

# An Ag. Retail Perspective

Jason Weirich Ph.D.

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VP Agri Services

MFA Incorporated

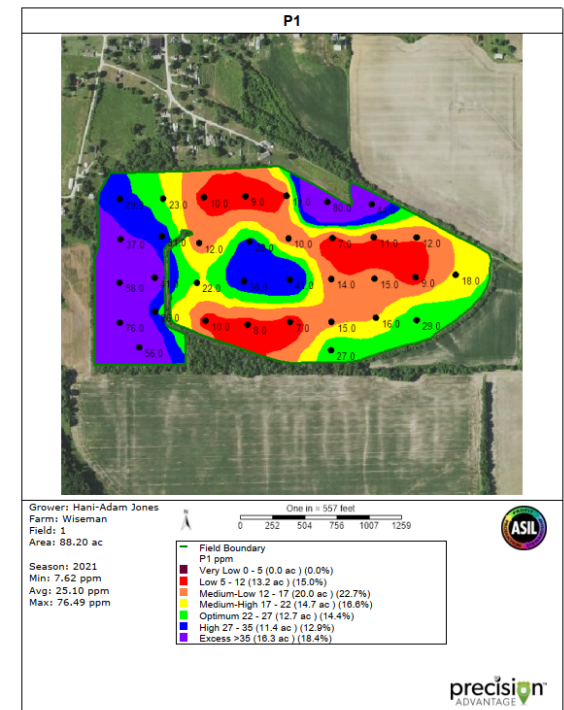
# Influencing Precision

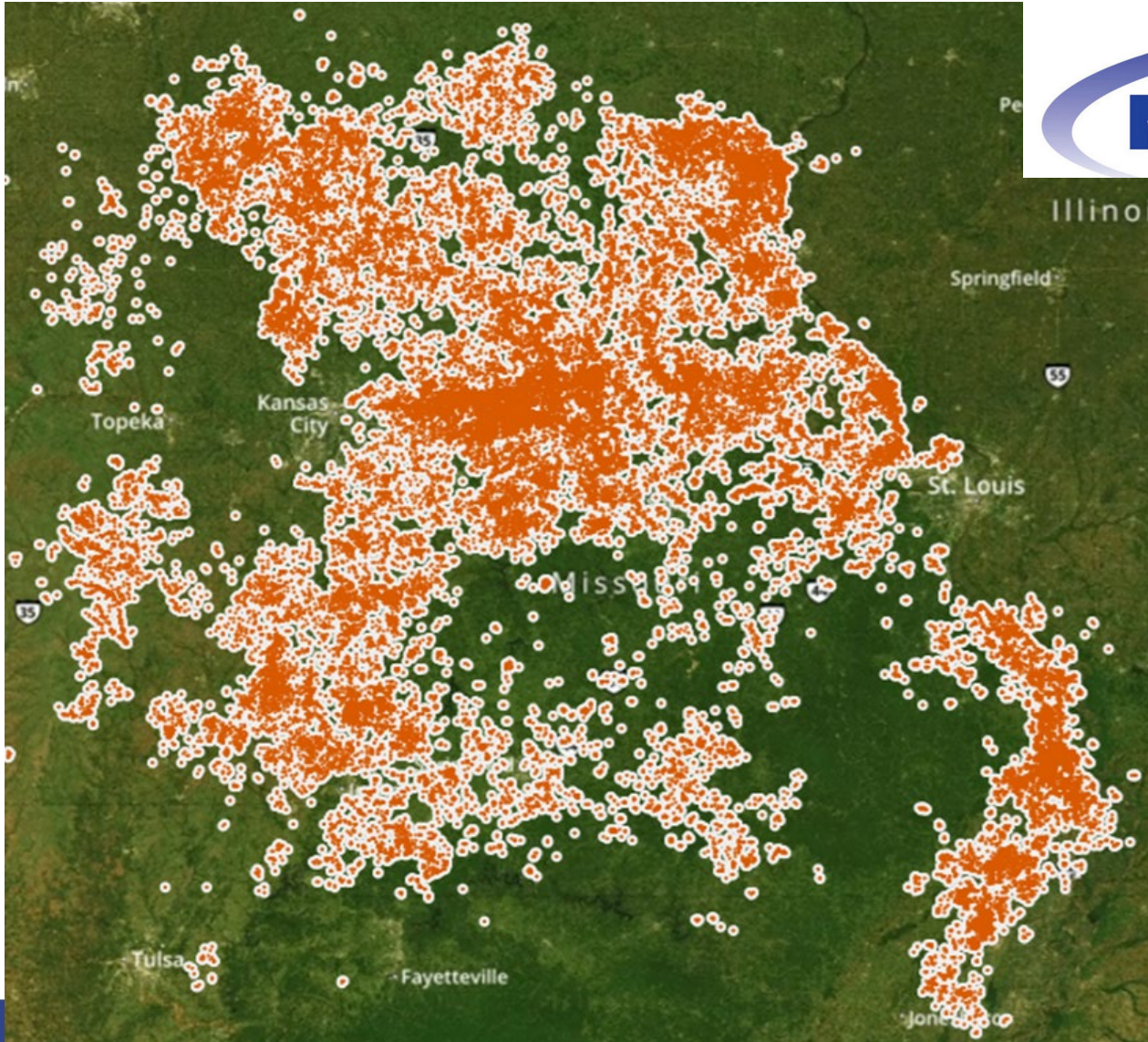
- More about influencing data utilization
  - Machine will collect the data, but how will the grower use it?
- Great advances in “retrofits” to older equipment



# Increased Precision = Increased 4R Adoption

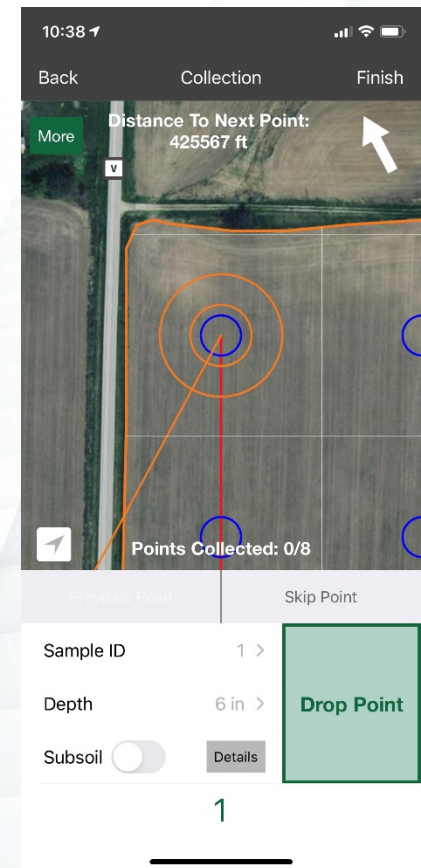
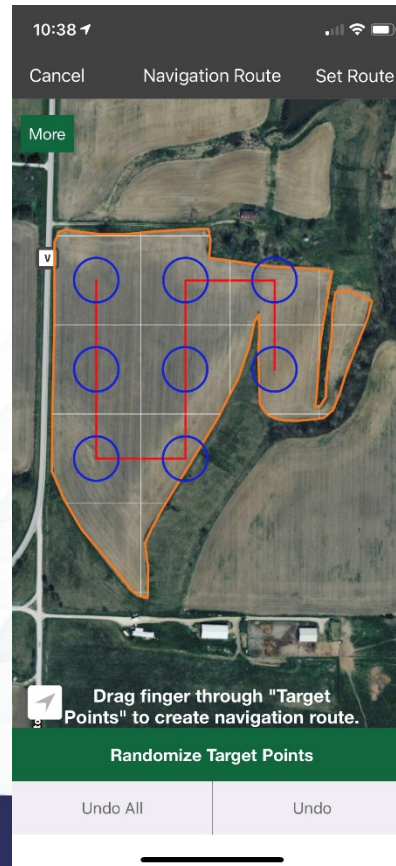
- There is no substitute for soil testing!
  - Soil tests are good for all involved
    - Retailer, Grower, Wholesaler, Landowner, Landscape
- Higher yields, good hybrids
  - Lots of low soil test levels
  - Lots of variability





# Data Integration- Ease of Use

- App-Web Integration
  - Grower Side/ Grower Interaction
  - Soil Sampling
  - Scouting
  - Planting Recs.



# Communication-Data Flow

- Realtime application alerts-summaries

Completed Date/Time: 12-07-2020 10:53:00
**Use Report**
Work Order #: 2249892

Ground App (Dry Spreading - Variable)

Account: MFA - Reg. 2 NEMO Group  
 Address: 6040 Highway 24  
 Hannibal, MO 63401  
 Phone: 573-221-7113

**Customer**

Name: Hans-Adam Jones  
 Address:  
 Office: Adam Jones  
 Contact: 573-470-240  
 Email: A.Jones@mfa-inc.com


**Field Information**

Farm: Wiseman  
 Field: 1  
 Zone: MASTER  
 Crop: Soybeans  
 County: Lewis  
 Town: Union  
 PLS: 60N 6W Sec 32  
 Latitude: 39.949213  
 Longitude: 91.995362

**Application Company**

Name: MFA - Reg. 2 NEMO  
 Address: 6040 Highway 24  
 Office: 573-221-7113  
 Contact: Beau Britt  
 Cell: 573-406-4329  
 Alt:  
 Email: bbritt@mfa-inc.com

Ordered Area: 88.35



**Comments**

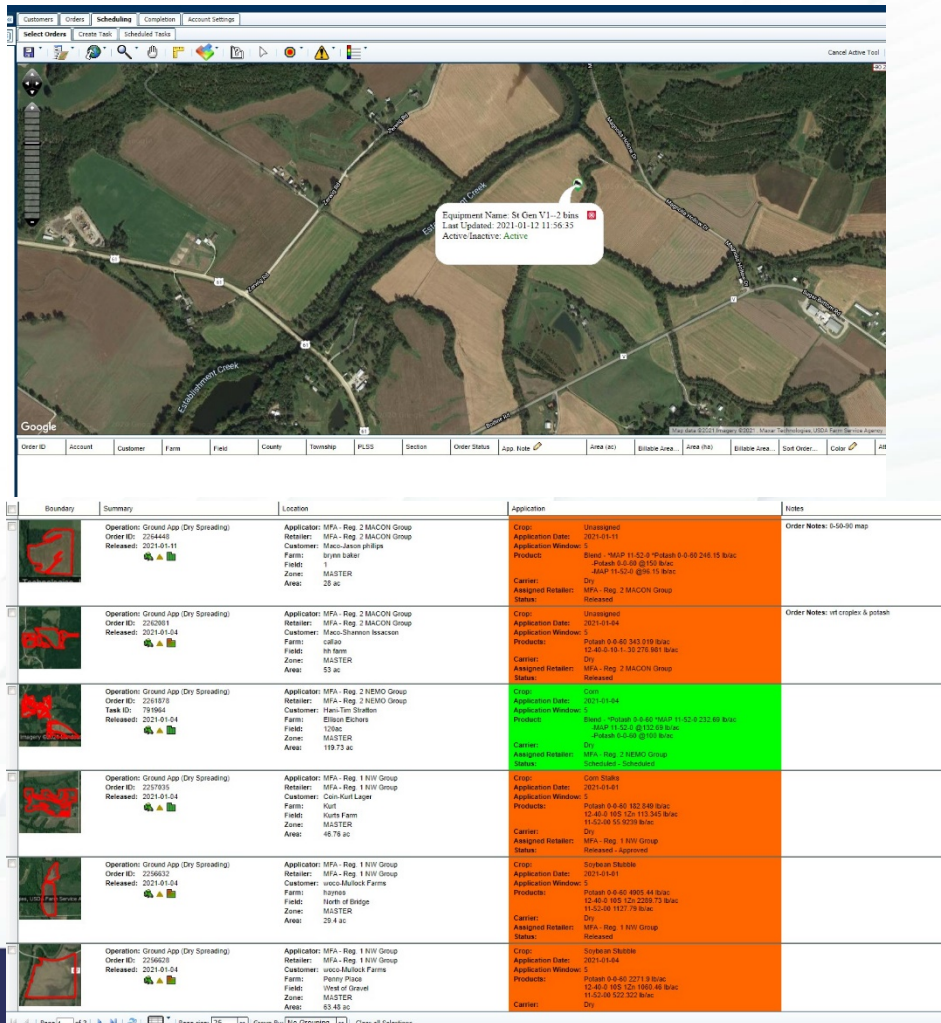
Field:

Order:

Completion:

	1	2	3	4	5	6
Completion Date	2020-12-07					
Start Time	10:53					
Stop Time	10:53					
Personnel	Russell Hettinger					
License #						
Completed Area	88.35					
Equipment ID	203 Case4020					
Equipment	Spreader 4 Comp					
Ground Speed						
Boom Height						
App. Direction						
Tip Type / Tip Size						
Tip Pressure						
Field Conditions						
Wind Direction	320					
Wind Speed	5					
Peak Speed						
Temperature	36					
Humidity %						
Loader						
Staging Location						
Unused Product						

Material	Active Ingredient	EPA Number	REI	PHI	PPE	RU	Treated Pest	Rate	Completed Area	Total Product
Blend						No	No	309.94 lb/	88.35	27363.20 lb
*MAP 11-52-0		EXEMPT				No	No	97.29 lb/	88.35	8595.57 lb
*Potash 0-0-60						No	No	212.65 lb/	88.35	18767.63 lb



Boundary	Summary	Location	Application	Notes
	Operation: Ground App (Dry Spreading) Order ID: 224448 Released: 2021-01-11	Applicator: MFA - Reg. 2 MACON Group Retailer: MFA - Reg. 2 MACON Group Customer: Mico-Jason Pfluga Farm: bryan baker Field: 1 Zone: MASTER Area: 29 ac	Crop: Unassigned Application Date: 2021-01-11 Application Window: 5 Products: Blend *MAP 11-52-0 *Potash 0-0-60 216.15 lbs *Potash 0-0-60 @50 lbs/ac *MAP 11-52-0 @50 15 lbs/ac Carrier: Dry Assigned Retailer: MFA - Reg. 2 MACON Group Status: Released	Order Notes: 5-50-50 map
	Operation: Ground App (Dry Spreading) Order ID: 226261 Released: 2021-01-04	Applicator: MFA - Reg. 2 MACON Group Retailer: MFA - Reg. 2 MACON Group Customer: Mico-Shannon Isaacson Farm: colfo Field: h9 ferns Zone: MASTER Area: 53 ac	Crop: Unassigned Application Date: 2021-01-04 Application Window: 5 Products: Potash 0-0-60 343.09 lbs/ac 12-40-0-85 1.30 276.881 lbs/ac Dry Carrier: MFA - Reg. 2 MACON Group Assigned Retailer: MFA - Reg. 2 MACON Group Status: Released	Order Notes: vet crops & potash
	Operation: Ground App (Dry Spreading) Order ID: 226187 Task ID: 791964 Released: 2021-01-04	Applicator: MFA - Reg. 2 NEMO Group Retailer: MFA - Reg. 2 NEMO Group Customer: Hans-Tim Strubben Farm: Erlour Eichers Field: 1306 Zone: MASTER Area: 193.73 ac	Crop: Corn Application Date: 2021-01-04 Application Window: 5 Products: Blend *MAP 11-52-0 *Potash 0-0-60 212.89 lbs/ac *MAP 11-52-0 @50 102.08 lbs/ac *Potash 0-0-60 @50 100 lbs/ac Carrier: Dry Assigned Retailer: MFA - Reg. 2 NEMO Group Status: Scheduled - Scheduled	
	Operation: Ground App (Dry Spreading) Order ID: 221935 Released: 2021-01-04	Applicator: MFA - Reg. 1 NIV Group Retailer: MFA - Reg. 1 NIV Group Customer: Colin-Kurt Lager Farm: kurt Field: Kurts Farm Zone: MASTER Area: 68.78 ac	Crop: Corn Stalks Application Date: 2021-01-04 Application Window: 5 Products: Potash 0-0-60 352.248 lbs/ac 12-40-0-85 1.20 113.345 lbs/ac 11-52-0 @50 100 lbs/ac Carrier: Dry Assigned Retailer: MFA - Reg. 1 NIV Group Status: Released - Approved	
	Operation: Ground App (Dry Spreading) Order ID: 2256632 Released: 2021-01-04	Applicator: MFA - Reg. 1 NIV Group Retailer: MFA - Reg. 1 NIV Group Customer: waco-Matthias Farms Farm: waco-Philip Field: West of Bridge Zone: MASTER Area: 20.4 ac	Crop: Soybean Stalks Application Date: 2021-01-04 Application Window: 5 Products: Potash 0-0-60 390.54 lbs/ac 12-40-0-85 1.20 229.73 lbs/ac 11-52-0 @50 100 lbs/ac Dry Carrier: MFA - Reg. 1 NIV Group Assigned Retailer: MFA - Reg. 1 NIV Group Status: Released	
	Operation: Ground App (Dry Spreading) Order ID: 2256629 Released: 2021-01-04	Applicator: MFA - Reg. 1 NIV Group Retailer: MFA - Reg. 1 NIV Group Customer: waco-Matthias Farms Farm: waco-Philip Field: West of Gravel Zone: MASTER Area: 63.48 ac	Crop: Soybean Stalks Application Date: 2021-01-04 Application Window: 5 Products: Potash 0-0-60 277.9 lbs/ac 12-40-0-85 1.20 190.68 lbs/ac 11-52-0 @50 100 lbs/ac Carrier: Dry	



# 4R- Precision

- High initial equipment costs
  - Data integration, etc. costs dollars
  - Absorb?, pass to the grower how?
- Retail communicates policy to the grower
  - Labeled buffers, cutoff dates, etc.



# Land Tenure

- We can foster/ maintain great grower relationships
- Struggle on leased cropland
  - Getting the initial investment of the soil test
  - Getting any fertility builds applied
  - Conservation practices the same
    - No guarantee of tenure, investments paying off



# MFA Conservation Positions

- Conservation Specialist (2018)
- Conservation Grazing Specialist (2019)



# TSPs

- Currently employ 20 certified USDA-Technical Service Providers
  - CAP 104/102- Nutrient Management
  - Covid-19 delayed IPM Certifications
- Aligns well with Nutri-Track
- Hopeful for future opportunities to continue

# An Ag Retail View on Carbon

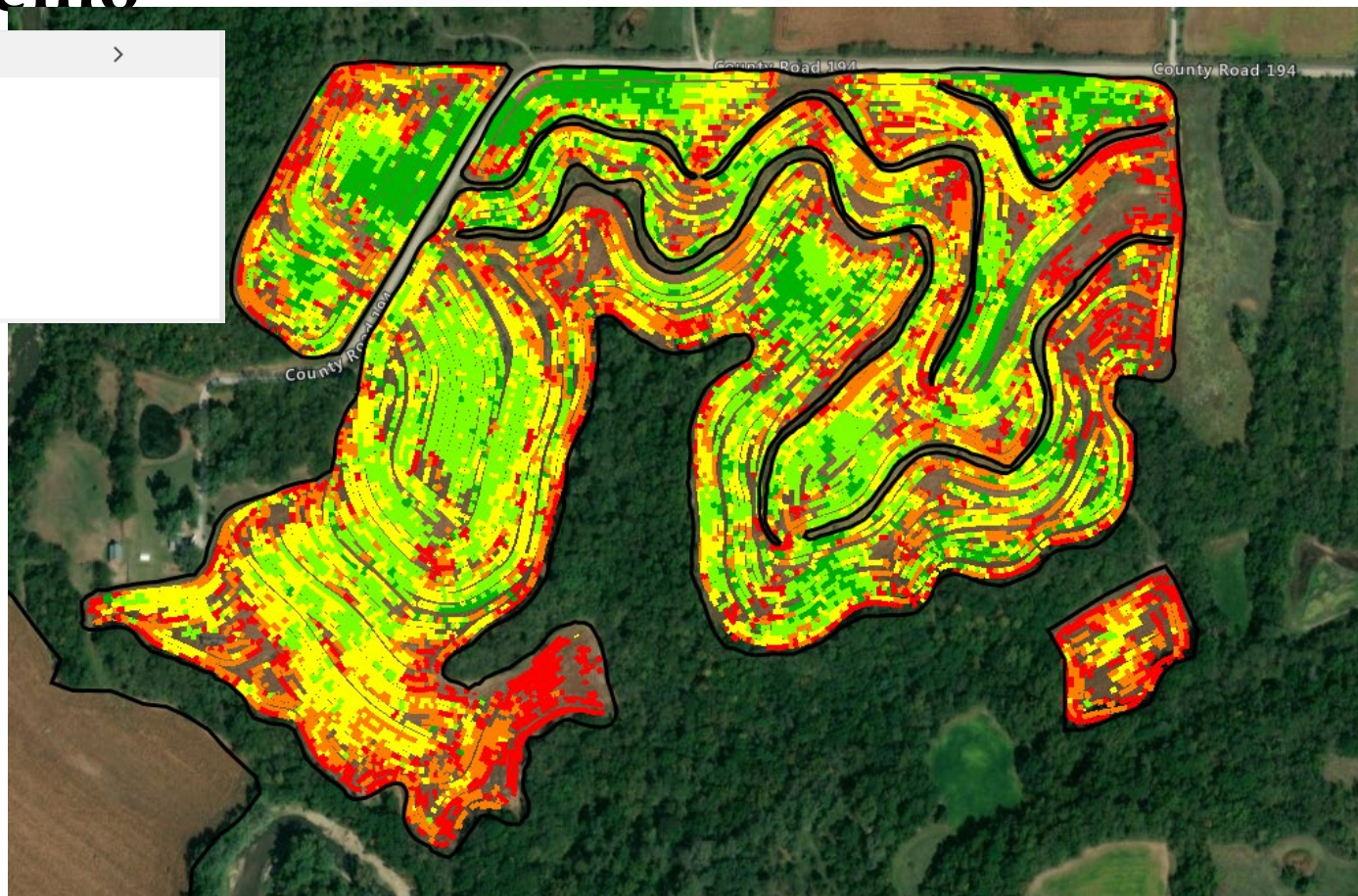
- Positive for getting revenue to growers
  - Ensure that's where the dollars end up
  - Need a marketplace push to Cover crops-No till
- Farmer-owned Ag Retail not vertically integrated enough to have our own programs

# An Ag Retail View on Carbon

- Continue with data to prove practices
  - Edge of field practices (+ Carbon)
- Find a way to compensate early adopters
- We're always looking to pass good programs to growers
  - A way for us to help verify, advocate, guide growers?
    - CCAs, TSPs

# Profit Demo

Dry Yield	
15.14 - 91.18	10.81 ac
91.20 - 153.97	15.28 ac
153.99 - 197.78	19.96 ac
197.81 - 250.69	16.87 ac
250.77 - 350.00	6.93 ac



Planted June 7

Avg. 166

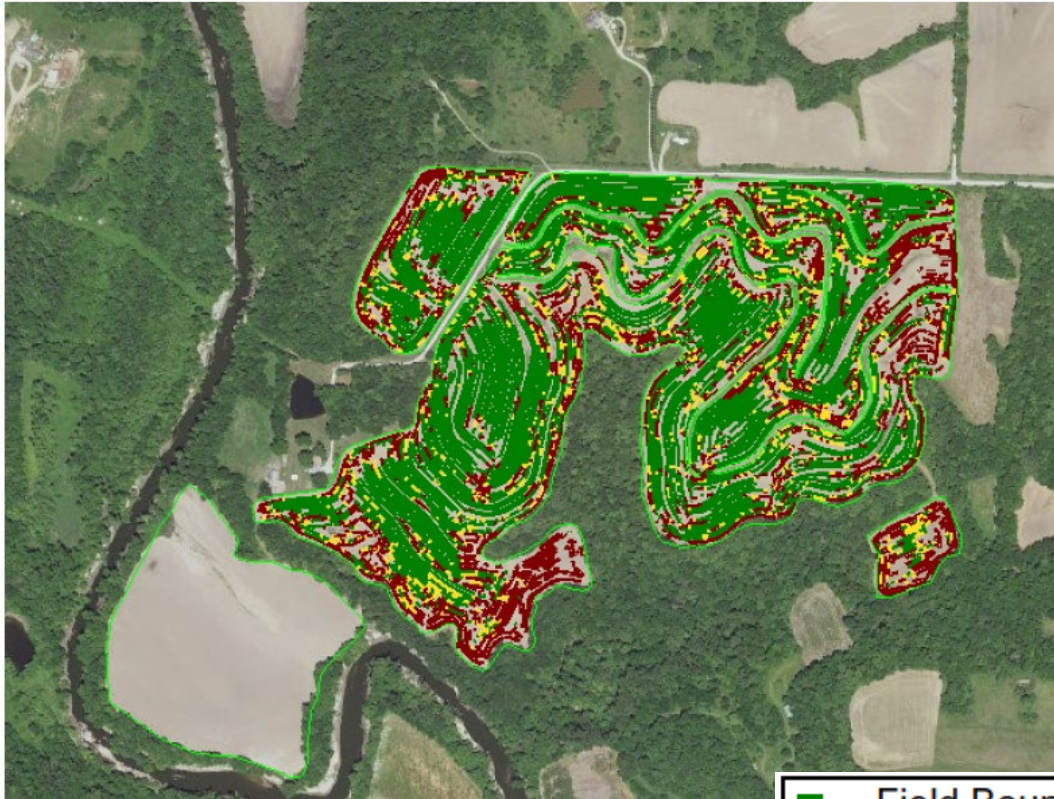


2019 Crop		Corn-Grain
2019 Planted/Harvested Area		77.7 acres
2019 Crop Expenses		
Expense	Explanation	\$/acre
Land	Cash Rent, Land Payment, Liability Insurance, Property Taxes	
Crop Insurance	Cost for Crop Insurance secured, RP, CAT, etc.	
Tillage Cost	Include all tillage passes, from fall 2018 through planting	
Agronomy Services	Cost of soil sampling, running recs, crop consulting services	
Dry Broadcast Fertilizer	Cost of P/K based fertilizer. MAP, DAP, MESZ	
N Fertilizer	Cost of N based fertilizer. Anhydrous, Urea, Super U, UAN, etc.	
Crop Protection	Cost of all crop protection products, including herbicides/fungicides/insecticides	
Application	Cost of application, spraying, spreading, gas application	
Cash Crop Seed	Seed cost including treatment	
Planting	Planting pass cost	
Starter Fertilizer/Extra Insecticide/ Biologicals	Cost of all products applied with planter other than seed	
Harvest	Harvest cost	
Grain Hauling	Grain- Trucking cost	
Grain Storage	Storage costs for 2019 crop	
Cover Crop Seed- Fall 2018	Seed cost cover crop fall 2018, if used	
Cover Crop Application- Fall 2018	Cover application cost Fall 2018- if used	
Capital Improvement Costs	Direct costs for practices such as tile, terracing(leverage over life of improvement)	
<b>Total Expenses Crop Year 2019</b>		<b>\$ -</b>

2019 Crop Income			
Income	Explanation	\$/acre	Grain Price @ time of sale
Grain Sales	Income from grain sales		
Gov't Payments	FSA Payments, MFP, ARC/PLC		
Field Specific Program Payments	Program payments; FY 19 NRCS EQIP, SWCD Cost share, MDC Cost Share, etc.		
Crop Insurance Payouts			
Other Income	Cover crop forage, bales, etc.		
<b>Total Income Crop Year 2019</b>		<b>\$ -</b>	

# Actual Field Profit

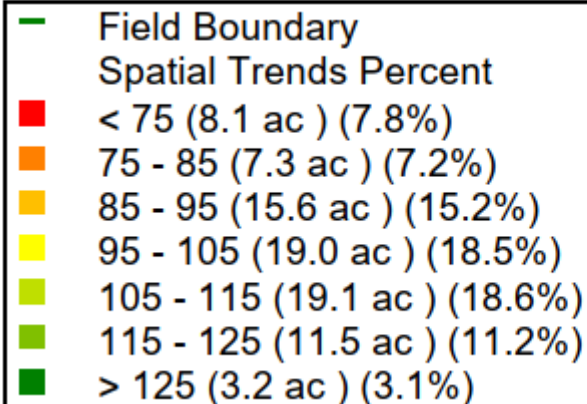
Yield Data (Corn – 2019)



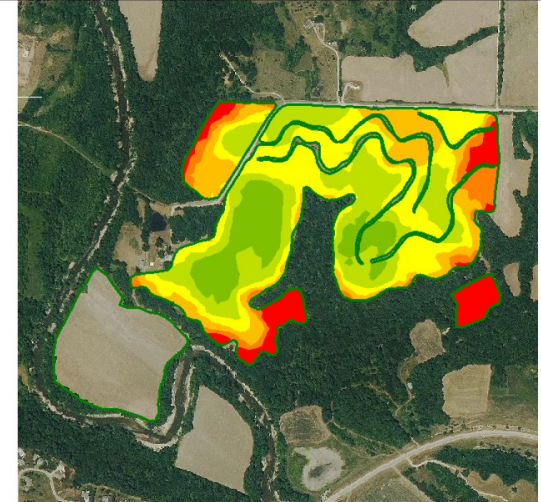
**\$20 + Net Profit**

**\$0-20 Net Profit**

**\$0- Net Profit**

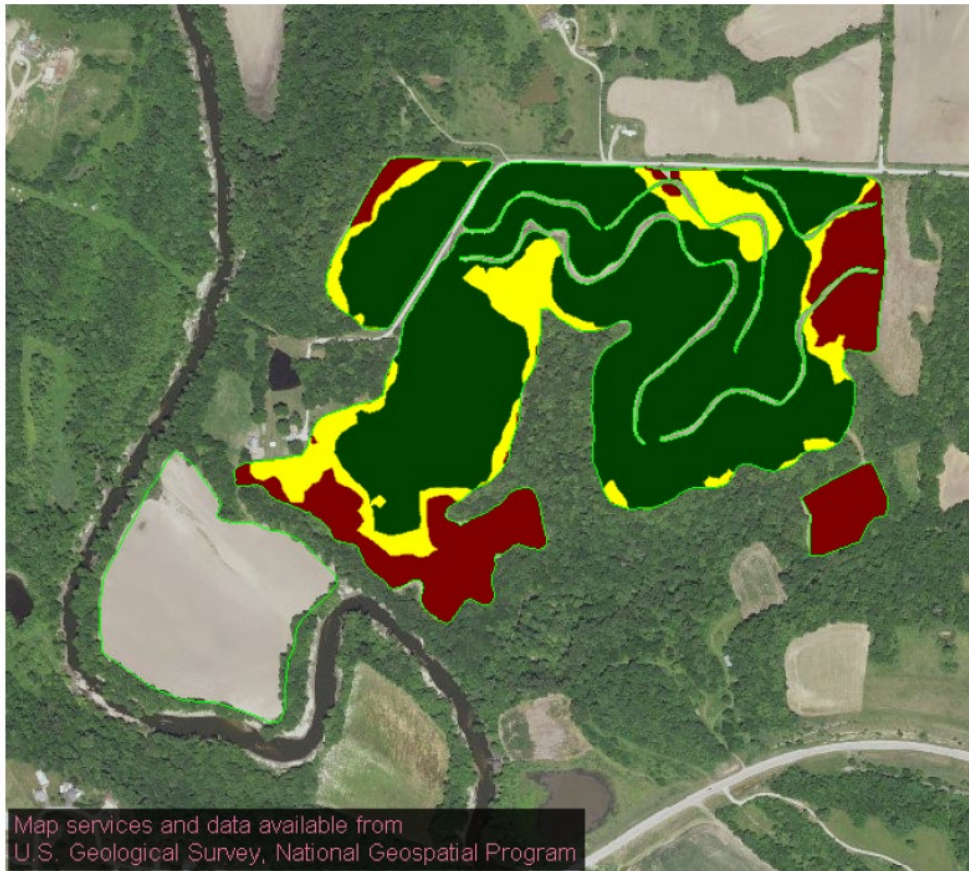


Spatial Trends Corn- Include 2019



# Remove the “noise”

MFA Yield Package - Dry Yield Surface – Corn – 2019



Map services and data available from  
U.S. Geological Survey, National Geospatial Program

**\$20 + Net Profit**

**\$0-20 Net Profit**

**\$0- Net Profit**



# Turn back to \$\$ using Conservation

- 15 Acres of this field (\$0 or -0)
  - Avg. 100 bu. Corn = \$ -144.20 = -\$2163.00
- CP 33, 21- Continuous CRP
  - 90% SRR (142)= \$127.80= \$1917.00
  - Net: \$4080 for 10 years = \$40800.00
- EQIP- Wildlife Habitat Planting-Monarch
  - \$837.67 1 time= \$12,565.05+ \$21,630.00= \$34,195.05

# Why edge of field or land conversion practices?



# Voluntary Conservation

- Voluntary conservation doesn't have a PR Agent
  - It's confusing (CRP, CSP, EQIP, Local SWCD)
  - You need to know what you want
- Funding levels
  - i.e. Continuous CRP acreage available
  - Good Soil Rental Rates-Practice Payments

# Contact Info

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