follow all safety guidelines when using herbicides and consider integrating multiple methods for the best results. If you need more detailed information or have any questions, feel free to ask!

## FBN's Norm

I have Johnson grass in my tomatoes. How do I control it?



Controlling Johnson grass in tomatoes can be challenging because you need to be careful not to harm your tomato plants. Unfortunately, there are no herbicides specifically labeled for use in tomatoes that target Johnson grass. However, here are a few strategies you can consider:

1. **Manual Removal:** Regularly hand-pull Johnson grass, ensuring you remove the entire root system to prevent regrowth.
2. **Mulching:** Apply a thick layer of mulch around your tomato plants to suppress Johnson grass growth by blocking sunlight.
3. **Cultivation:** Use shallow cultivation to disrupt the growth of Johnson grass. Be careful not to damage the roots of your tomato plants.

If you have tried these methods and are still struggling, you might want to consult with a local extension service or agricultural advisor for more tailored advice.

**Compared to FarmSmarter's accurate and useful answer to the same question:**



### Select to Identify by Picture



Plant



Insect



Fungus



Health

- Trifluralin: Apply at 0.5-1.0 lb/A

I have Johnson grass in my tomatoes. How do I control it?

To control Johnson grass (*Sorghum halepense*) in tomato (*Solanum lycopersicum*) crops in Louisiana, a combination of herbicides, cultural practices, and resistance management strategies is recommended. Here's a detailed guide:

#### Regional Guidelines

##### 1. Herbicide Use:

- **Trifluralin:** Apply at 0.5-1.0 lb/A (e.g., Treflan HFP, Trifluralin, Trilin and other 4 EC products at 1 pt/A on light soil; 1.5 pt/A on medium soil; 2.0 pt/A on heavy soil). This should be applied as a directed spray between rows and beneath plants and incorporated into the soil. It is effective against many small-seeded annual grasses, broadleaf weeds, and seedling Johnson grass [Louisiana\_Weeds\_Vegetable\_Crops.pdf].

##### 2. EPA Label Response:

- **Invoke Herbicide:** Provides control of seedling Johnson grass at application rates of 0.1 oz/A, 0.15 oz/A, and 0.2 oz/A, with optimal weed size ranges for control being 1-2 inches, 1-4 inches, and 1-6 inches respectively [ENVOKE HERBICIDE.pdf].

#### Cultural and Mechanical Controls

- **Tillage:** Break up rhizomes with preplant tillage to increase herbicide efficacy. Avoid no-till systems where Johnson grass rhizome networks thrive [www.udel.edu][repository.lsu.edu].
- **Mowing:** Cut plants every 3 weeks when regrowth reaches 12-18" to deplete rhizome reserves. Mow before seed set (June-August in LA) to prevent reseeding [www.udel.edu][www.fs.usda.gov][sundownfarms.com].

#### Herbicide Strategies

##### • Preplant/Preemergence:

- **Glyphosate (4 lb ae/acre):** Apply 7 days before planting in no-till systems for emerged plants. Note: Glyphosate-resistant populations exist in LA [www.lsuagcenter.com][sundownfarms.com].
- **Trifluralin (Treflan):** Incorporate 1-2 qt/A preplant for seedling suppression (coarse soils: 1 qt/A; clay: 2 qt/A) [www3.epa.gov].

##### • Postemergence Options:

- **Clethodim (Select):** 6-8 oz for seedling: 4-6"; rhizome: 12-18" [www.lsuagcenter.com].
- **Quizalofop (Fusilade DX):** 12-16 oz, 30-day PHI for tomatoes [www3.epa.gov].
- **Sethoxydim (Poast):** 1.5 pt, requires crop oil concentrate [www.udel.edu].

#### Resistance Management

## Resistance Management

- **Rotate MOA groups:** ACCase inhibitors (Group 1: clethodim), Cell membrane disruptors (Group 22: Paraquat - preplant only).
- **Tank-mix partners:** Combine clethodim with metribuzin (Sencor) for broader spectrum control. Use layby-applied Dual Magnum (metolachlor) post-transplant for residual control [[www.lsuagcenter.com](http://www.lsuagcenter.com)][[www.laca1.org](http://www.laca1.org)].

## EPA Compliance

- Maintain 15-30 GPA spray volume for ground applications [[www.cdms.net](http://www.cdms.net)].
- Record applications using EPA-approved forms (40 CFR Part 170) [[transportation.ky.gov](http://transportation.ky.gov)].
- Adhere to annual limits: Glyphosate: ≤6 qt/A, Clethodim: ≤32 oz/A seasonal total [[www3.epa.gov](http://www3.epa.gov)].

## Emerging Challenges

- **ALS inhibitor resistance:** Monitor fields for reduced efficacy of nicosulfuron-based products [[bioone.org](http://bioone.org)].
- **Herbicide alternatives:** LSU trials show promising results with split applications of Asulox (asulam) + Envoke (trifloxysulfuron) in other crops, though tomato registrations pending verification [[www.lsuagcenter.com](http://www.lsuagcenter.com)].

## Implementation Tips

- Scout fields 7-10 days after treatment for yellowing/purpling indicating successful translocation to rhizomes. Combine 2-3 control methods and rotate crops to soybeans/corn for enhanced suppression [[www.fs.usda.gov](http://www.fs.usda.gov)][[repository.lsu.edu](http://repository.lsu.edu)].

Local consultation through LSU AgCenter Extension is recommended to address field-specific resistance profiles [[www.lsuagcenter.com](http://www.lsuagcenter.com)].

## Safety Considerations

- Follow 24-hour restricted entry interval (REI) for most POST herbicides [[transportation.ky.gov](http://transportation.ky.gov)].
- Avoid applications during drought stress [[www.cdms.net](http://www.cdms.net)].

This comprehensive approach should help manage Johnson grass in tomato crops effectively in Louisiana. I can provide more information about topics covered in the answer.

Show citations ▲

Document name: [Louisiana Weeds Vegetable Crops.pdf](#), Page number: 49

Document name: [ENVOKE HERBICIDE.pdf](#), Page number: 31

Web link: [www.udel.edu](http://www.udel.edu)

Web link: [wwwsp.dotd.la.gov](http://wwwsp.dotd.la.gov)

Web link: [transportation.ky.gov](http://transportation.ky.gov)

**Tomato: Table 3. Directed postemergence herbicides.**[Back to Additional Info](#)

Active Ingredient and Rate	Formulated Product and Rate	Weeds Controlled	Remarks and Precautions
carfentrazone-ethyl @ 0.012-0.031 lb/A	Aim 2EC @ 2 oz/A; Mix with NIS @ 2 pt/100 gal or COC @ 1 gal/100 gal	Most emerged broadleaf weeds, including morningglory; some suppression of newly emerged annual grass. Can be mixed with grass-killing herbicides.	Direct applications using hooded sprayers. Injury will occur if crop is sprayed. Most effective when weeds are less than 4 inches tall. Coverage is critical.
S-metolachlor @ 0.95-1.58 lb/A	Dual Magnum, Charger Basic @ 1.0-1.33 pt/A on coarse soil; 1.33-1.67 pt/A on med-fine soil	Many small-seeded grasses, yellow nutsedge and pigweed; will not control emerged weeds.	Apply as a directed spray after the first rain or irrigation settles soil around transplants. Minimize contact with transplants. Apply in 20 GPA of water. Apply at least 90 days before harvest. May damage weak transplants. May be applied to row middles. Do not exceed the maximum allowed rate on label.
paraquat @ 0.49 lb/A	Gramoxone Inteon @ 2 pt/A; Firestorm, Parazone @ 1.3 pt/A; Apply with NIS @ 1 pt/100 gal or COC @ 1 gal/100 gal; Pump up sprayer: 0.50 oz/gal paraquat + 0.33-0.5 oz/gal NIS or 1.3 oz/gal COC	Emerged small, annual broadleaf weeds and grasses; top kill and suppression of perennials.	Apply to row middles using shields or hooded sprayers. Apply when weeds are 1-6 inches high. 30 days to harvest. Use 20-100 GPA. Do not exceed 30 psi nozzle pressure or spray under conditions that may cause excessive drift. Don't apply more than three times per season. Do not feed or graze treated areas.
metribuzin @ 0.5-1 lb/A	Sencor 4L@ 1-2 pt/A 4L; Sencor DF, Metribuzin DF @ 0.66-1.33 lbs/A	Many broadleaf weeds and annual grasses.	Direct spray on established tomatoes; avoid contact with foliage. This treatment is recommended for fields with a history of heavy weed pressure or difficult-to-control weeds. <b>See "Postemergence" section for precautions.</b>
trifluralin <sup>1</sup> @ 0.5-1.0 lb/A	Treflan HFP, Trifluralin, Trilin and other 4 EC products @ 1pt/A on light soil; 1.5 pt/A on med; 2.0 pt/A on heavy soil; 60 DF products @ 0.87 lb/A on light soil; 1.33 lbs/A on medium soil; 1.66 lbs/A on heavy soil	Many small-seeded annual grasses, broadleaf weeds and seedling johnsongrass.	Apply as a directed spray between rows and beneath plant and incorporate. Check label for tank-mixes with other herbicides.
trifloxysulfuron-sodium @ 0.0017-0.0091 lb/A	Envoke 75 DG @ 0.1-0.2 oz/A; Apply with NIS @ 1 pt/100 gal	Nutsedge and broadleaf weeds.	Apply as a directed spray on tomatoes grown on plastic. Crop should be transplanted for 14 days before application. Make application before fruit set and 45 days before harvest. See