

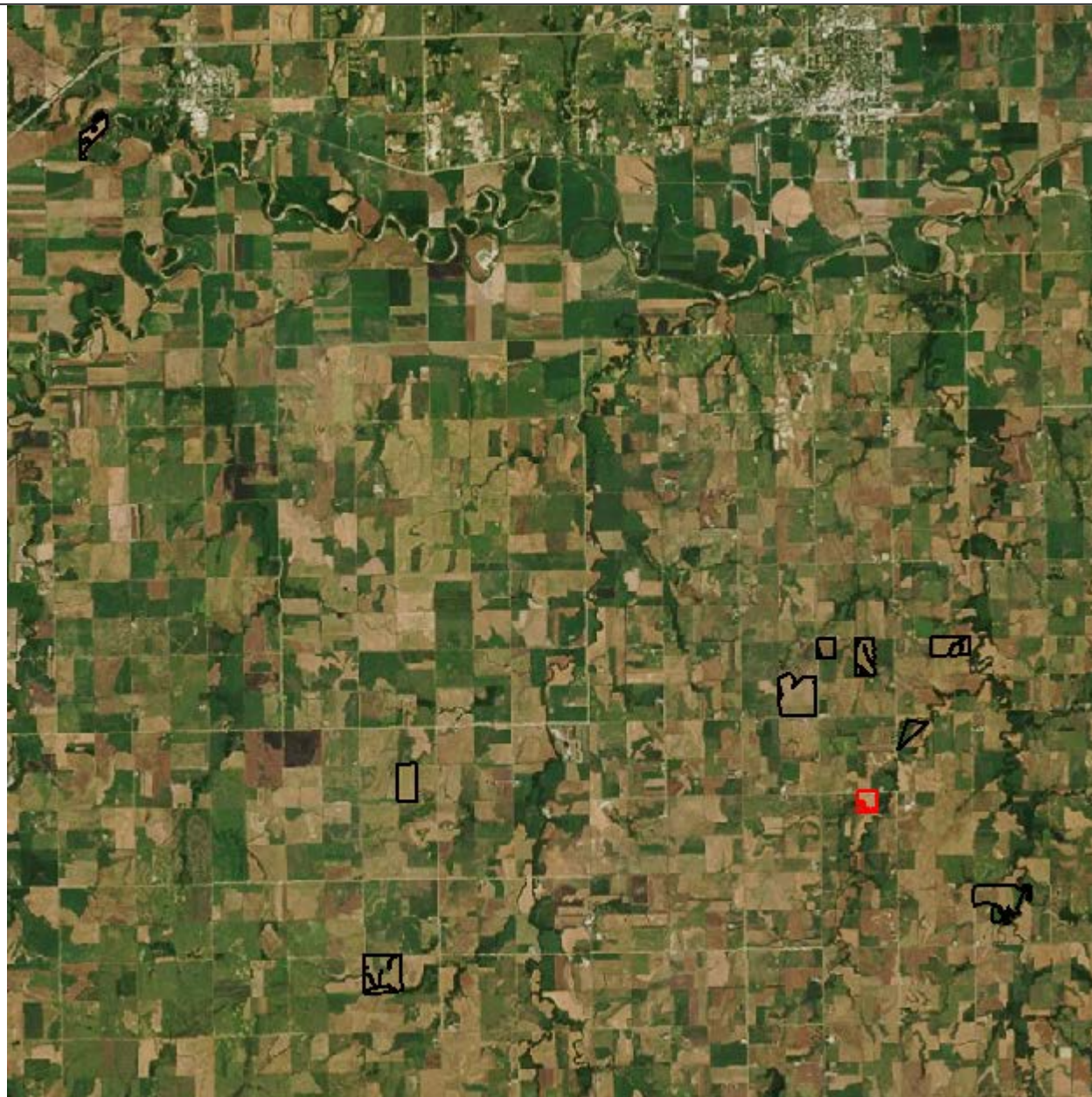


Advantage Trust

D Hoffman 4

Area: 39.36 ac

Farm Imagery



Grower: Ritchie Tarn
Farm: Advantage Trust
Field: D Hoffman 4
Number of Fields: 9
Area: 819.21 ac

— D Hoffman 4 (39.36 ac)
— Other Fields (779.84 ac)



One in = 2.2 miles

0.0 1.0 2.1 3.1 4.1 5.2



Soil Test Point Sample ID

Grower: Ritchie Tarn
Farm: Advantage Trust
Field: D Hoffman 4
Area: 39.36 ac
Event Date(s): 5/17/2019



— Field Boundary
● Soil Test Points



One in = 259 feet

0 122 243 365 488 608

Soil Type

Grower: Ritchie Tarn
Farm: Advantage Trust
Field: D Hoffman 4
Area: 39.36 ac



- Field Boundary
- Soil Type
- Geary silt loam, 3 to 7 percent slopes (11.4 ac) (28.9%)
- Hobbs silt loam, occasionally flooded (13.9 ac) (35.3%)
- Irwin silty clay loam, 1 to 3 percent slopes (7.0 ac) (17.8%)
- Irwin silty clay loam, 3 to 7 percent slopes (0.6 ac) (1.6%)
- Muir silt loam, rarely flooded (6.4 ac) (16.3%)



One in = 259 feet

0 122 243 365 488 608



Soil Test Results

Grower: Ritchie Tarn
Farm: Advantage Trust
Field: D Hoffman 4
Area: 39.36 ac
Event Date(s): 5/17/2019

Min:	5.3	6.5	1.9	10	13	144	1,329	335	13.5	5	0.5	44.6	2.4	19.6
Max:	6.3	6.8	3.0	43	54	242	2,025	562	17.7	9	1.4	67.3	3.9	29.3
Avg:	5.7	6.6	2.5	18	26	167	1,637	422	15.3	6	1.0	53.5	2.8	22.9

Sample ID	pH	BpH	OM	P Bray 1	P Bray 2	K	Ca	Mg	CEC	S ppm	Zn	%Ca	%K	%Mg
1	6.2	6.7	2.7	23	42	177	1,843	415	14.9	5	1.4	61.8	3.0	23.2
2	5.7	6.6	3.0	14	26	158	1,733	459	16.3	6	1.3	53.2	2.5	23.5
3	5.6	6.6	2.5	25	40	164	1,427	392	14.1	5	1.3	50.6	3.0	23.2
4	5.6	6.6	2.9	18	30	152	1,642	455	16.2	6	1.2	50.7	2.4	23.4
5	5.8	6.6	2.9	16	28	150	1,655	426	15.1	5	1.2	54.8	2.5	23.5
6	6.3	6.8	2.9	18	29	164	1,964	343	14.6	5	1.1	67.3	2.9	19.6
7	5.7	6.6	2.1	11	15	208	1,631	417	15.4	9	0.7	53.0	3.5	22.6
8	6.1	6.7	2.3	12	17	153	1,744	562	16.0	6	0.6	54.5	2.5	29.3
9	5.5	6.6	2.1	13	15	144	1,336	402	14.1	7	0.6	47.4	2.6	23.8
10	5.6	6.6	2.7	17	23	163	1,646	424	15.9	5	0.9	51.8	2.6	22.2
11	5.5	6.6	2.9	17	25	148	1,573	422	15.9	6	1.0	49.5	2.4	22.1
12	5.6	6.6	2.3	21	27	154	1,431	335	13.5	6	1.1	53.0	2.9	20.7
13	5.3	6.5	2.1	10	13	144	1,329	398	14.9	9	0.5	44.6	2.5	22.3
14	5.7	6.6	2.7	43	54	242	1,756	371	15.8	7	1.3	55.6	3.9	19.6
15	5.6	6.6	1.9	13	16	150	1,460	399	14.4	7	0.6	50.7	2.7	23.1
16	6.0	6.7	2.4	10	17	195	2,025	529	17.7	6	0.6	57.2	2.8	24.9

P Bray 1 Surface

Grower: Ritchie Tarn
Farm: Advantage Trust
Field: D Hoffman 4
Area: 39.36 ac
Event Date(s): 5/17/2019

Season: 2019
Min: 9.43 ppm
Avg: 17.20 ppm
Max: 41.84 ppm



—	Field Boundary
	P Bray 1 Surface ppm
Yellow	Very Low 0 - 5 ppm (0.0 ac) (0.0%)
Orange	Low 5 - 12 ppm (8.4 ac) (21.3%)
Light Orange	Medium 12 - 22 ppm (24.6 ac) (62.4%)
Pink	Optimum 22 - 27 ppm (4.2 ac) (10.6%)
Purple	High 27 - 35 ppm (1.4 ac) (3.6%)
Dark Purple	Excess > 35 ppm (0.8 ac) (2.0%)



One in = 259 feet
0 122 243 365 488 608

Potassium Surface

Grower: Ritchie Tarn
Farm: Advantage Trust
Field: D Hoffman 4
Area: 39.36 ac
Event Date(s): 5/17/2019

Season: 2019
Min: 144.61 ppm
Avg: 167.04 ppm
Max: 238.08 ppm



—	Field Boundary
	Potassium Surface ppm
■	Very Low 0 - 40 ppm (0.0 ac) (0.0%)
■	Low 40 - 80 ppm (0.0 ac) (0.0%)
■	Medium 80 - 150 ppm (2.2 ac) (5.7%)
■	Optimum 150 - 200 ppm (34.6 ac) (87.9%)
■	High 200 - 250 ppm (2.5 ac) (6.4%)
■	Very High > 250 ppm (0.0 ac) (0.0%)



One in = 259 feet
0 122 243 365 488 608

pH Surface

Grower: Ritchie Tarn
Farm: Advantage Trust
Field: D Hoffman 4
Area: 39.36 ac
Event Date(s): 5/17/2019

Season: 2019
Min: 5.33
Avg: 5.74
Max: 6.27



- Field Boundary
- pH Surface
- Excessive Acid 0 - 5 pH (0.0 ac) (0.0%)
- Acidic 5.1 - 5.5 pH (2.6 ac) (6.7%)
- Slightly Acidic 5.5 - 6.1 pH (34.9 ac) (88.6%)
- Grain Optimum 6.1 - 6.6 pH (1.8 ac) (4.7%)
- Alfalfa Optimum 6.6 - 7.5 pH (0.0 ac) (0.0%)
- Alkaline > 7.5 pH (0.0 ac) (0.0%)



One in = 259 feet
0 122 243 365 488 608



BpH Surface

Grower: Ritchie Tarn
Farm: Advantage Trust
Field: D Hoffman 4
Area: 39.36 ac
Event Date(s): 5/17/2019

Season: 2019
Min: 6.51
Avg: 6.63
Max: 6.79



—	Field Boundary
	BpH Surface
■	0.0 - 6.2 (0.0 ac) (0.0%)
■	6.2 - 6.4 (0.0 ac) (0.0%)
■	6.4 - 6.6 (13.0 ac) (33.0%)
■	> 6.6 (26.4 ac) (67.0%)



One in = 259 feet
0 122 243 365 488 608

Organic Matter Surface

Grower: Ritchie Tarn
Farm: Advantage Trust
Field: D Hoffman 4
Area: 39.36 ac
Event Date(s): 5/17/2019

Season: 2019
Min: 1.93 Percent
Avg: 2.51 Percent
Max: 2.98 Percent



- Field Boundary
- Organic Matter Surface Percent
- 0.0 - 1.0 (%) (0.0 ac) (0.0%)
- 1.0 - 2.0 (1.0 ac) (2.5%)
- 2.0 - 3.0 (38.4 ac) (97.5%)
- 3.0 - 4.0 (0.0 ac) (0.0%)
- 4.0 - 5.0 (0.0 ac) (0.0%)
- > 5.0 (0.0 ac) (0.0%)



One in = 259 feet
0 122 243 365 488 608



Cation Exchange Capacity Surface

Grower: Ritchie Tarn
Farm: Advantage Trust
Field: D Hoffman 4
Area: 39.36 ac
Event Date(s): 5/17/2019

Season: 2019
Min: 13.77 meq/100 g
Avg: 15.34 meq/100 g
Max: 17.63 meq/100 g



- Field Boundary
- Cation Exchange Capacity Surface meq/100 g
- Very Light 0 - 5 (0.0 ac) (0.0%)
- Light 5 - 10 (0.0 ac) (0.0%)
- Optimum 1 10 - 15 (13.2 ac) (33.4%)
- Optimum 2 15 - 20 (26.2 ac) (66.6%)
- Heavy 20 - 25 (0.0 ac) (0.0%)
- Very Heavy > 25 (0.0 ac) (0.0%)



One in = 259 feet

0 122 243 365 488 608

Calcium Surface

Grower: Ritchie Tarn
Farm: Advantage Trust
Field: D Hoffman 4
Area: 39.36 ac
Event Date(s): 5/17/2019

Season: 2019
Min: 1,339.10 ppm
Avg: 1,639.85 ppm
Max: 2,013.81 ppm



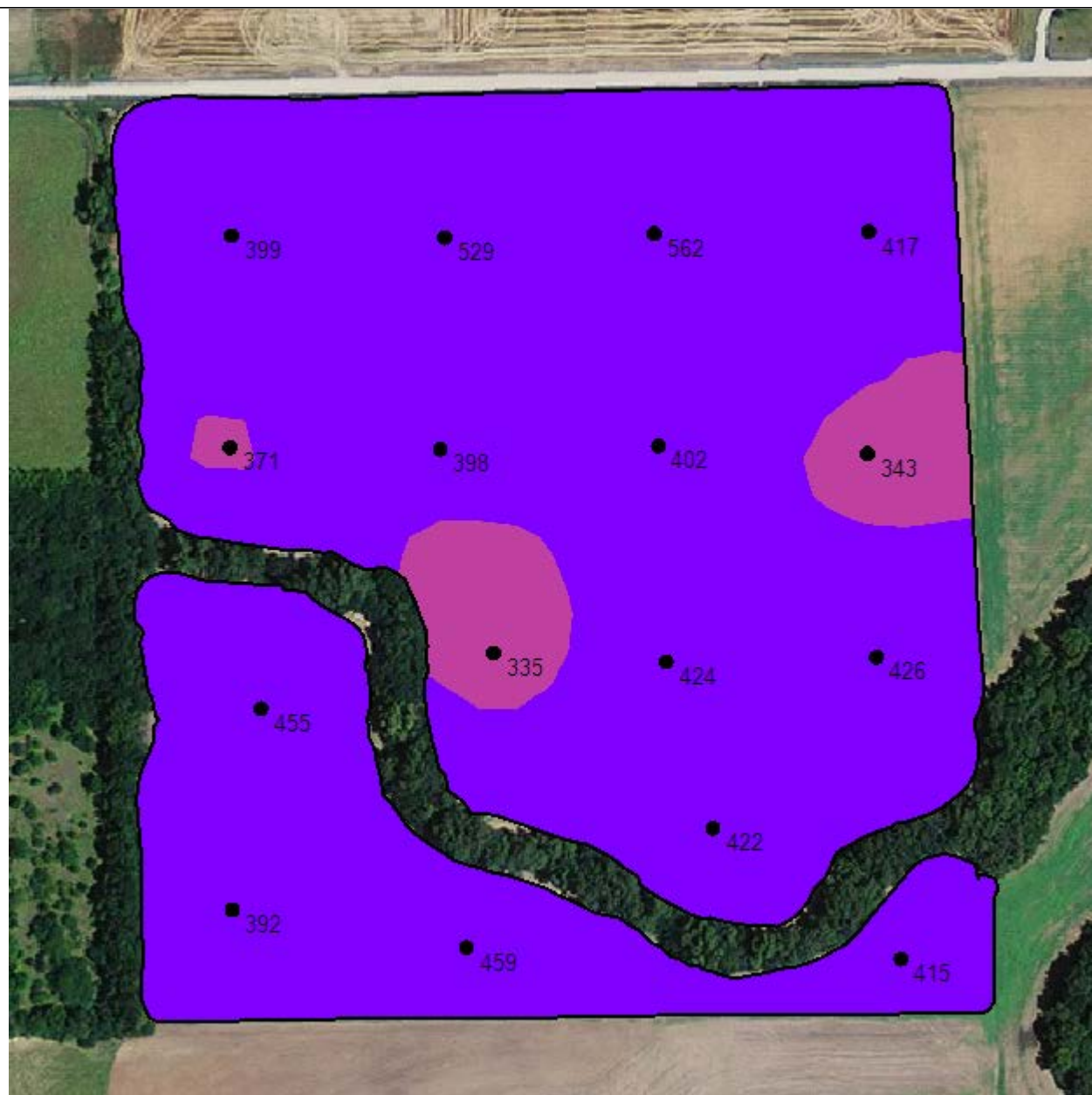
One in = 259 feet

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Magnesium Surface

Grower: Ritchie Tarn
Farm: Advantage Trust
Field: D Hoffman 4
Area: 39.36 ac
Event Date(s): 5/17/2019

Season: 2019
Min: 345.59 ppm
Avg: 425.58 ppm
Max: 555.99 ppm



- Field Boundary
- Magnesium Surface ppm
- Very Low 0 - 37 ppm (0.0 ac) (0.0%)
- Low 37 - 75 ppm (0.0 ac) (0.0%)
- Medium 75 - 120 ppm (0.0 ac) (0.0%)
- Optimum 120 - 250 ppm (0.0 ac) (0.0%)
- High 250 - 375 ppm (3.0 ac) (7.6%)
- Excess > 375 ppm (36.4 ac) (92.4%)



One in = 259 feet
0 122 243 365 488 608



Sulfur - ppm

Grower: Ritchie Tarn
Farm: Advantage Trust
Field: D Hoffman 4
Area: 39.36 ac
Event Date(s): 5/17/2019

Season: 2019
Min: 5.00 ppm
Avg: 6.30 ppm
Max: 8.83 ppm



—	Field Boundary
	Sulfur Surface ppm
■	Very Low 0 - 5 ppm (0.1 ac) (0.2%)
■	Low 5 - 10 ppm (39.3 ac) (99.8%)
■	Medium 10 - 15 ppm (0.0 ac) (0.0%)
■	Optimum 15 - 20 ppm (0.0 ac) (0.0%)
■	High 20 - 25 ppm (0.0 ac) (0.0%)
■	Very High > 25 ppm (0.0 ac) (0.0%)



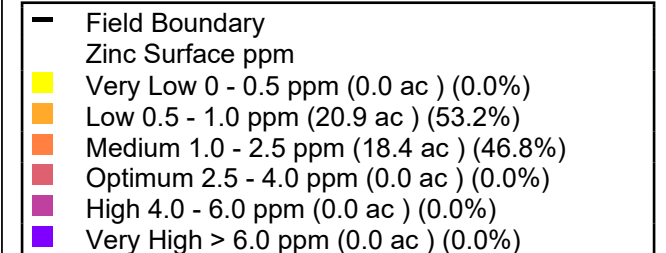
One in = 259 feet
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Zinc Surface

Grower: Ritchie Tarn
Farm: Advantage Trust
Field: D Hoffman 4
Area: 39.36 ac
Event Date(s): 5/17/2019

Season: 2019
Min: 0.52 ppm
Avg: 0.94 ppm
Max: 1.42 ppm



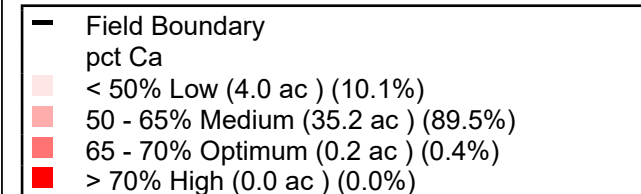
One in = 259 feet

0 122 243 365 488 608

pct Ca

Grower: Ritchie Tarn
Farm: Advantage Trust
Field: D Hoffman 4
Area: 39.36 ac
Event Date(s): 5/17/2019

Season: 2019
Min: 45.32
Avg: 53.42
Max: 66.50



One in = 259 feet

0 122 243 365 488 608

pct H

Grower: Ritchie Tarn
Farm: Advantage Trust
Field: D Hoffman 4
Area: 39.36 ac
Event Date(s): 5/17/2019

Season: 2019
Min: 10.82
Avg: 20.70
Max: 29.97



—	Field Boundary
pct H	
	< 5% Low (0.0 ac) (0.0%)
	5 - 10% Medium (0.0 ac) (0.0%)
	10 - 15% Optimum (4.4 ac) (11.2%)
	> 15% High (35.0 ac) (88.8%)



One in = 259 feet

0 122 243 365 488 608

pct K

Grower: Ritchie Tarn
Farm: Advantage Trust
Field: D Hoffman 4
Area: 39.36 ac
Event Date(s): 5/17/2019

Season: 2019
Min: 2.43
Avg: 2.80
Max: 3.84



—	Field Boundary
pct K	
□	< 1% Low (0.0 ac) (0.0%)
□	1 - 2% Medium (0.0 ac) (0.0%)
□	2 - 7% Optimum (39.4 ac) (100.0%)
□	> 7% High (0.0 ac) (0.0%)



One in = 259 feet
0 122 243 365 488 608



pct Mg

Grower: Ritchie Tarn
Farm: Advantage Trust
Field: D Hoffman 4
Area: 39.36 ac
Event Date(s): 5/17/2019

Season: 2019
Min: 19.71
Avg: 23.08
Max: 28.78



—	Field Boundary
	pct Mg
	< 5% Low (0.0 ac) (0.0%)
	5 - 10% Medium (0.0 ac) (0.0%)
	10 - 15% Optimum (0.0 ac) (0.0%)
	> 15% High (39.4 ac) (100.0%)

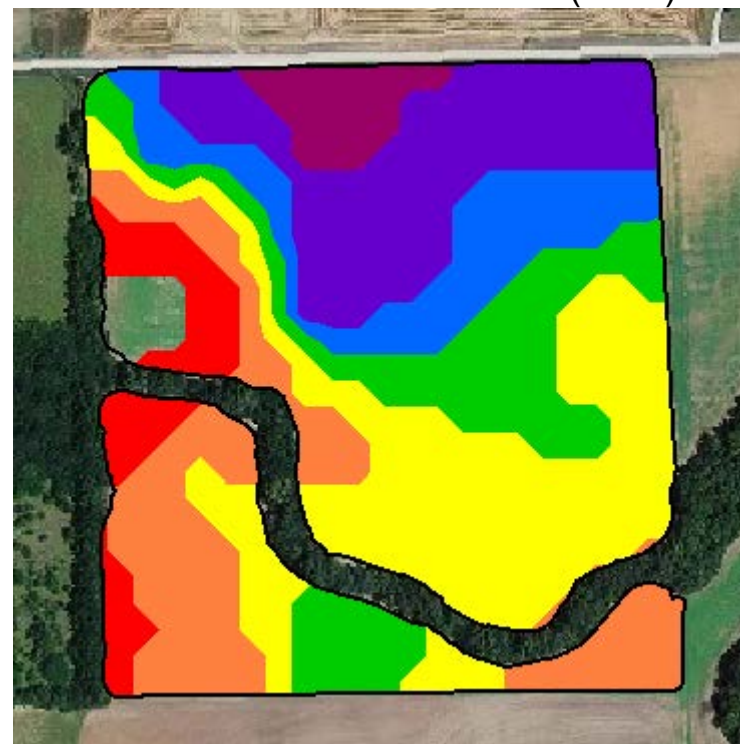


One in = 259 feet
0 122 243 365 488 608

P Bray 1 Surface (2019)



P Product Recommendation (2019)



Grower: Ritchie Tarn
Farm: Advantage Trust
Field: D Hoffman 4
Area: 39.36 ac

Event Date(s): 5/17/2019
Season: 2019
Min: 9.43 ppm
Avg: 17.20 ppm
Max: 41.84 ppm

Season: 2019
Min Rate: 50.00 lb/ac
Avg Rate: 77.47 lb/ac
Max Rate: 110.00 lb/ac
Total Product: 2,987.41 lb
Applied Area: 38.56 ac
Product: 11-52-0 MAP

Order Id: 766064
Order Task Id: 21191494
Crop - Year 1: SOYBEANS
Purpose - Year 1: Dry Grain
Yield Goal - Year 1: 40
ICP?: No
Task: Main Recs - P Rec

—	Field Boundary
—	P Bray 1 Surface ppm
Yellow	Very Low 0 - 5 ppm (0.0 ac) (0.0%)
Light Orange	Low 5 - 12 ppm (8.4 ac) (21.3%)
Orange	Medium 12 - 22 ppm (24.6 ac) (62.4%)
Red-Orange	Optimum 22 - 27 ppm (4.2 ac) (10.6%)
Red	High 27 - 35 ppm (1.4 ac) (3.6%)
Purple	Excess > 35 ppm (0.8 ac) (2.0%)

—	Field Boundary
—	P Product Recommendation lb/ac
Red	50 (2.7 ac) (6.8%)
Orange	60 (6.8 ac) (17.3%)
Yellow	70 (10.8 ac) (27.4%)
Green	80 (5.8 ac) (14.7%)
Blue	90 (4.1 ac) (10.4%)
Purple	100 (6.9 ac) (17.4%)
Dark Purple	110 (1.6 ac) (4.1%)

Potassium Surface (2019)



K Product Recommendation (2019)



Grower: Ritchie Tarn
Farm: Advantage Trust
Field: D Hoffman 4
Area: 39.36 ac

Event Date(s): 5/17/2019
Season: 2019
Min: 144.61 ppm
Avg: 167.04 ppm
Max: 238.08 ppm

Season: 2019
Min Rate: 40.00 lb/ac
Avg Rate: 50.51 lb/ac
Max Rate: 70.00 lb/ac
Total Product: 1,935.40 lb
Applied Area: 38.32 ac
Product: 0-0-60

Order Id: 766064
Order Task Id: 21191476
Crop - Year 1: Soybeans
Crop Purpose - Year 1: Dry Grain
Yield Goal - Year 1: 40
Task: Midwest Labs - K Rec

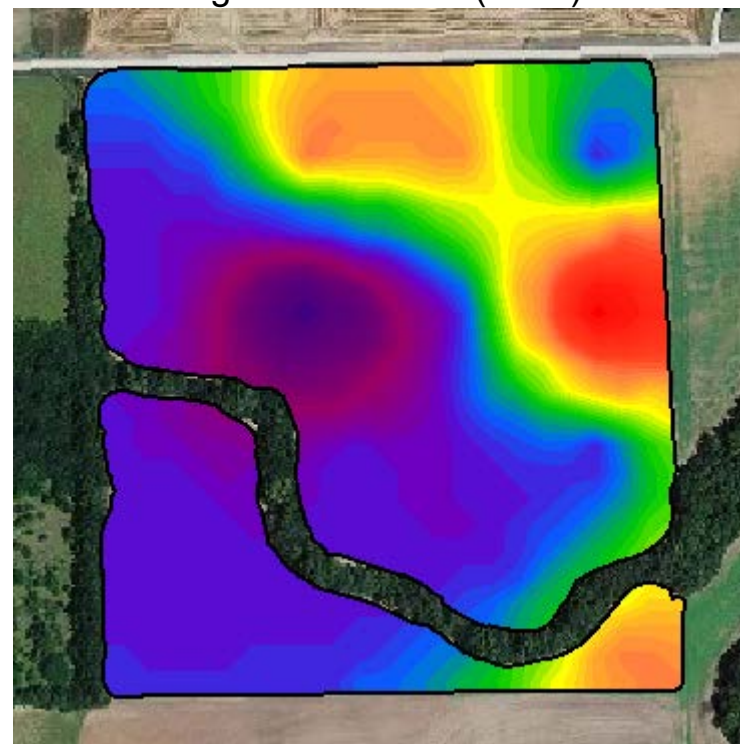
— Field Boundary
Potassium Surface ppm
Very Low 0 - 40 ppm (0.0 ac) (0.0%)
Low 40 - 80 ppm (0.0 ac) (0.0%)
Medium 80 - 150 ppm (2.2 ac) (5.7%)
Optimum 150 - 200 ppm (34.6 ac) (87.9%)
High 200 - 250 ppm (2.5 ac) (6.4%)
Very High > 250 ppm (0.0 ac) (0.0%)

— Field Boundary
K Product Recommendation lb/ac
40 (12.7 ac) (32.2%)
50 (11.5 ac) (29.3%)
60 (13.6 ac) (34.6%)
70 (0.5 ac) (1.3%)

pH Surface (2019)



Ag Lime 50 ECC (2019)



Grower: Ritchie Tarn
Farm: Advantage Trust
Field: D Hoffman 4
Area: 39.36 ac

Event Date(s): 5/17/2019
Season: 2019
Min: 5.33
Avg: 5.74
Max: 6.27

Season: 2019
Min Rate: 4,200.00 lb/ac
Avg Rate: 7,481.25 lb/ac
Max Rate: 9,800.00 lb/ac
Total Product: 294,478.36 lb
Applied Area: 39.36 ac
Product: Lime, Ag

Order Id: 766064
Order Task Id: 21191467
Crop - Year 1: Soybeans
Crop Purpose - Year 1: Dry Grain
Task: Midwest Labs - Lime Rec

—	Field Boundary
Yellow	pH Surface
Yellow	Excessive Acid 0 - 5 pH (0.0 ac) (0.0%)
Orange	Acidic 5.1 - 5.5 pH (2.6 ac) (6.7%)
Light Orange	Slightly Acidic 5.5 - 6.1 pH (34.9 ac) (88.6%)
Pink	Grain Optimum 6.1 - 6.6 pH (1.8 ac) (4.7%)
Purple	Alfalfa Optimum 6.6 - 7.5 pH (0.0 ac) (0.0%)
Dark Purple	Alkaline > 7.5 pH (0.0 ac) (0.0%)

—	Field Boundary
	Lime Product Recommendation lb/ac
Red	4200 - 5600 (1.3 ac) (3.3%)
Orange	5700 - 6300 (4.3 ac) (10.9%)
Yellow	6400 - 6800 (4.1 ac) (10.4%)
Green	6900 - 7400 (5.4 ac) (13.6%)
Blue	7500 - 7800 (5.1 ac) (12.9%)
Purple	7900 - 8200 (14.9 ac) (37.9%)
Dark Purple	8300 - 8900 (3.1 ac) (7.8%)
Black	9000 - 9800 (1.2 ac) (3.2%)

Sulfur - ppm (2019)



Sulfur Product Recommendation (2019)



Grower: Ritchie Tarn
Farm: Advantage Trust
Field: D Hoffman 4
Area: 39.36 ac

Event Date(s): 5/17/2019
Season: 2019
Min: 5.00 ppm
Avg: 6.30 ppm
Max: 8.83 ppm

Season: 2019
Min Rate: 7.00 lb/ac
Avg Rate: 9.75 lb/ac
Max Rate: 11.00 lb/ac
Total Product: 383.71 lb
Applied Area: 39.36 ac
Product: Sulfur

Order Id: 766064
Order Task Id: 21191485
Crop - Year 1: Soybeans
Crop Purpose - Year 1: Dry Grain
Yield Goal - Year 1: 40
Task: Midwest Labs - S Rec

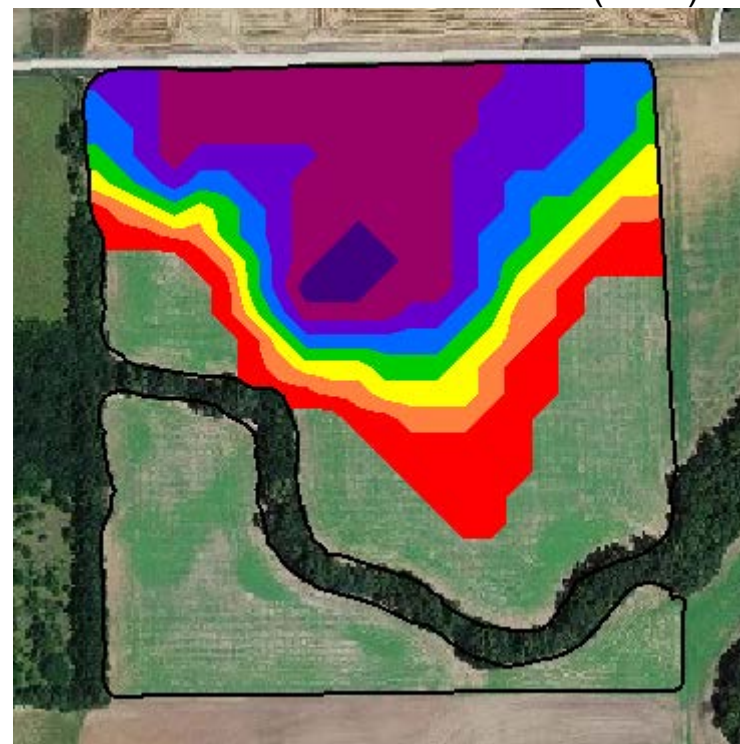
- Field Boundary
- Sulfur Surface ppm
- Very Low 0 - 5 ppm (0.1 ac) (0.2%)
- Low 5 - 10 ppm (39.3 ac) (99.8%)
- Medium 10 - 15 ppm (0.0 ac) (0.0%)
- Optimum 15 - 20 ppm (0.0 ac) (0.0%)
- High 20 - 25 ppm (0.0 ac) (0.0%)
- Very High > 25 ppm (0.0 ac) (0.0%)

- Field Boundary
- Sulfur Product Recommendation lb/ac
- 7 (0.1 ac) (0.2%)
- 8 (3.1 ac) (7.9%)
- 9 (12.1 ac) (30.8%)
- 10 (15.4 ac) (39.1%)
- 11 (8.7 ac) (22.0%)

Zinc Surface (2019)



Zinc Product Recommendation (2019)



Grower: Ritchie Tarn
Farm: Advantage Trust
Field: D Hoffman 4
Area: 39.36 ac

Event Date(s): 5/17/2019
Season: 2019
Min: 0.52 ppm
Avg: 0.94 ppm
Max: 1.42 ppm

Season: 2019
Min Rate: 4.00 lb/ac
Avg Rate: 7.66 lb/ac
Max Rate: 11.00 lb/ac
Total Product: 160.37 lb
Applied Area: 20.95 ac
Product: Zinc Sulfate

Order Id: 766064
Order Task Id: 21191503
Crop - Year 1: SOYBEANS
Purpose - Year 1: Dry Grain
Yield Goal - Year 1: 40
Task: Main Recs - Zn Rec

—	Field Boundary
	Zinc Surface ppm
Yellow	Very Low 0 - 0.5 ppm (0.0 ac) (0.0%)
Light Orange	Low 0.5 - 1.0 ppm (20.9 ac) (53.2%)
Orange	Medium 1.0 - 2.5 ppm (18.4 ac) (46.8%)
Red	Optimum 2.5 - 4.0 ppm (0.0 ac) (0.0%)
Purple	High 4.0 - 6.0 ppm (0.0 ac) (0.0%)
Dark Purple	Very High > 6.0 ppm (0.0 ac) (0.0%)

—	Field Boundary
	Zinc Product Recommendation lb/ac
Red	4 (3.5 ac) (8.8%)
Light Orange	5 (1.7 ac) (4.2%)
Yellow	6 (1.7 ac) (4.3%)
Green	7 (1.6 ac) (4.1%)
Blue	8 (2.8 ac) (7.1%)
Purple	9 (3.5 ac) (8.9%)
Dark Purple	10 (5.7 ac) (14.4%)
Very Dark Purple	11 (0.6 ac) (1.5%)

Product Summary

Season: 2019
Grower: Ritchie Tarn
Farm: Advantage Trust
Field: D Hoffman 4
Area: 39.36 ac

K2O

Recommendation	Rec Acres	Avg Rec Rate	App Acres	Avg App Rate	Total Product
0-0-60 766064 21191476 5/31/2019 2:22:20 PM(local) Soybeans Dry Grain 40	39.4	49.2 lb/ac	38.3	50.5 lb/ac	1,935.4 lb

Lime

Recommendation	Rec Acres	Avg Rec Rate	App Acres	Avg App Rate	Total Product
Lime, Ag 766064 21191467 5/31/2019 2:22:20 PM(local) Soybeans Dry Grain	39.4	7,481.3 lb/ac	39.4	7,481.3 lb/ac	294,478.4 lb

P2O5

Recommendation	Rec Acres	Avg Rec Rate	App Acres	Avg App Rate	Total Product
11-52-0 MAP 766064 21191494 5/31/2019 2:22:20 PM(local) SOYBEANS Dry Grain 40 No	39.4	75.9 lb/ac	38.6	77.5 lb/ac	2,987.4 lb

Sulfur

Recommendation	Rec Acres	Avg Rec Rate	App Acres	Avg App Rate	Total Product
Sulfur 766064 21191485 5/31/2019 2:22:20 PM(local) Soybeans Dry Grain 40	39.4	9.7 lb/ac	39.4	9.7 lb/ac	383.7 lb

Zinc

Recommendation	Rec Acres	Avg Rec Rate	App Acres	Avg App Rate	Total Product
Zinc Sulfate 766064 21191503 5/31/2019 2:22:20 PM(local) SOYBEANS Dry Grain 40	39.4	4.1 lb/ac	20.9	7.7 lb/ac	160.4 lb