



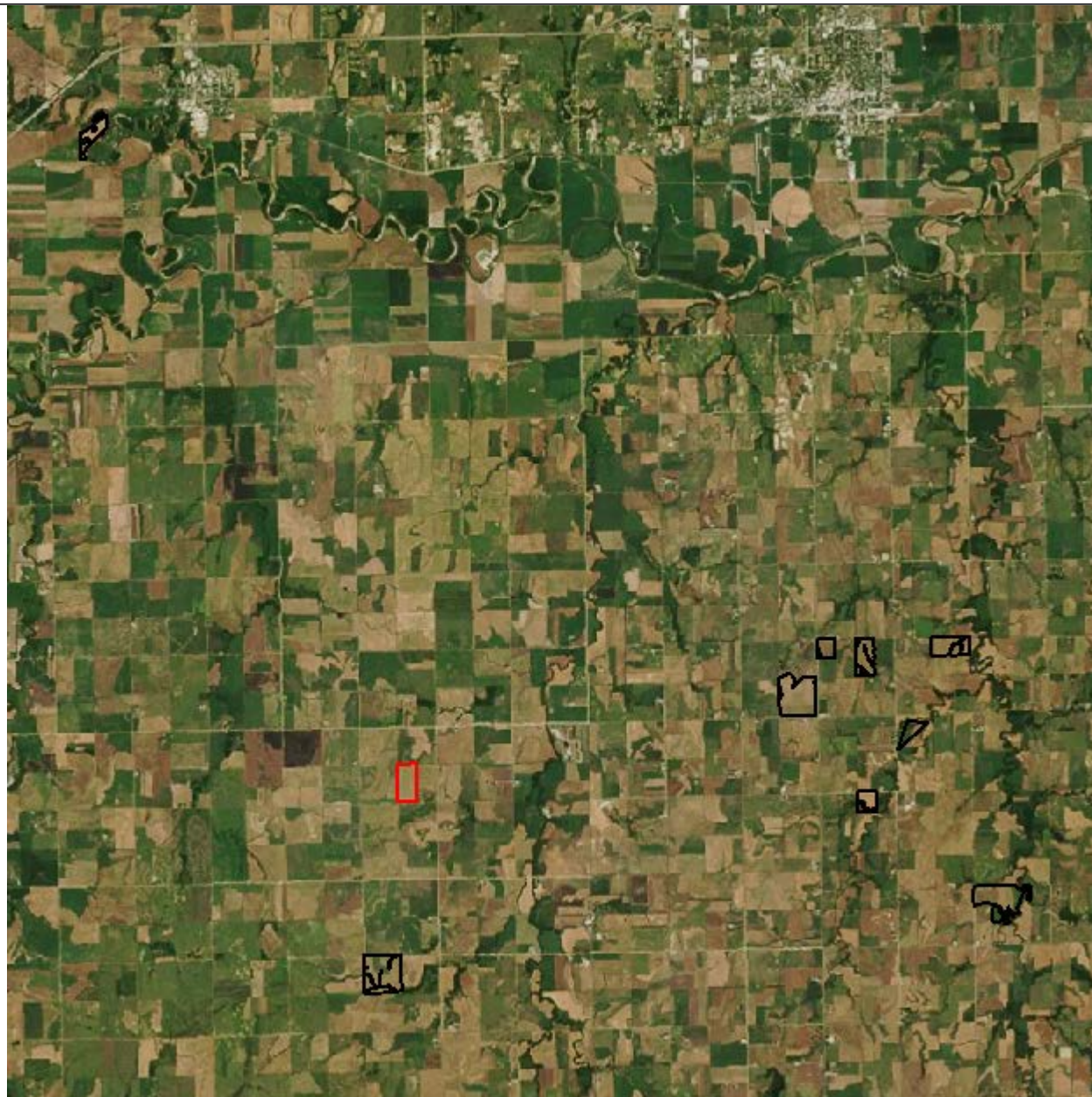
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## **Advantage Trust**

**D Hoffman 33**

**Area: 76.04 ac**

## Farm Imagery



Grower: Ritchie Tarn  
Farm: Advantage Trust  
Field: D Hoffman 33  
Number of Fields: 9  
Area: 819.21 ac

— D Hoffman 33 (76.04 ac)  
— Other Fields (743.16 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 33  
Area: 76.04 ac  
Event Date(s): 5/16/2019



— Field Boundary  
● Soil Test Points



One in = 465 feet

0 218 436 653 871 1089



## Soil Type

Grower: Ritchie Tarn  
Farm: Advantage Trust  
Field: D Hoffman 33  
Area: 76.04 ac



- Field Boundary
- Soil Type
  - Irwin silty clay loam, 1 to 3 percent slopes (75.8 ac ) (99.7%)
  - Irwin silty clay loam, 3 to 7 percent slopes (0.2 ac ) (0.3%)



One in = 485 feet

0 218 436 653 871 1089

# Soil Test Results

Grower: Ritchie Tarn  
Farm: Advantage Trust  
Field: D Hoffman 33  
Area: 76.04 ac  
Event Date(s): 5/16/2019

Min:	4.9	6.0	1.8	7	28	12	182	1,186	342	16.3	5	0.3	33.2	2.1	15.9
Max:	8.0	7.1	2.9	49	65	12	321	3,607	1,586	26.2	11	1.5	79.4	3.7	52.4
Avg:	5.9	6.6	2.4	31	45	12	252	1,910	874	21.6	8	0.9	44.1	3.0	33.2

Sample ID	pH	BpH	OM	P Bray 1	P Bray 2	P Olsen	K	Ca	Mg	CEC	S ppm	Zn	%Ca	%K	%Mg
1	6.7	7.1	2.9	43	63		207	3,149	425	19.8	7	1.5	79.4	2.7	17.9
2	5.6	6.5	2.5	49	54		269	1,830	652	20.0	8	1.5	45.8	3.4	27.2
3	5.6	6.5	2.3	44	58		254	1,536	829	19.9	8	1.0	38.6	3.3	34.7
4	5.7	6.5	2.6	29	44		254	1,543	1,077	21.9	8	0.8	35.2	3.0	41.0
5	5.5	6.5	2.6	41	52		296	1,657	742	20.5	8	1.1	40.4	3.7	30.2
6	5.3	6.3	2.4	33	47		242	1,482	684	19.9	8	1.0	37.2	3.1	28.6
7	5.2	6.0	2.6	39	50		261	1,438	520	18.6	9	1.0	38.7	3.6	23.3
8	5.4	6.4	2.1	39	52		253	1,613	775	21.2	9	0.3	38.0	3.1	30.5
9	5.7	6.5	2.2	35	42		246	1,368	1,065	20.6	7	0.9	33.2	3.1	43.1
10	5.2	6.3	2.7	46	55		321	1,593	696	22.3	8	1.0	35.7	3.7	26.0
11	5.6	6.5	2.5	39	47		287	1,865	772	21.6	6	1.0	43.2	3.4	29.8
12	5.8	6.5	2.6	29	40		292	2,102	1,074	24.9	7	0.8	42.2	3.0	35.9
13	5.9	6.6	2.4	26	34		278	1,659	1,339	24.3	6	0.8	34.1	2.9	45.9
14	5.9	6.5	2.2	21	33		259	2,013	1,220	25.2	7	0.7	39.9	2.6	40.3
15	5.7	6.6	1.9	22	30		197	1,507	887	19.5	9	0.7	38.6	2.6	37.9
16	6.4	6.7	2.6	21	34		234	2,813	625	21.9	7	0.7	64.2	2.7	23.8
17	4.9	6.5	2.8	45	65		238	1,316	342	17.9	11	1.2	36.8	3.4	15.9
18	5.1	6.5	2.7	26	41		190	1,186	443	16.3	10	0.9	36.4	3.0	22.6
19	5.3	6.2	2.2	32	43		241	1,549	667	20.2	9	0.8	38.3	3.1	27.5
20	6.1	6.6	2.8	21	33		270	2,290	1,090	24.7	6	0.7	46.4	2.8	36.8
21	6.0	6.6	2.5	24	38		279	2,294	1,101	25.2	7	0.9	45.5	2.8	36.4
22	5.5	6.5	2.5	43	46		229	1,490	819	20.1	8	1.5	37.1	2.9	34.0
23	5.4	6.4	2.6	39	48		245	1,621	797	21.5	10	1.1	37.7	2.9	30.9

24	5.9	6.6	2.4	42	64		266	1,752	1,157	23.0	7	1.1	38.1	3.0	41.9
25	6.6	6.8	2.5	13	28		259	1,973	1,586	25.2	6	0.7	39.1	2.6	52.4
26	8.0	7.1	1.8	7	59	12	182	3,607	509	22.7	5	0.4	79.2	2.1	18.7
27	6.9	7.1	2.3	15	42		281	2,990	1,267	26.2	9	0.6	56.9	2.8	40.3
28	5.9	6.6	2.5	29	37		218	1,960	831	20.8	7	1.0	47.1	2.7	33.3
29	6.1	6.6	2.3	25	40		249	1,990	918	21.2	7	1.0	46.9	3.0	36.1
30	6.6	6.8	2.1	23	36		270	2,151	1,219	23.0	6	0.7	46.8	3.0	44.2
31	6.9	7.1	2.3	13	30		253	2,235	1,256	22.3	5	0.9	50.2	2.9	46.9
32	5.5	6.5	2.4	43	53		229	1,541	569	17.6	8	0.9	43.8	3.3	26.9



## P Bray 1 Surface

Grower: Ritchie Tarn  
Farm: Advantage Trust  
Field: D Hoffman 33  
Area: 76.04 ac  
Event Date(s): 5/16/2019

Season: 2019  
Min: 5.45 ppm  
Avg: 31.11 ppm  
Max: 50.16 ppm



- Field Boundary
- P Bray 1 Surface ppm
- Very Low 0 - 5 ppm (0.0 ac) (0.0%)
- Low 5 - 12 ppm (2.7 ac) (3.5%)
- Medium 12 - 22 ppm (6.1 ac) (8.1%)
- Optimum 22 - 27 ppm (21.2 ac) (27.9%)
- High 27 - 35 ppm (15.2 ac) (20.0%)
- Excess > 35 ppm (30.8 ac) (40.5%)



One in = 485 feet

0 218 436 653 871 1089

# Potassium Surface

Grower: Ritchie Tarn  
Farm: Advantage Trust  
Field: D Hoffman 33  
Area: 76.04 ac  
Event Date(s): 5/16/2019

Season: 2019  
Min: 189.48 ppm  
Avg: 252.36 ppm  
Max: 315.16 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 (0.0 ac ) (0.0%)
- Optimum 150 - 200 ppm (1.2 ac ) (1.6%)
- High 200 - 250 ppm (29.1 ac ) (38.3%)
- Very High > 250 ppm (45.7 ac ) (60.1%)



One in = 485 feet

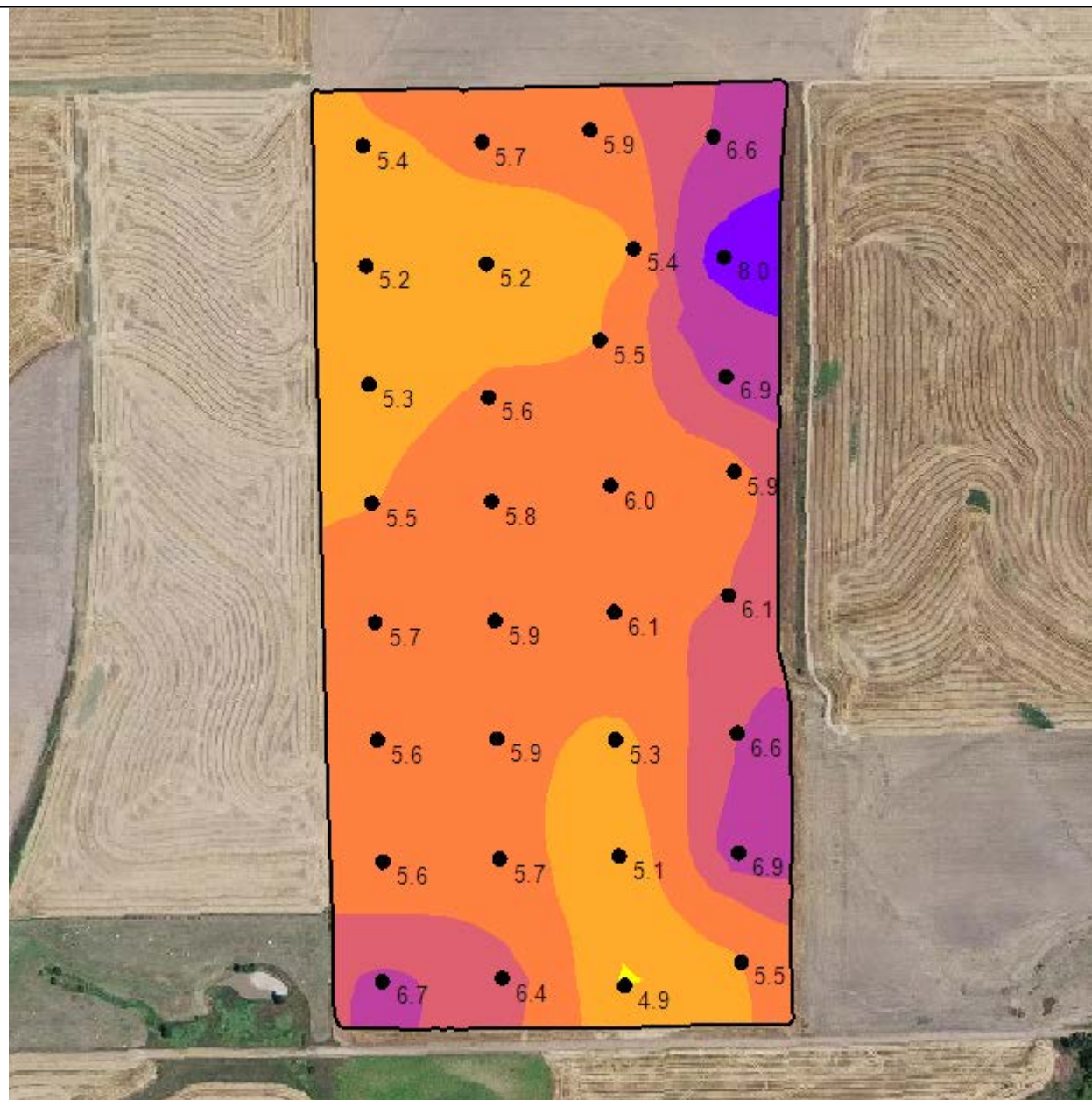
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## pH Surface

Grower: Ritchie Tarn  
Farm: Advantage Trust  
Field: D Hoffman 33  
Area: 76.04 ac  
Event Date(s): 5/16/2019

Season: 2019  
Min: 4.94  
Avg: 5.86  
Max: 7.89



- Field Boundary
- pH Surface
- Excessive Acid 0 - 5 pH (0.1 ac ) (0.1%)
- Acidic 5.1 - 5.5 pH (19.7 ac ) (25.9%)
- Slightly Acidic 5.5 - 6.1 pH (39.2 ac ) (51.5%)
- Grain Optimum 6.1 - 6.6 pH (9.4 ac ) (12.4%)
- Alfalfa Optimum 6.6 - 7.5 pH (6.4 ac ) (8.4%)
- Alkaline > 7.5 pH (1.3 ac ) (1.7%)



One in = 485 feet  
0 218 436 653 871 1089

## BpH Surface

Grower: Ritchie Tarn  
Farm: Advantage Trust  
Field: D Hoffman 33  
Area: 76.04 ac  
Event Date(s): 5/16/2019

Season: 2019  
Min: 6.02  
Avg: 6.57  
Max: 7.14



- Field Boundary
- BpH Surface
- 0.0 - 6.2 (2.5 ac ) (3.3%)
- 6.2 - 6.4 (9.5 ac ) (12.5%)
- 6.4 - 6.6 (39.3 ac ) (51.7%)
- > 6.6 (24.7 ac ) (32.5%)



One in = 485 feet

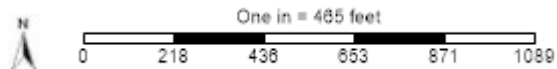
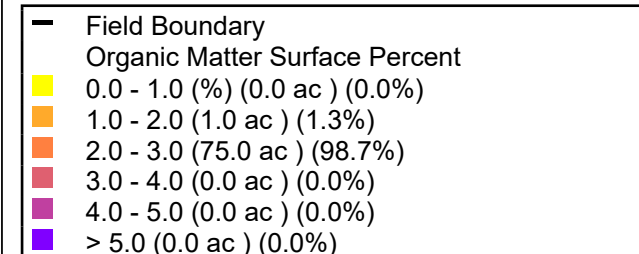
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# Organic Matter Surface

Grower: Ritchie Tarn  
Farm: Advantage Trust  
Field: D Hoffman 33  
Area: 76.04 ac  
Event Date(s): 5/16/2019

Season: 2019  
Min: 1.85 Percent  
Avg: 2.43 Percent  
Max: 2.92 Percent

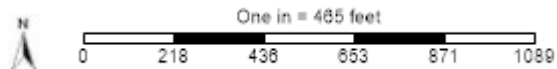
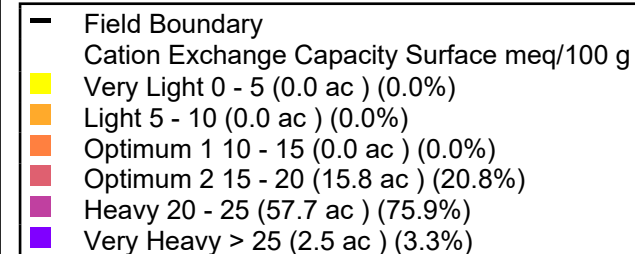




# Cation Exchange Capacity Surface

Grower: Ritchie Tarn  
Farm: Advantage Trust  
Field: D Hoffman 33  
Area: 76.04 ac  
Event Date(s): 5/16/2019

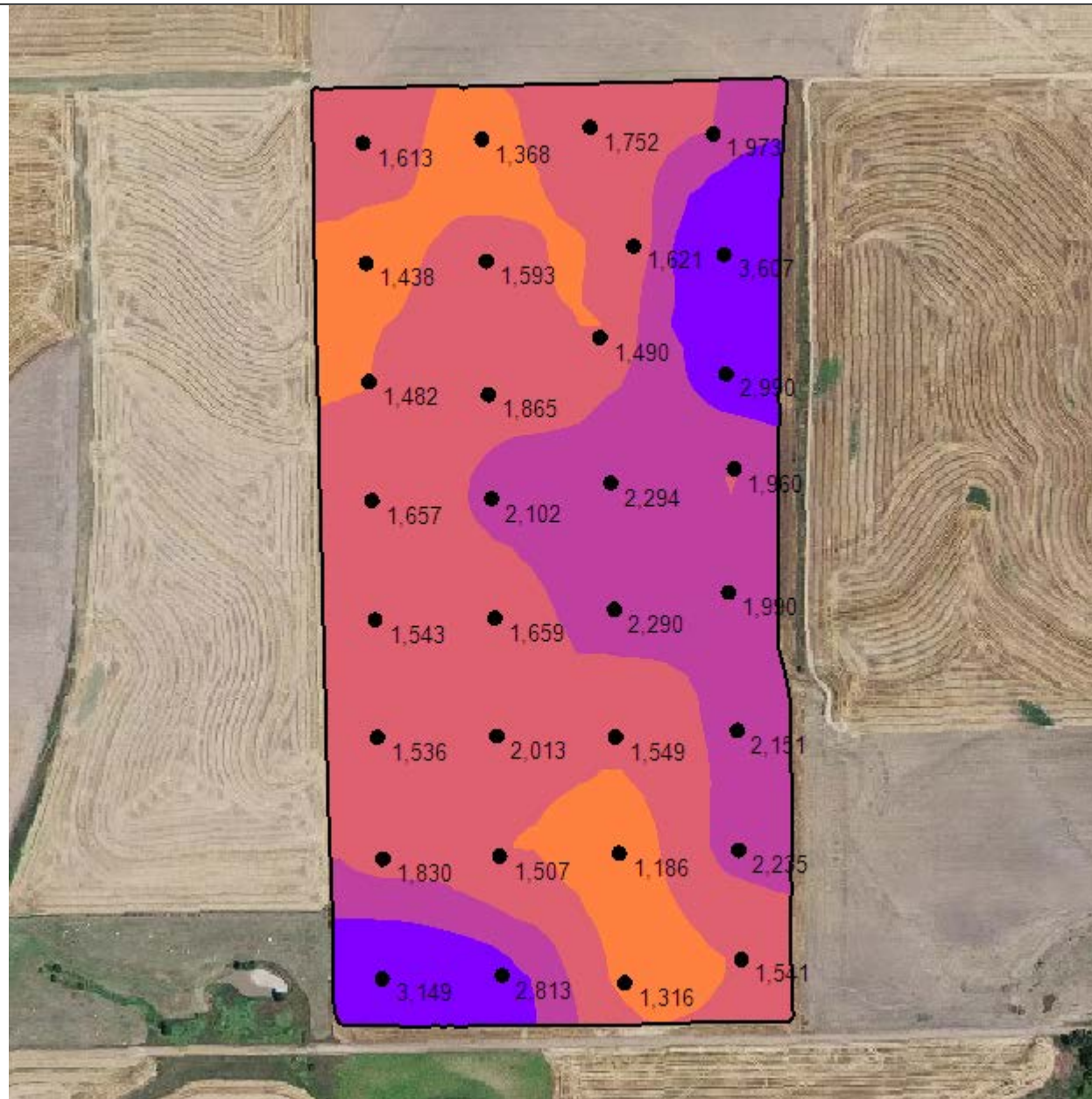
Season: 2019  
Min: 16.58 meq/100 g  
Avg: 21.59 meq/100 g  
Max: 26.06 meq/100 g



# Calcium Surface

Grower: Ritchie Tarn  
Farm: Advantage Trust  
Field: D Hoffman 33  
Area: 76.04 ac  
Event Date(s): 5/16/2019

Season: 2019  
Min: 1,216.08 ppm  
Avg: 1,900.23 ppm  
Max: 3,526.84 ppm



One in = 485 feet

0 218 436 653 871 1089



# Magnesium Surface

Grower: Ritchie Tarn  
Farm: Advantage Trust  
Field: D Hoffman 33  
Area: 76.04 ac  
Event Date(s): 5/16/2019

Season: 2019  
Min: 353.47 ppm  
Avg: 876.42 ppm  
Max: 1,579.44 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 (0.4 ac ) (0.5%)
- Excess > 375 ppm (75.7 ac ) (99.5%)



One in = 485 feet  
0 218 436 653 871 1089



## Sulfur - ppm

Grower: Ritchie Tarn  
Farm: Advantage Trust  
Field: D Hoffman 33  
Area: 76.04 ac  
Event Date(s): 5/16/2019

Season: 2019  
Min: 5.04 ppm  
Avg: 7.58 ppm  
Max: 10.88 ppm



- Field Boundary
- Sulfur Surface ppm
- Very Low 0 - 5 ppm (0.0 ac ) (0.0%)
- Low 5 - 10 ppm (74.9 ac ) (98.4%)
- Medium 10 - 15 ppm (1.2 ac ) (1.6%)
- 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 = 485 feet

0 218 436 653 871 1089



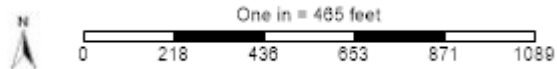
# Zinc Surface

Grower: Ritchie Tarn  
Farm: Advantage Trust  
Field: D Hoffman 33  
Area: 76.04 ac  
Event Date(s): 5/16/2019

Season: 2019  
Min: 0.33 ppm  
Avg: 0.91 ppm  
Max: 1.55 ppm



—	Field Boundary
	Zinc Surface ppm
Yellow	Very Low 0 - 0.5 ppm (2.6 ac ) (3.4%)
Orange	Low 0.5 - 1.0 ppm (50.7 ac ) (66.6%)
Red	Medium 1.0 - 2.5 ppm (22.8 ac ) (30.0%)
Pink	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%)

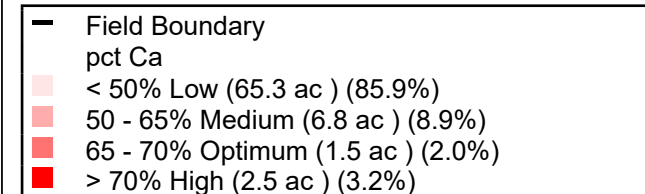
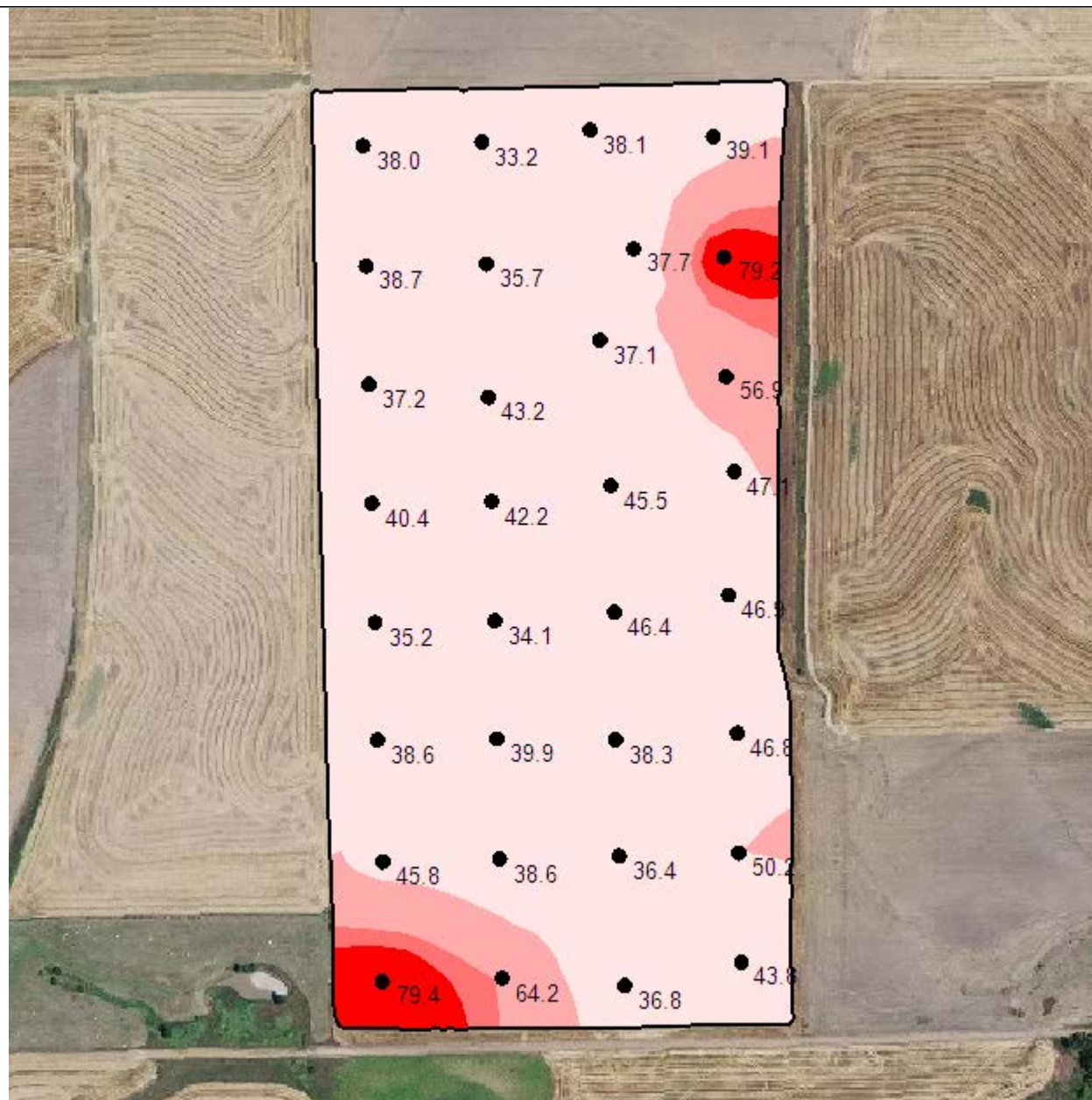




# pct Ca

Grower: Ritchie Tarn  
Farm: Advantage Trust  
Field: D Hoffman 33  
Area: 76.04 ac  
Event Date(s): 5/16/2019

Season: 2019  
Min: 33.52  
Avg: 43.81  
Max: 78.64



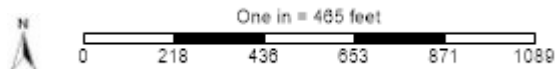
One in = 485 feet  
0 218 436 653 871 1089



# pct H

Grower: Ritchie Tarn  
Farm: Advantage Trust  
Field: D Hoffman 33  
Area: 76.04 ac  
Event Date(s): 5/16/2019

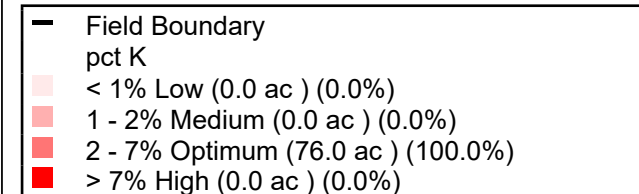
Season: 2019  
Min: 5.19  
Avg: 22.14  
Max: 42.93



# pct K

Grower: Ritchie Tarn  
Farm: Advantage Trust  
Field: D Hoffman 33  
Area: 76.04 ac  
Event Date(s): 5/16/2019

Season: 2019  
Min: 2.16  
Avg: 3.01  
Max: 3.66



One in = 485 feet  
0 218 436 653 871 1089

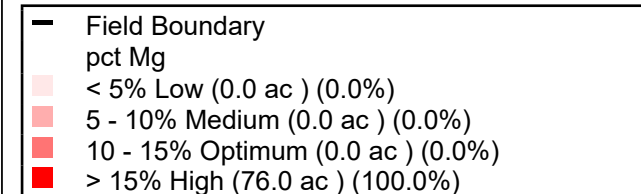




# pct Mg

Grower: Ritchie Tarn  
Farm: Advantage Trust  
Field: D Hoffman 33  
Area: 76.04 ac  
Event Date(s): 5/16/2019

Season: 2019  
Min: 16.24  
Avg: 33.22  
Max: 52.24



One in = 485 feet  
0 218 436 653 871 1089



P Bray 1 Surface (2019)



P Product Recommendation (2019)



Grower: Ritchie Tarn  
Farm: Advantage Trust  
Field: D Hoffman 33  
Area: 76.04 ac

Event Date(s): 5/16/2019  
Season: 2019  
Min: 5.45 ppm  
Avg: 31.11 ppm  
Max: 50.16 ppm

Season: 2019  
Min Rate: 50.00 lb/ac  
Avg Rate: 52.96 lb/ac  
Max Rate: 110.00 lb/ac  
Total Product: 2,395.00 lb  
Applied Area: 45.23 ac  
Product: 11-52-0 MAP

Order Id: 766064  
Order Task Id: 21191493  
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
■	Very Low 0 - 5 ppm (0.0 ac ) (0.0%)
■	Low 5 - 12 ppm (2.7 ac ) (3.5%)
■	Medium 12 - 22 ppm (6.1 ac ) (8.1%)
■	Optimum 22 - 27 ppm (21.2 ac ) (27.9%)
■	High 27 - 35 ppm (15.2 ac ) (20.0%)
■	Excess > 35 ppm (30.8 ac ) (40.5%)

—	Field Boundary
	P Product Recommendation lb/ac
■	50 (39.7 ac ) (52.3%)
■	60 (2.2 ac ) (2.9%)
■	70 (0.9 ac ) (1.2%)
■	80 (1.2 ac ) (1.6%)
■	90 (0.5 ac ) (0.6%)
■	100 (0.4 ac ) (0.5%)
■	110 (0.3 ac ) (0.4%)

Potassium Surface (2019)



K Product Recommendation (2019)



Grower: Ritchie Tarn  
Farm: Advantage Trust  
Field: D Hoffman 33  
Area: 76.04 ac

Event Date(s): 5/16/2019  
Season: 2019  
Min: 189.48 ppm  
Avg: 252.36 ppm  
Max: 315.16 ppm

Season: 2019  
Min Rate: 40.00 lb/ac  
Avg Rate: 41.70 lb/ac  
Max Rate: 70.00 lb/ac  
Total Product: 2,048.09 lb  
Applied Area: 49.11 ac  
Product: 0-0-60

Order Id: 766064  
Order Task Id: 21191475  
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 (0.0 ac ) (0.0%)
■	Optimum 150 - 200 ppm (1.2 ac ) (1.6%)
■	High 200 - 250 ppm (29.1 ac ) (38.3%)
■	Very High > 250 ppm (45.7 ac ) (60.1%)

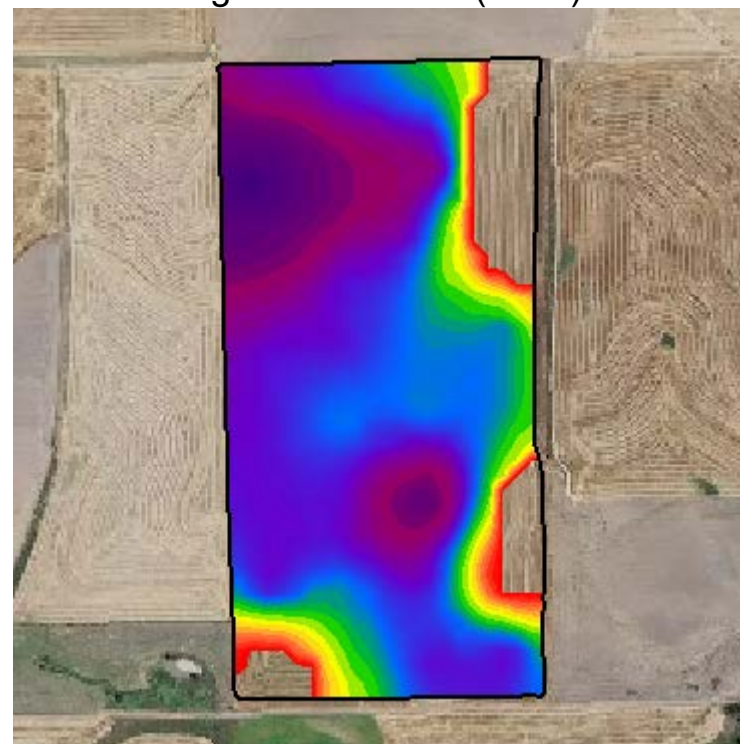
—	Field Boundary
	K Product Recommendation lb/ac
■	40 (43.1 ac ) (56.7%)
■	50 (3.7 ac ) (4.9%)
■	60 (2.1 ac ) (2.7%)
■	70 (0.2 ac ) (0.2%)



pH Surface (2019)



Ag Lime 50 ECC (2019)



Grower: Ritchie Tarn  
Farm: Advantage Trust  
Field: D Hoffman 33  
Area: 76.04 ac

Event Date(s): 5/16/2019  
Season: 2019  
Min: 4.94  
Avg: 5.86  
Max: 7.89

Season: 2019  
Min Rate: 500.00 lb/ac  
Avg Rate: 9,665.22 lb/ac  
Max Rate: 19,700.00 lb/ac  
Total Product: 642,965.61 lb  
Applied Area: 66.52 ac  
Product: Lime, Ag

Order Id: 766064  
Order Task Id: 21191466  
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 (0.1 ac ) (0.1%)
Orange	Acidic 5.1 - 5.5 pH (19.7 ac ) (25.9%)
Light Orange	Slightly Acidic 5.5 - 6.1 pH (39.2 ac ) (51.5%)
Pink	Grain Optimum 6.1 - 6.6 pH (9.4 ac ) (12.4%)
Purple	Alfalfa Optimum 6.6 - 7.5 pH (6.4 ac ) (8.4%)
Dark Purple	Alkaline > 7.5 pH (1.3 ac ) (1.7%)

—	Field Boundary
Red	Lime Product Recommendation lb/ac
Red	500 - 1600 (0.3 ac ) (0.4%)
Orange	2100 - 3700 (1.5 ac ) (2.0%)
Yellow	4000 - 5800 (3.7 ac ) (4.9%)
Green	5900 - 7500 (7.0 ac ) (9.3%)
Blue	7600 - 9100 (15.4 ac ) (20.2%)
Purple	9200 - 11000 (22.3 ac ) (29.3%)
Dark Purple	11100 - 14200 (11.1 ac ) (14.7%)
Black	14300 - 19700 (5.1 ac ) (6.7%)

Sulfur - ppm (2019)



Sulfur Product Recommendation (2019)



Grower: Ritchie Tarn  
Farm: Advantage Trust  
Field: D Hoffman 33  
Area: 76.04 ac

Event Date(s): 5/16/2019  
Season: 2019  
Min: 5.04 ppm  
Avg: 7.58 ppm  
Max: 10.88 ppm

Season: 2019  
Min Rate: 7.00 lb/ac  
Avg Rate: 9.56 lb/ac  
Max Rate: 12.00 lb/ac  
Total Product: 727.02 lb  
Applied Area: 76.04 ac  
Product: Sulfur  
  
Order Id: 766064  
Order Task Id: 21191484  
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 (0.0 ac ) (0.0%)  
Low 5 - 10 ppm (74.9 ac ) (98.4%)  
Medium 10 - 15 ppm (1.2 ac ) (1.6%)  
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%)

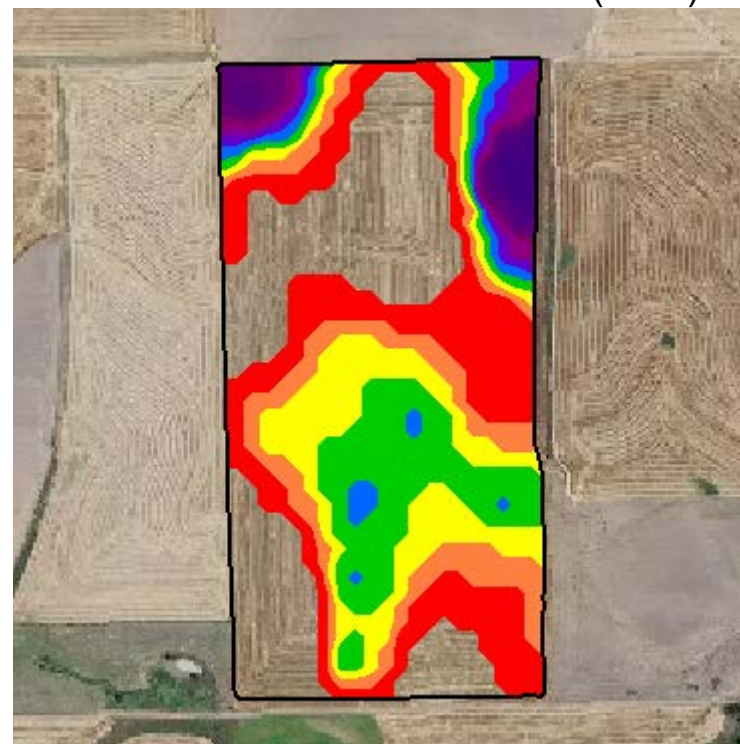
— Field Boundary  
Sulfur Product Recommendation lb/ac  
7 (1.4 ac ) (1.8%)  
8 (8.1 ac ) (10.6%)  
9 (26.5 ac ) (34.9%)  
10 (28.2 ac ) (37.0%)  
11 (10.3 ac ) (13.5%)  
12 (1.6 ac ) (2.1%)



# Zinc Surface (2019)



# Zinc Product Recommendation (2019)

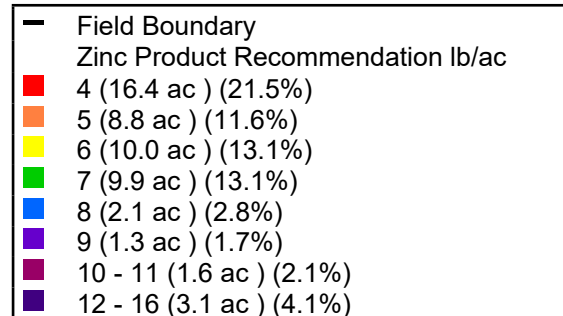
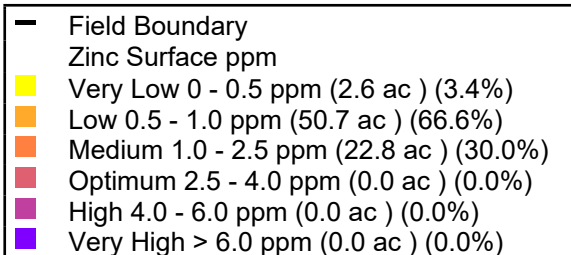


Grower: Ritchie Tarn  
Farm: Advantage Trust  
Field: D Hoffman 33  
Area: 76.04 ac

Event Date(s): 5/16/2019  
Season: 2019  
Min: 0.33 ppm  
Avg: 0.91 ppm  
Max: 1.55 ppm

Season: 2019  
Min Rate: 4.00 lb/ac  
Avg Rate: 6.15 lb/ac  
Max Rate: 16.00 lb/ac  
Total Product: 327.59 lb  
Applied Area: 53.23 ac  
Product: Zinc Sulfate

Order Id: 766064  
Order Task Id: 21191502  
Crop - Year 1: SOYBEANS  
Purpose - Year 1: Dry Grain  
Yield Goal - Year 1: 40  
Task: Main Recs - Zn Rec



# Product Summary

Season: 2019  
Grower: Ritchie Tarn  
Farm: Advantage Trust  
Field: D Hoffman 33  
Area: 76.04 ac

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## K2O

Recommendation	Rec Acres	Avg Rec Rate	App Acres	Avg App Rate	Total Product
0-0-60 766064 21191475 5/31/2019 2:22:20 PM(local) Soybeans Dry Grain 40	76.0	26.9 lb/ac	49.1	41.7 lb/ac	2,048.1 lb

## Lime

Recommendation	Rec Acres	Avg Rec Rate	App Acres	Avg App Rate	Total Product
Lime, Ag 766064 21191466 5/31/2019 2:22:20 PM(local) Soybeans Dry Grain	76.0	8,455.3 lb/ac	66.5	9,665.2 lb/ac	642,965.6 lb

## P2O5

Recommendation	Rec Acres	Avg Rec Rate	App Acres	Avg App Rate	Total Product
11-52-0 MAP 766064 21191493 5/31/2019 2:22:20 PM(local) SOYBEANS Dry Grain 40 No	76.0	31.5 lb/ac	45.2	53.0 lb/ac	2,395.0 lb

## Sulfur

Recommendation	Rec Acres	Avg Rec Rate	App Acres	Avg App Rate	Total Product
Sulfur 766064 21191484 5/31/2019 2:22:20 PM(local) Soybeans Dry Grain 40	76.0	9.6 lb/ac	76.0	9.6 lb/ac	727.0 lb



## Zinc

Recommendation	Rec Acres	Avg Rec Rate	App Acres	Avg App Rate	Total Product
Zinc Sulfate 766064 21191502 5/31/2019 2:22:20 PM(local) SOYBEANS Dry Grain 40	76.0	4.3 lb/ac	53.2	6.2 lb/ac	327.6 lb