



4R Certification Guidance Book

Audit Documentation Requirements Summary by Standard



Standard	Required Documents	Specific Information to Look for on the Document
T1	4R Training Certificate	-
T2	CCA Certificate	-
T3	CEU Progress Report	-
T5	4R Resources Summary & Sample Grower Email	-
R1	Soil Test Analysis Report	Organic matter / P (Olsen) / K / pH
R3/R4	Soil Sampling Protocol	-
R5	Manure Analysis	Total and available nutrients from manure
R9	Crop Yield History - Farm Specific or Agricorp Township Averages	-
A1	Recommendation Map & Application Report	Application amount is within 5% of recommended amount
A3	Weather Forecast	No frozen ground at time of application
A5	Recommendation Map & Application Report	-
A6	Calibration Record	-
A7	Weather Forecast	No rainfall forecasted within the next 12 hours
A8	Soil Test Report (Map or Table With Nutrient ppm) & Variable Rate Recommendation Map & Variable Rate Application Report	Identify variability and need for variable rate application
A9	Application Report	Method of application / time of application / field map showing location / nutrient source / rate / weather conditions
D2	Recommendation Map & Application Report	-
D4	Applicable Federal and Provincial Setback Distances	-
D5	Soil Test Map Book	Field boundary / soil type / current soil test results / nutrient recommendation / yield goal
D8	Sensitive Features Map	
D9	Watershed Map - Farm Level	-

Audit Documentation Requirements Summary by Document



Required Documents	Standard(s) this Document is Evidence For	Specific Information to Look for on the Document
4R Training Certificate	T1	-
Certified Crop Advisor (CCA) Certificate	T2	-
CEU Progress Report	T3	-
4R Resources Summary & Sample Email	T5	-
Soil Test Analysis Report	R1	Organic matter / P (Olsen) / K / pH
Soil Sampling Protocol	R3 / R4	-
Manure Analysis	R5	Total and available nutrients from manure
Crop Yield History - Farm Specific OR Agricorp Township Averages	R9	-
Recommendation Map	A1 / A5 / D2	A1: Application amount is within 5% of recommended amount
Application Report	A1 / A5 / A9 / D2	A1: Application amount is within 5% of recommended amount A9: Method of application / time of application / field map showing location / nutrient source / rate / weather conditions
Calibration Record	A6	-
Weather Forecast (12 Hours)	A3 / A7	A3: No frozen ground at time of application A7: No rainfall forecasted within the next 12 hours
Soil Test Report (Map Or Table With Nutrient ppm)	A8	Identify variability and need for variable rate application
Variable Rate Recommendation Map	A8	Identify variability and need for variable rate application
Variable Rate Application Report	A8	Identify variability and need for variable rate application
Applicable Federal and Provincial Setback Distances	D4	-
Soil Test Map Book	D5	Field boundary / soil type / current soil test results / nutrient recommendation / yield goal
Sensitive Features Map	D8	-
Watershed Map: Farm Level	D9	-

Standard T1





FERTILIZER CANADA
FERTILISANTS CANADA

eLearning

Certificate of Completion

This document certifies that

Paul Warriner

has successfully completed the
4R Essentials - A Short Course in 4R Nutrient Stewardship



FERTILIZER CANADA
FERTILISANTS CANADA

Fertilizer Canada

March 12, 2016

March 12, 2021

Date

Expiry Date

WarrinerAg #4649 - CCA #335191



4R Certification Training Recommendations

Visit elearning.fertilizercanada.ca for all available courses



Standard T1:

All applicable staff have undergone an initial 4R training. Evidence should include: meeting agendas, staff sign-in education log, training materials indicating 4R concepts and topics covered. Staff should be interviewed to answer key 4R concepts (Right Source @ Right Rate, Right Time, Right Place). Note: 4R Educational information and sample presentations are available at eLearning.fertilizercanada.ca & 4r.fertilizercanada.ca

Recommendations for all current and new staff: 4R Essentials



**Photo directs you to elearning.fertilizercanada.ca*

Other options:

- In-person training by a Fertilizer Canada speaker or approved representative (note: non Fertilizer Canada training material must be approved in writing by Fertilizer Canada)

Standard T4:

All applicable staff has undergone applicable 4R training. Evidence should include listing of applicable training sessions attended including meeting agendas; training materials covered indicating 4R concepts and verification of attendance.

Recommendation: 4R Nutrient Stewardship Training part 1-3



*Photo directs you to elearning.fertilizercanada.ca

Other options:

- In-person training by a Fertilizer Canada speaker or approved representative (note: non Fertilizer Canada training material must be approved in writing by Fertilizer Canada)
- NERP Training Program, 4R Nutrient Stewardship and Greenhouse Gas Reduction, or 4R Nutrient Stewardship – Ontario (See next page)

**Photos direct you to elearning.fertilizercanada.ca*

Nutrient Stewardship



NERP Training Program

Nutrient Stewardship



4R Nutrient Stewardship –
Ontario

Nutrient Stewardship



4R Nutrient Stewardship and
Greenhouse Gas Reduction

Standard T2



The American Society of Agronomy

Ontario
Certified Crop Adviser Board

has conferred upon

Paul Gordon Garry Warriner

the designation of

4R Nutrient Management Specialist

By successfully fulfilling the requirements, passing rigorous examinations,
subscribing to the Code of Ethics,
and committing to ongoing professional development.

Certification Effective From:
1/1/2018 to 12/31/2019

Certification Number:
335191




ASA President


Ontario CCA Board Chair

Standard T3





Certification Programs

American Society of Agronomy

5585 Guilford Road, Madison, WI 53711-5801 * Toll-Free Phone: (866) 359-9161 *

CEU Statement for CEU Cycle: **01-01-2018 - 12-31-2019**

Contact # 335191

Mr. Paul G. G. Warriner

Blenheim, ON, CANADA, N0P

1A0

E-Mail: p.j.warriner@gmail.com

You currently have the following certification(s):

Total CEUs

Certification(s)	Certification Date
Certified Crop Adviser-Ontario	08-31-2009
CCA 4R NMS	08-05-2016

16.5
Reported

40.0
Minimum

0.0
Adjustment

16.5
Accepted

All Req Met



CEU Category - Summary

#	Category	Reported	Minimum	Req Met Status
1	Board Approved	16.5	20.0	✗
2	Self Reported	0.0	0.0	✓

Course Detail

Course Id	Course Name	Date	NM	SW	PM	CM	PD	Total
ON 54051	Maizex Agronomy Days	01-19-2018	0.0	0.5	0.0	0.0	0.0	0.5
SS 52865	Nitrogen Use Efficiency: Understanding N Movement, Timing and Rate	01-24-2018	1.0	0.5	0.0	0.0	0.0	1.5
ON 54057	Knowledge Harvest East	02-01-2018	0.0	0.0	1.5	1.5	1.0	4.0
ON 54255	Soil Health Conference - Reduce Tillage	02-15-2018	0.0	0.5	0.0	0.0	0.0	0.5
ON 54259	Soil Health Conference - Soil Stewards on Big Acres	02-15-2018	0.5	0.0	0.0	0.0	0.0	0.5
ON 54260	Soil Health Conference - Making Interseeding Work	02-15-2018	0.5	0.0	0.0	0.0	0.0	0.5
ON 54261	Soil Health Conference - Phosphorus Primer	02-15-2018	0.5	0.0	0.0	0.0	0.0	0.5
ON 54262	Soil Health Conference - Make Your Soil Smoke: Cover Crops, Drainage, Earthworms and More!	02-15-2018	0.0	1.0	0.0	0.0	0.0	1.0
ON 54263	Soil Health Conference - Soil Degradation - The Cost to Agriculture and the Economy	02-15-2018	0.0	1.0	0.0	0.0	0.0	1.0
ON 54264	Soil Health Conference - Managing Microbes: Mycorrhizal Fungi in Cropping Systems	02-15-2018	0.0	1.0	0.0	0.0	0.0	1.0
ON 54265	Soil Health Conference - 4R Nutrient Stewardship	02-15-2018	1.0	0.0	0.0	0.0	0.0	1.0

CEU Category - Detail

#	Category	Reported	Minimum	Req Met Status
1	Nutrient Management	5.0	7.5	✗
2	Soil & Water Management	6.5	7.5	✗
3	Integrated Pest Management	1.5	5.0	✗
4	Crop Management	2.5	5.0	✗
5	Professional Development	1.0	0.0	✓

Course Id	Course Name	Date	NM	SW	PM	CM	PD	Total
ON 54266	Soil Health Conference - In the Field Soil Health Tests	02-15-2018	0.0	0.5	0.0	0.0	0.0	0.5
ON 54321	Sales and Agronomy Meeting	02-22-2018	0.5	1.5	0.0	0.0	0.0	2.0
ON 54196	Devolder Farms Game Plan 2018	07-07-2018	1.0	0.0	0.0	1.0	0.0	2.0
Total			5.0	6.5	1.5	2.5	1.0	16.5

Need more CEUs? Visit: <https://www.certifiedcropadviser.org/education/classroom/classes/by-category>

Standard T5



Example 4R Nutrient Stewardship Certification info email/mail chip for grower customers

Standard T5:

Nutrient Service Provider has conveyed informational materials on 4R Nutrient Stewardship to all grower customers on an annual basis.

Recommendation:

Fertilizer is an important input for growers providing nutrients to plants that are not readily available in the soil, helping growers to foster plant growth and increase yields.

The fertilizer industry has established the 4R Nutrient Stewardship framework in cooperation with government, researchers, customers, farm organizations, conservation groups and the public.

4R Nutrient Stewardship (Right Source @ Right Rate, Right Time, Right Place®) lets the world know when food has been sustainably grown. The framework balances grower, industry and government goals to improve on-farm economics, crop productivity and fertilizer efficiency while benefiting the environment.

Adjustments in the crop nutrient source and application rate, timing, and placement methods will support agricultural productivity while also helping to improve the water quality of the Great Lakes, specifically Lake Erie and its contributing watersheds.

By supporting the need to protect and restore the ecological health of significant water bodies, the Ontario agriculture industry is committed to being a part of the solution to ensuring the Great Lakes remain “drinkable, swimmable and fishable.” The industry recognizes the potential for regulations, the importance of environmental stewardship and its role in ensuring the proper use of fertilizer.

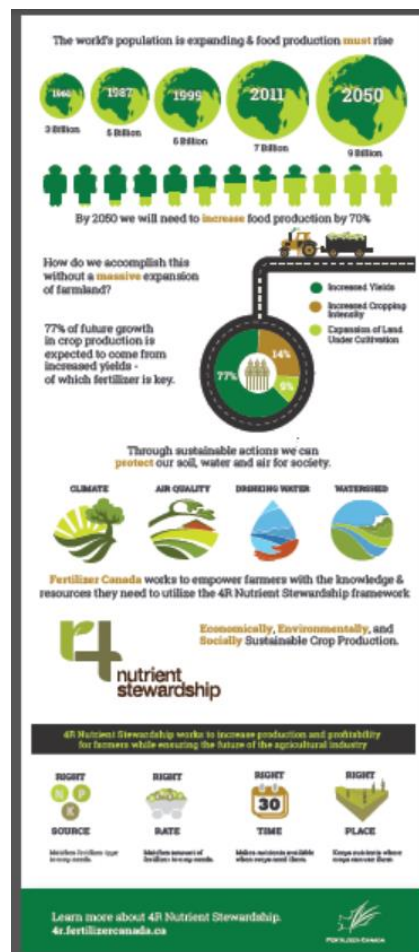
The 4R Ontario Steering Committee has developed and implemented a 4R Certification program in Ontario to support the adoption of 4R Nutrient Stewardship by specifying best practices for nutrient recommendations and nutrient application. The 4R Nutrient Stewardship Certification program is voluntary, and applies to Nutrient Service Providers working in the Lake Erie watershed region and all of Ontario, including agricultural retailers, agricultural service providers and certified professionals.

4R Certification in Ontario allows agri-retailers to align their business practices with the sustainability principles of 4R Nutrient Stewardship in order to provide their grower customers with the best in nutrient management advice to increase grower profitability and environmental stewardship.

Ask your Nutrient Service Provider about the 4R Nutrient Stewardship program today and start implementing nutrient best management practices that can help you increase crop production and reduce nutrient loss. Researchers have recently proven several benefits from implementing 4R practices on Ontario farms, such as:

- Reducing greenhouse gas emissions by up to 75 per cent by combining the use of urea-ammonium nitrate (UAN) with nitrification inhibitors at the eighth-leaf growing stage of corn;
- Increasing corn yields by as much as 20 per cent and eliminating harmful ammonia loss to soil by combining injection placement with UAN fertilizer, compared to broadcasting;
- Reducing phosphorus runoff by 60 per cent by subsurface banding instead of broadcasting.

Sustainable farming is the future. In many cases, that future is already underway. Let's demonstrate how we are leaders in sustainable agriculture.



Made possible through
funding by:



The 4R Certification standards were created by the 4R Ontario Steering Committee in close collaboration with the Nutrient Stewardship Council, the Ohio Agri-Business Association and The Fertilizer Institute in the U.S. to ensure alignment between crop-border efforts to implement 4R Nutrient Stewardship and minimize nutrient losses under the 4R Certification Program. The standards are reflective of the best available science, technology and regulatory requirements for Ontario conditions.

Members of the 4R Ontario Steering Committee represent a diversity of stakeholders including Fertilizer Canada, the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA), the Ontario Agri-Business Association (OABA), the Grain Farmers of Ontario, the Ontario Federation of Agriculture, the Christian Farmers Federation of Ontario, Conservation Ontario, The Nature Conservancy - Ohio, the Ministry of the Environment and Climate Change, the International Plant Nutrition Institute, the Ontario Certified Crop Advisor Board, and Ontario agri-retailers.



Right Source © Right Rate, Right Time, Right Place®

4rcertified.ca
4rcertification@fertilizercanada.ca
(613) 230-2600



FERTILIZER CANADA

Program administered by
Fertilizer Canada on behalf of the
4R Ontario Steering Committee



4R Nutrient Stewardship Certification Program in Ontario

Voluntary program for Ontario agri-retailers
and nutrient service providers implementing
4R Nutrient Stewardship



Resources

Learn More about 4R Nutrient Stewardship

Visit the following websites: 4R.fertilizercanada.ca

nutrientstewardship.com

ipni.net/4R

www.conservation-ontario.on.ca/

Read: 4R Plant Nutrition Management Manual

by IPNI (International Plant Nutrition Institute)

Available for download in an eBook version
from Amazon or iTunes

Learn More about GLASI – Farmland Health Check-Up

Visit the GLASI website: ontariosoilcrop.org/oscia-programs/glasi/

Towards Implementing 4R Nutrient Stewardship Practices on YOUR Farm



Standard R1



Report Number: C15271-10013
Account Number: 06215

A & L Canada Laboratories Inc.

2136 Jetstream Road, London, Ontario, N5V 3P5
Telephone: (519) 457-2575 Fax: (519) 457-2664



C15271-10013



To: WARRINER AG
18800 LAGOON RD
RR#3
BLENHEIM, ON N0P 1A0
Attn: LYNNE WARRINER

For: HAT TRICK FARMS

Farm: HOME FARM
Field: FIELD 1

Grower Code: HTF0068

Reported Date: Printed Date:2015-09-30

SOIL TEST REPORT

Page:1

Sample Number	Lab Number	Organic Matter	Phosphorus - P ppm Bicarb Bray-P1	Potassium K ppm	Magnesium Mg ppm	Calcium Ca ppm	Sodium Na ppm	pH	CEC meq/100g	Percent Base Saturations					
								Buffer		% K	% Mg	% Ca	% H	% Na	
1	56900	3.7	38 M	70 M	180 H	200 M	2190 H	7.2	13.8	3.4	12.1	79.5	4.6	0.4	
2	56901	2.6	28 M	55 M	132 M	170 M	1890 M	7.0	13.0	2.6	10.9	72.9	12.9	0.6	
3	56902	2.5	28 M	56 M	181 H	125 L	2250 H	7.0	14.7	3.2	7.1	76.4	13.0	0.4	
4	56903	3.2	38 M	81 M	248 VH	170 M	1980 H	7.2	12.6	5.1	11.3	78.6	4.6	0.4	
Sample Number	Sulfur S ppm	Zinc Zn ppm	Manganese Mn ppm	Iron Fe ppm	Copper Cu ppm	Boron B ppm	Soluble Salts ms/cm	Saturation %P	Aluminum Al ppm	Saturation %Al	Nitrate Nitrogen NO3-N ppm	K/Mg Ratio	ENR	Field ID	
1		6.2 H	71 VH					6 M	607	0.1 G		0.28	49		
2		5.6 H	68 VH					12 H	591	0.1 G		0.24	38		
3		3.9 M	55 VH					14 H	529	0.1 G		0.45	37		
4		5.4 H	77 VH					7 M	536	0.1 G		0.45	44		

OE VL = VERY LOW, L = LOW, M = MEDIUM, H = HIGH, VH = VERY HIGH, G = GOOD, MA = MARGINAL, MT = MODERATE PHYTO-TOXIC, T = PHYTO-TOXIC, ST = SEVERE PHYTO-TOXIC

SOIL FERTILITY GUIDELINES (lbs/ac)

Sample Number	Crop	Yield Goal	Lime Tons/Acre	N	P2O5	K2O	Mg	Ca	S	Zn	Mn	Fe	Cu	B
1	Corn	200 bu	0.0	245	40	80	10	0		2.0	0			
1	Soybeans	60 bu	0.0	0	30	60	10	0		0.0	0			
2	Corn	200 bu	0.0	255	40	170	15	0		2.5	0			
2	Soybeans	60 bu	0.0	0	30	100	15	0		0.5	0			
3	Corn	200 bu	0.0	255	40	85	20	0		3.0	0			
3	Soybeans	60 bu	0.0	0	30	60	20	0		1.0	0			
4	Corn	200 bu	0.0	250	40	50	15	0		2.5	0			
4	Soybeans	60 bu	0.0	0	30	60	15	0		0.5	0			

The results of this report relate to the sample submitted and analyzed.

* Crop yield is influenced by a number of factors in addition to soil fertility.

Results Authorized By:

Ian McLachlin, Vice President

No guarantee or warranty concerning crop performance is made by A & L.

A&L Canada Laboratories Inc. is accredited by the Standards Council of Canada for specific tests as listed on www.scc.ca and by the Canadian Association for Laboratory Accreditation as listed on www.cala.ca

Report Number: C15271-10013
Account Number: 06215

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Grower Code: HTF0068

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SOIL TEST REPORT

Page:2

Sample Number	Lab Number	Organic Matter	Phosphorus - P ppm Bicarb Bray-P1	Potassium K ppm	Magnesium Mg ppm	Calcium Ca ppm	Sodium Na ppm	pH	CEC meq/100g	Percent Base Saturations	% K	% Mg	% Ca	% H	% Na
5	56904	3.9	39 G	81 G	226 H	190 L	2840 VH	17 L	7.5	16.4	3.5	9.6	86.5	0.5	
6	56905	3.3	33 M	44 M	134 M	175 M	2100 H	18 L	7.5	12.4	2.8	11.8	84.9	0.6	
7	56906	3.2	33 M	46 M	154 H	180 M	2090 H	16 L	7.4	12.4	3.2	12.1	84.3	0.6	
8	56907	3.1	20 L	31 L	122 M	180 M	1660 M	12 L	6.9	11.3	2.8	13.2	73.2	10.4	0.5
Sample Number	Sulfur S ppm	Zinc Zn ppm	Manganese Mn ppm	Iron Fe ppm	Copper Cu ppm	Boron B ppm	Soluble Salts ms/cm	Saturation %P	Aluminum Al ppm	Saturation %Al	Nitrate Nitrogen NO3-N ppm	K/Mg Ratio	ENR	Field ID	
5		5.6 H	66 VH					6 M	466	0.0 G		0.36	51		
6		4.0 M	68 VH					3 VL	535	0.0 G		0.24	45		
7		4.1 M	76 VH					4 L	502	0.0 G		0.26	44		
8		3.7 M	63 VH					7 M	586	0.1 G		0.21	43		

OE VL = VERY LOW, L = LOW, M = MEDIUM, H = HIGH, VH = VERY HIGH, G = GOOD, MA = MARGINAL, MT = MODERATE PHYTO-TOXIC, T = PHYTO-TOXIC, ST = SEVERE PHYTO-TOXIC

SOIL FERTILITY GUIDELINES (lbs/ac)

Sample Number	Crop	Yield Goal	Lime Tons/Acre	N	P2O5	K2O	Mg	Ca	S	Zn	Mn	Fe	Cu	B
5	Corn	200 bu	0.0	245	40	50	15	0		3.0	0			
5	Soybeans	60 bu	0.0	0	30	60	15	0		1.0	0			
6	Corn	200 bu	0.0	250	45	165	10	0		3.5	0			
6	Soybeans	60 bu	0.0	0	30	90	10	0		1.5	0			
7	Corn	200 bu	0.0	250	40	125	10	0		3.5	0			
7	Soybeans	60 bu	0.0	0	30	60	10	0		1.5	0			
8	Corn	200 bu	0.0	250	85	180	10	0		3.0	0			
8	Soybeans	60 bu	0.0	0	55	110	10	0		1.0	0			

The results of this report relate to the sample submitted and analyzed.

* Crop yield is influenced by a number of factors in addition to soil fertility.

Results Authorized By:

Ian McLachlin, Vice President

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SOIL TEST REPORT

Page:3

Sample Number	Lab Number	Organic Matter	Phosphorus - P ppm Bicarb	Bray-P1	Potassium K ppm	Magnesium Mg ppm	Calcium Ca ppm	Sodium Na ppm	pH	CEC meq/100g	Percent Base Saturations	% K	% Mg	% Ca	% H	% Na
9	56908	2.9	17 L	24 L	147 M	170 L	3260 VH	13 VL	7.5	18.1	2.1	7.8	89.9			0.3
10	56909	3.4	16 L	30 L	141 M	170 L	2660 VH	11 VL	7.5	15.1	2.4	9.4	88.0			0.3
11	56910	2.8	20 L	23 VL	106 M	165 M	2240 VH	15 L	7.5	12.9	2.1	10.7	86.9			0.5
12	56911	3.0	24 L	36 L	150 H	150 M	1370 M	15 M	7.0	9.8	3.9	12.7	69.8	12.9		0.7
Sample Number	Sulfur S ppm	Zinc Zn ppm	Manganese Mn ppm	Iron Fe ppm	Copper Cu ppm	Boron B ppm	Soluble Salts ms/cm	Saturation %P	Aluminum Al ppm	Saturation %Al	Nitrate Nitrogen NO3-N ppm	K/Mg Ratio	ENR	Field ID		
9		2.7 L	76 VH					2 L	459	0.0 G		0.27	41			
10		3.2 M	68 VH					2 VL	466	0.0 G		0.26	46			
11		2.9 L	64 VH					2 VL	587	0.0 G		0.20	40			
12		2.5 L	39 H					5 L	884	0.2 G		0.31	42			

OE VL = VERY LOW, L = LOW, M = MEDIUM, H = HIGH, VH = VERY HIGH, G = GOOD, MA = MARGINAL, MT = MODERATE PHYTO-TOXIC, T = PHYTO-TOXIC, ST = SEVERE PHYTO-TOXIC

SOIL FERTILITY GUIDELINES (lbs/ac)

Sample Number	Crop	Yield Goal	Lime Tons/Acre	N	P2O5	K2O	Mg	Ca	S	Zn	Mn	Fe	Cu	B
9	Corn	200 bu	0.0	255	85	175	20	0		4.5	0			
9	Soybeans	60 bu	0.0	0	55	95	20	0		2.5	0			
10	Corn	200 bu	0.0	250	70	170	15	0		4.0	0			
10	Soybeans	60 bu	0.0	0	45	90	15	0		2.0	0			
11	Corn	200 bu	0.0	255	115	220	15	0		4.0	0			
11	Soybeans	60 bu	0.0	0	70	150	15	0		2.0	0			
12	Corn	200 bu	0.0	250	70	115	10	0		4.0	0			
12	Soybeans	60 bu	0.0	0	45	60	10	0		2.0	0			

The results of this report relate to the sample submitted and analyzed.

* Crop yield is influenced by a number of factors in addition to soil fertility.

No guarantee or warranty concerning crop performance is made by A & L.

Results Authorized By:

Ian McLachlin, Vice President

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For: HAT TRICK FARMS

Farm: HOME FARM
Field: FIELD 1

Grower Code: HTF0068

Reported Date: Printed Date:2015-09-30

SOIL TEST REPORT

Page:4

Sample Number	Lab Number	Organic Matter	Phosphorus - P ppm Bicarb Bray-P1	Potassium K ppm	Magnesium Mg ppm	Calcium Ca ppm	Sodium Na ppm	pH	pH Buffer	CEC meq/100g	Percent Base Saturations				
											% K	% Mg	% Ca	% H	% Na
13	56912	5.7	56 H	137 H	194 H	280 L	4880 VH	47 M	7.6		27.4	1.8	8.5	89.0	0.7
14	56913	3.8	35 G	64 G	192 H	215 L	3750 VH	24 L	7.6		21.1	2.3	8.5	88.8	0.5
15	56914	3.6	38 M	57 M	178 H	180 M	2110 H	15 L	6.7	6.9	13.8	3.3	10.9	76.7	8.6
16	56915	2.9	33 M	65 M	148 H	160 M	1960 H	13 L	7.5		11.6	3.3	11.5	84.8	0.5
Sample Number	Sulfur S ppm	Zinc Zn ppm	Manganese Mn ppm	Iron Fe ppm	Copper Cu ppm	Boron B ppm	Soluble Salts ms/cm	Saturation %P	Aluminum Al ppm	Saturation %Al	Nitrate Nitrogen NO3-N ppm	K/Mg Ratio	ENR	Field ID	
13		6.8 H	32 H					10 H	172	0.0 G		0.21	70		
14		4.2 M	54 VH					5 M	339	0.0 G		0.27	50		
15		4.7 M	72 VH					11 H	655	0.1 G		0.30	48		
16		4.4 M	74 VH					5 L	541	0.0 G		0.29	41		

OE VL = VERY LOW, L = LOW, M = MEDIUM, H = HIGH, VH = VERY HIGH, G = GOOD, MA = MARGINAL, MT = MODERATE PHYTO-TOXIC, T = PHYTO-TOXIC, ST = SEVERE PHYTO-TOXIC

SOIL FERTILITY GUIDELINES (lbs/ac)

Sample Number	Crop	Yield Goal	Lime Tons/Acre	N	P2O5	K2O	Mg	Ca	S	Zn	Mn	Fe	Cu	B
13	Corn	200 bu	0.0	225	40	150	20	0		2.5	0			
13	Soybeans	60 bu	0.0	0	30	60	20	0		0.5	1			
14	Corn	200 bu	0.0	245	40	110	20	0		3.5	0			
14	Soybeans	60 bu	0.0	0	30	60	20	0		1.5	0			
15	Corn	200 bu	0.0	245	40	85	15	0		2.5	0			
15	Soybeans	60 bu	0.0	0	30	60	15	0		0.5	0			
16	Corn	200 bu	0.0	255	40	130	15	0		3.5	0			
16	Soybeans	60 bu	0.0	0	30	60	15	0		1.5	0			

The results of this report relate to the sample submitted and analyzed.

* Crop yield is influenced by a number of factors in addition to soil fertility.

No guarantee or warranty concerning crop performance is made by A & L.

Results Authorized By:

Ian McLachlin, Vice President

A&L Canada Laboratories Inc. is accredited by the Standards Council of Canada for specific tests as listed on www.scc.ca and by the Canadian Association for Laboratory Accreditation as listed on www.cala.ca

Report Number: C15271-10013
Account Number: 06215

A & L Canada Laboratories Inc.

2136 Jetstream Road, London, Ontario, N5V 3P5
Telephone: (519) 457-2575 Fax: (519) 457-2664



C15271-10013



To: WARRINER AG
18800 LAGOON RD
RR#3
BLENNHEIM, ON N0P 1A0
Attn: LYNNE WARRINER

For: HAT TRICK FARMS

Farm: HOME FARM
Field: FIELD 1

Grower Code: HTF0068

Reported Date: Printed Date:2015-09-30

SOIL TEST REPORT

Page:5

Sample Number	Lab Number	Organic Matter	Phosphorus - P ppm		Potassium K ppm	Magnesium Mg ppm	Calcium Ca ppm	Sodium Na ppm	pH		CEC	Percent Base Saturations				
			Bicarb	Bray-P1					pH	Buffer	meq/100g	% K	% Mg	% Ca	% H	% Na
17	56916	3.3	33 M	56 M	148 M	195 M	1930 H	15 L	7.2		12.3	3.1	13.2	78.6	4.6	0.5
18	56917	3.5	33 M	44 M	123 M	175 M	1680 M	10 L	6.8	6.9	11.4	2.8	12.8	73.7	10.4	0.4
19	56918	6.9	75 H	188 H	379 VH	285 L	5480 VH	34 L	7.5		30.9	3.1	7.7	88.8		0.5
20	56919	2.7	16 L	19 L	95 M	195 M	2670 VH	15 L	7.6		15.3	1.6	10.6	87.5		0.4
Sample Number	Sulfur S ppm	Zinc Zn ppm	Manganese Mn ppm	Iron Fe ppm	Copper Cu ppm	Boron B ppm	Soluble Salts ms/cm	Saturation %P	Aluminum Al ppm	Saturation %Al	Nitrate Nitrogen NO3-N ppm	K/Mg Ratio	ENR	Field ID		
17		3.8 M	86 VH					5 L	622	0.1 G		0.23	45			
18		3.1 M	70 VH					9 M	610	0.1 G		0.22	47			
19		10.0 H	40 H					14 H	75	0.0 G		0.40	82			
20		4.4 M	95 VH					1 VL	535	0.0 G		0.15	39			

OE VL = VERY LOW, L = LOW, M = MEDIUM, H = HIGH, VH = VERY HIGH, G = GOOD, MA = MARGINAL, MT = MODERATE PHYTO-TOXIC, T = PHYTO-TOXIC, ST = SEVERE PHYTO-TOXIC

SOIL FERTILITY GUIDELINES (lbs/ac)

Sample Number	Crop	Yield Goal	Lime Tons/Acre	N	P2O5	K2O	Mg	Ca	S	Zn	Mn	Fe	Cu	B
17	Corn	200 bu	0.0	250	40	135	10	0		3.5	0			
17	Soybeans	60 bu	0.0	0	30	65	10	0		1.5	0			
18	Corn	200 bu	0.0	245	45	180	10	0		3.5	0			
18	Soybeans	60 bu	0.0	0	30	110	10	0		1.5	0			
19	Corn	200 bu	0.0	215	40	50	20	0		0.5	0			
19	Soybeans	60 bu	0.0	0	30	60	20	0		0.0	0			
20	Corn	200 bu	0.0	255	95	260	15	0		3.5	0			
20	Soybeans	60 bu	0.0	0	60	180	15	0		1.5	0			

The results of this report relate to the sample submitted and analyzed.

* Crop yield is influenced by a number of factors in addition to soil fertility.

Results Authorized By:

Ian McLachlin, Vice President

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Report Number: C15271-10013
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A & L Canada Laboratories Inc.

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C15271-10013



To: WARRINER AG
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BLENHEIM, ON N0P 1A0
Attn: LYNNE WARRINER

For: HAT TRICK FARMS

Farm: HOME FARM
Field: FIELD 1

Grower Code: HTF0068

Reported Date: Printed Date:2015-09-30

SOIL TEST REPORT

Page:6

Sample Number	Lab Number	Organic Matter	Phosphorus - P ppm		Potassium K ppm	Magnesium Mg ppm	Calcium Ca ppm	Sodium Na ppm	pH		CEC	Percent Base Saturations				
			Bicarb	Bray-P1					pH	Buffer	meq/100g	% K	% Mg	% Ca	% H	% Na
21	56920	2.6	16 L	24 L	116 M	195 M	2500 VH	13 L	7.4		14.5	2.1	11.2	86.5		0.4
22	56921	2.5	24 L	50 M	190 H	130 M	1100 M	13 M	5.8	6.9	8.3	5.9	13.0	66.2	14.3	0.7
23	56922	2.1	24 L	46 M	107 M	95 M	960 M	10 L	6.8	6.9	7.1	3.9	11.2	67.6	16.8	0.6
Sample Number	Sulfur S ppm	Zinc Zn ppm	Manganese Mn ppm	Iron Fe ppm	Copper Cu ppm	Boron B ppm	Soluble Salts ms/cm	Saturation %P	Aluminum Al ppm	Saturation %Al	Nitrate Nitrogen NO3-N ppm	K/Mg Ratio	ENR	Field ID		
21		3.0 M	89 VH					2 VL	552	0.0 G		0.19	38			
22		3.5 M	64 VH					9 L	724	1.1 M		0.45	37			
23		2.9 L	56 VH					9 L	667	0.2 G		0.35	33			

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SOIL FERTILITY GUIDELINES (lbs/ac)

Sample Number	Crop	Yield Goal	Lime Tons/Acre	N	P2O5	K2O	Mg	Ca	S	Zn	Mn	Fe	Cu	B
21	Corn	200 bu	0.0	255	110	215	15	0		4.0	0			
21	Soybeans	60 bu	0.0	0	70	140	15	0		2.0	0			
22	Corn	200 bu	0.0	255	40	50	10	0		2.0	0			
22	Soybeans	60 bu	0.0	0	30	60	10	0		0.0	0			
23	Corn	200 bu	0.0	260	40	180	15	0		3.5	0			
23	Soybeans	60 bu	0.0	0	30	115	15	0		1.5	0			

The results of this report relate to the sample submitted and analyzed.

* Crop yield is influenced by a number of factors in addition to soil fertility.

No guarantee or warranty concerning crop performance is made by A & L.

Results Authorized By:

Ian McLachlin, Vice President

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C15271-10013



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RR#3
BLENHEIM, ON N0P 1A0
Attn: LYNNE WARRINER

For: HAT TRICK FARMS

Farm: HOME FARM
Field: FIELD 1

Grower Code: HTF0068

Reported Date: Printed Date: 2015-09-30

SOIL TEST REPORT

Page:1

Sample Number	Lab Number	Organic Matter	Phosphorus - P ppm Bicarb	Bray-P1	Potassium K ppm	Magnesium Mg ppm	Calcium Ca ppm	Sodium Na ppm	pH	CEC meq/100g	Percent Base Saturations				
									Buffer		% K	% Mg	% Ca	% H	% Na
1	56900	3.7	38 M	70 M	180 H	200 M	2190 H	13 L	7.2	13.8	3.4	12.1	79.5	4.6	0.4
2	56901	2.6	28 M	55 M	132 M	170 M	1890 M	19 L	7.0	13.0	2.6	10.9	72.9	12.9	0.6
3	56902	2.5	28 M	56 M	181 H	125 L	2250 H	14 L	7.0	14.7	3.2	7.1	76.4	13.0	0.4
4	56903	3.2	38 M	81 M	248 VH	170 M	1980 H	13 L	7.2	12.6	5.1	11.3	78.6	4.6	0.4
Sample Number	Sulfur S ppm	Zinc Zn ppm	Manganese Mn ppm	Iron Fe ppm	Copper Cu ppm	Boron B ppm	Soluble Salts ms/cm	Saturation %P	Aluminum Al ppm	Saturation %Al	Nitrate Nitrogen NO3-N ppm	K/Mg Ratio	ENR	Field ID	
1		6.2 H	71 VH					6 M	607	0.1 G		0.28	49		
2		5.6 H	68 VH					12 H	591	0.1 G		0.24	38		
3		3.9 M	55 VH					14 H	529	0.1 G		0.45	37		
4		5.4 H	77 VH					7 M	536	0.1 G		0.45	44		

OE VL = VERY LOW, L = LOW, M = MEDIUM, H = HIGH, VH = VERY HIGH, G = GOOD, MA = MARGINAL, MT = MODERATE PHYTO-TOXIC, T = PHYTO-TOXIC, ST = SEVERE PHYTO-TOXIC

SOIL FERTILITY GUIDELINES (lbs/ac)

Sample Number	Crop	Yield Goal	Lime Tons/Acre	N	P2O5	K2O	Mg	Ca	S	Zn	Mn	Fe	Cu	B
1	Corn	200 bu	0.0	245	40	80	10	0		2.0	0			
1	Soybeans	60 bu	0.0	0	30	60	10	0		0.0	0			
2	Corn	200 bu	0.0	255	40	170	15	0		2.5	0			
2	Soybeans	60 bu	0.0	0	30	100	15	0		0.5	0			
3	Corn	200 bu	0.0	255	40	85	20	0		3.0	0			
3	Soybeans	60 bu	0.0	0	30	60	20	0		1.0	0			
4	Corn	200 bu	0.0	250	40	50	15	0		2.5	0			
4	Soybeans	60 bu	0.0	0	30	60	15	0		0.5	0			

The results of this report relate to the sample submitted and analyzed.

* Crop yield is influenced by a number of factors in addition to soil fertility.

No guarantee or warranty concerning crop performance is made by A & L.

Results Authorized By:

Ian McLachlin, Vice President

Standard R3/R4



SOIL TESTING

Soil testing is the most often used method of trying to predict nutrient deficiencies. It has become a most effective management tool for farm managers, consultants and researchers, and provides information extending from monitoring soil health to assessing fertilizer requirements and evaluating the potential for adverse environmental impacts.

Soil testing can be used to:

- a. identify yield-limiting factors, specifically nutrient shortages in the soil;
- b. indicate the nutrient supply capacity of the soil being tested, and hence, where to start developing fertilizer and lime recommendations;
- c. develop nutrient management plans when combined with production information such as cropping history, soil survey maps or yield maps;
- d. monitor soil fertility and trends over time so that nutrient management programs can be adjusted to meet management goals;
- e. manage risk, by determining where the largest responses to nutrients are likely to occur.

Sampling of soil is usually done before planting of annual crops or before the active growing season of perennial crops. The greatest potential for error in soil testing is in taking the soil sample.

Accurate soil testing procedures rely on representative samples. The collection of representative samples require care and skill. In most conditions, the sample represents more than ten million times the amount of soil sent to the lab. So whether the soil sample is taken to represent a small or large field it is important that multiple samples are taken from over the whole field, bulked together and mixed well to yield a truly representative sample for analysis. If a representative sample is collected, the results of the test can provide a reliable estimate of the nutrient status of the soil. Soil testing laboratories often provide sampling instructions that may include these steps:

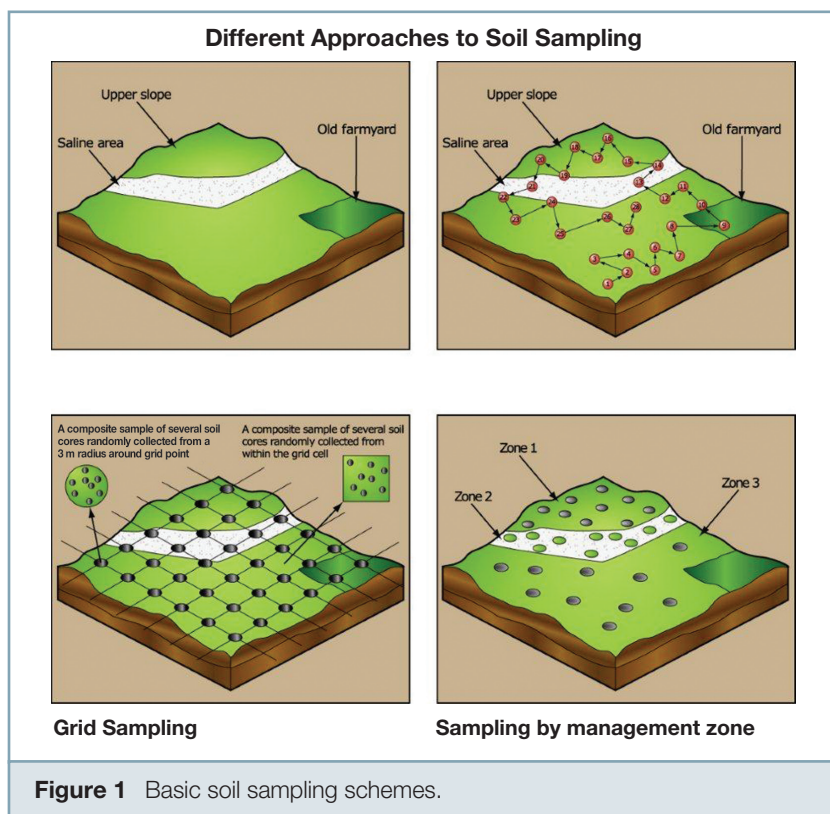
For Field Sampling

- a. A separate soil sample should be taken from field areas that have distinct topography, soil types or observable color, or known past management practices. Thus, a large field may be divided into uniform soil areas or past cropping areas depending on the specific site. Assign a permanent identification number. Record the field numbers. Keep a map of sample areas. If a GPS unit is available for use, the location of spots sampled may be recorded and saved for future reference.
- b. Use a clean plastic bucket, especially for micronutrient tests. Metal buckets may contaminate the sample.
- c. Sample to the depth recommended for the soil test by the laboratory.
- d. Additional subsoil samples may be taken down to the rooting depth of the intended crop if there are potential available nutrients that have leached downward. This is more important for mobile nutrients such as N, S, and Cl⁻, but less important for less mobile nutrients such as P and K, and many of the other micronutrients.
- e. In most cases at least 15 to 20 samples should be taken randomly to make up the composite blended sample from which a subsample is taken for submission to the testing laboratory.
- f. The samples may be taken using one of various sampling tools (e.g. soil core probe, shovel, machete etc.). The composite sample may weigh from one to several kg.
- g. Thoroughly mix all the cores from a sample area from which to obtain a representative subsample for analysis. This step is extremely important. Clods should be broken while mixing is being done. Improper mixing can result in a non-representative sample. If the soil is too wet to mix well, allow for a partial air-drying first.

- h. Several types of containers may be used for sending the sample to the laboratory. Some laboratories provide an inner plastic bag that is placed in a paper box, or a paper bag that has a bonded inner plastic layer adhered to the outer paper layer. If no laboratory container is available, two new and clean, heavy duty plastic bags can be used. The inner plastic bag contains the sample while the outer contains the information sheet and sample identification.
- i. To prevent contamination of some micronutrients from your hands wear latex gloves while handling the soil sample.
- j. Using hands, scoop the mixed soil from the bucket and swing hands back and forth over the open sample container, dropping soil so that a portion falls into the container and the remainder to each side of the container. Repeat this procedure assuring that a portion of the whole sample in the bucket contributes to the subsample, and that the sample container has about 0.5 kg in it.
- k. It is advised to keep the soil samples in a cooler or fridge until shipped to the laboratory. If it will take more than a few days from the time of sampling until shipping to the laboratory the soil samples may be air-dried in flat pans where the soil sample can be spread out uniformly. Let the laboratory know if the sample has been air-dried.
- l. Fill out the information sheet completely.
- m. Most fields should be sampled every 2 to 3 years... more often if desired.
- n. Keep a record of results.

For Diagnosing Poor Growth or Problem Areas

- a. Collect separate samples using the techniques described above, from good and poor areas.
- b. Take both surface and subsoil samples.
- c. Include description of the observed poor growth symptoms and send the description with the samples.
- d. If a digital camera is available an image may be taken of crop plants from both the poor growth and good growth areas, and used to help diagnose the problem.



Source: 4R Plant Nutrition Manual: A Manual for Improving the Management of Plant Nutrition, International Plant Nutrition Institute (IPNI) ipni.net/4r

Standard R5



REPORT NO. C17319-80002
ACCOUNT NO. 06215

A&L CANADA LABORATORIES INC.

2136 Jetstream Rd, London, ON, N5V 3P5 Tel (519) 457-2575 Fax: (519) 457-2664



TO: WARRINER AG
18800 LAGOON RD
RR#3
BLENHEIM, ON N0P 1A0
ATTN: LYNNE WARRINER

FOR: HAT TRICK FARMS

BENS PIG BARN

PAGE: 1 / 1

MANURE ANALYSIS

LAB NUMBER: 3198004
SAMPLE ID: 1

DATE RECEIVED: 2017-11-15
DATE REPORTED:
DATE PRINTED: 2017-11-21

PARAMETER	ANALYSIS RESULT	POUNDS PER 1,000 GAL	ESTIMATED AVAILABILITY PER 1,000 GAL
Dry Matter	1 %		
Nitrogen (Total)	0.161 %	16.1	
NH4-N	1351 ppm	13.5	
Phosphorus (Total)	0.0093 %		
Phosphate (P as P2O5) **	0.0214 %	2.1	0.8
Potassium (Total)	0.2396 %		
Potash (K as K2O) **	0.2875 %	28.8	25.9
Organic Matter *	0.4 %		
Carbon:Nitrogen Ratio (C:N)	1 : 1		
Calcium	0.0204 %	2.0	
Magnesium	0.0035 %	0.4	

* All Parameters are reported on an as is basis.

**Available nutrients are reported as total available. Only a portion of these nutrients will be available the year of application.

For information on nitrogen availability, see reverse side of page.

More information available: http://www.alcanada.com/files/Manure_Analysis.pdf



C17319-80002

A&L Canada is a laboratory accredited by Standards Council of Canada / CAEAL and OMAF.



TO: WARRINER AG
18800 LAGOON RD
RR#3
BLENHEIM, ON N0P 1A0
ATTN: LYNNE WARRINER

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BENS PIG BARN

PAGE: 1 / 1

MANURE ANALYSIS

LAB NUMBER: 3198004
SAMPLE ID: 1

DATE RECEIVED: 2017-11-15
DATE REPORTED:
DATE PRINTED: 2017-11-21

PARAMETER	ANALYSIS RESULT	POUNDS PER 1,000 GAL	ESTIMATED AVAILABILITY PER 1,000 GAL
Dry Matter	1 %		
Nitrogen (Total)	0.161 %	16.1	Available nutrients
NH4-N	1351 ppm	13.5	
Phosphorus (Total)	0.0093 %		
Phosphate (P as P2O5) **	0.0214 %	2.1	0.8
Potassium (Total)	0.2396 %		
Potash (K as K2O) **	0.2875 %	28.8	25.9
Organic Matter *	0.4 %		
Carbon:Nitrogen Ratio (C:N)	1 : 1		
Calcium	0.0204 %	2.0	
Magnesium	0.0035 %	0.4	

* All Parameters are reported on an as is basis.

**Available nutrients are reported as total available. Only a portion of these nutrients will be available the year of application.

For information on nitrogen availability, see reverse side of page.

More information available: http://www.alcanada.com/files/Manure_Analysis.pdf



C17319-80002

Standard R9

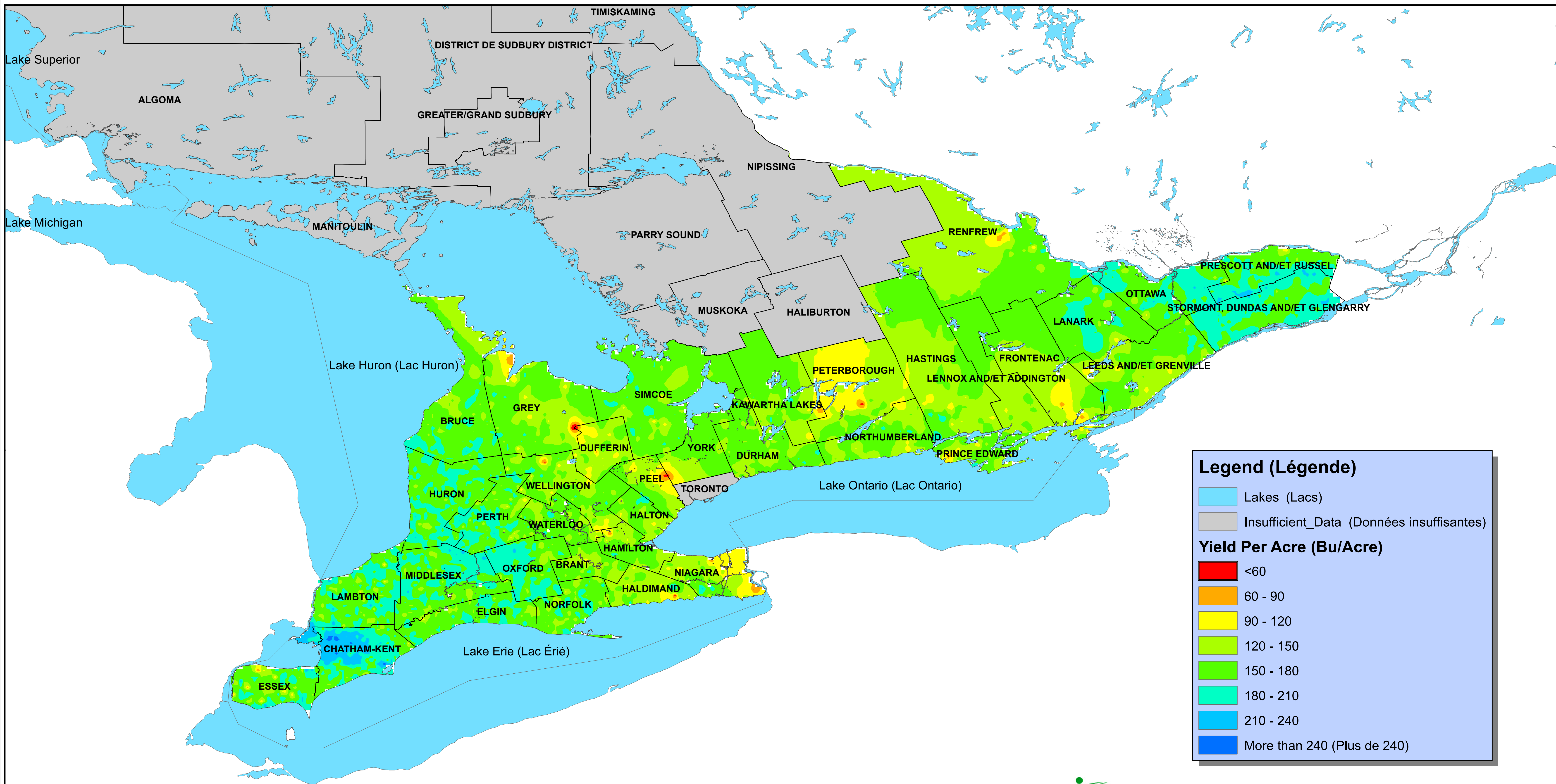


Corn:

Harvested yields (2015)

Maïs :

Rendement des récoltes (2015)



Legend (Légende)

Lakes (Lacs)

Insufficient_Data (Données insuffisantes)

Yield Per Acre (Bu/Acre)

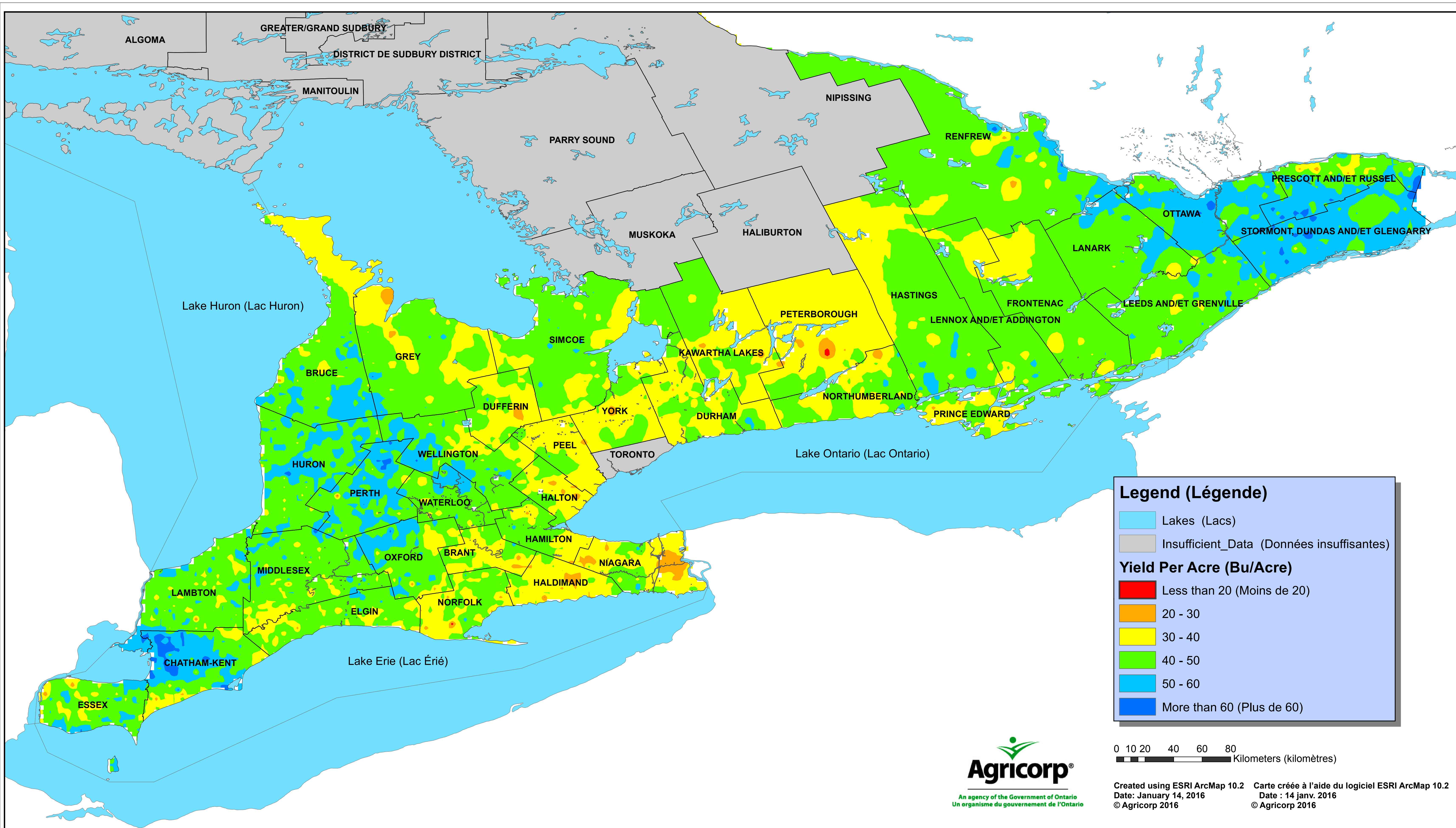
<60
60 - 90
90 - 120
120 - 150
150 - 180
180 - 210
210 - 240
More than 240 (Plus de 240)

Soybeans:

Harvested yields (2015)

Soya :

Rendement des récoltes (2015)

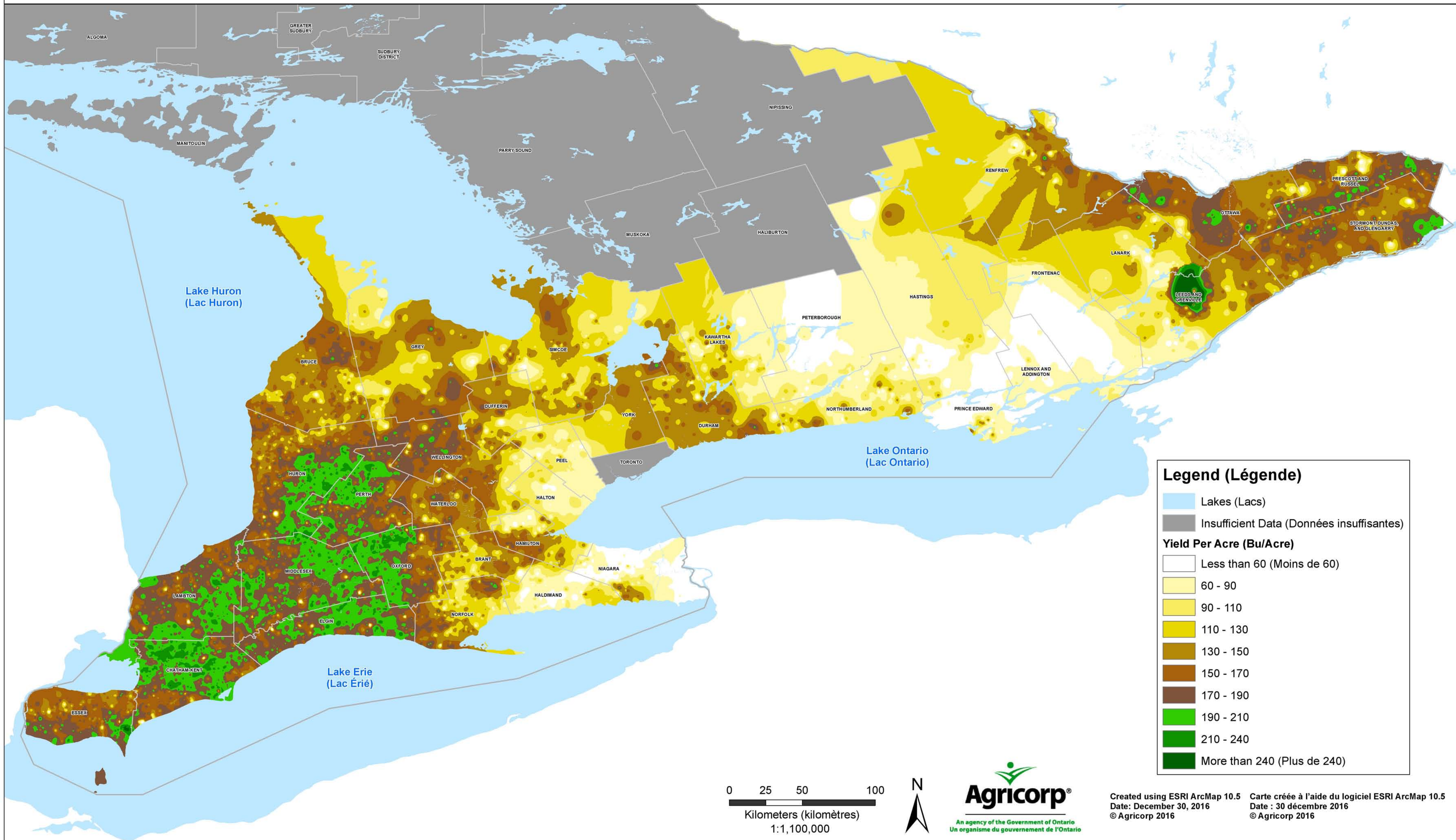


Corn:

Harvested yields (2016)

Maïs:

Rendement des récoltes (2016)

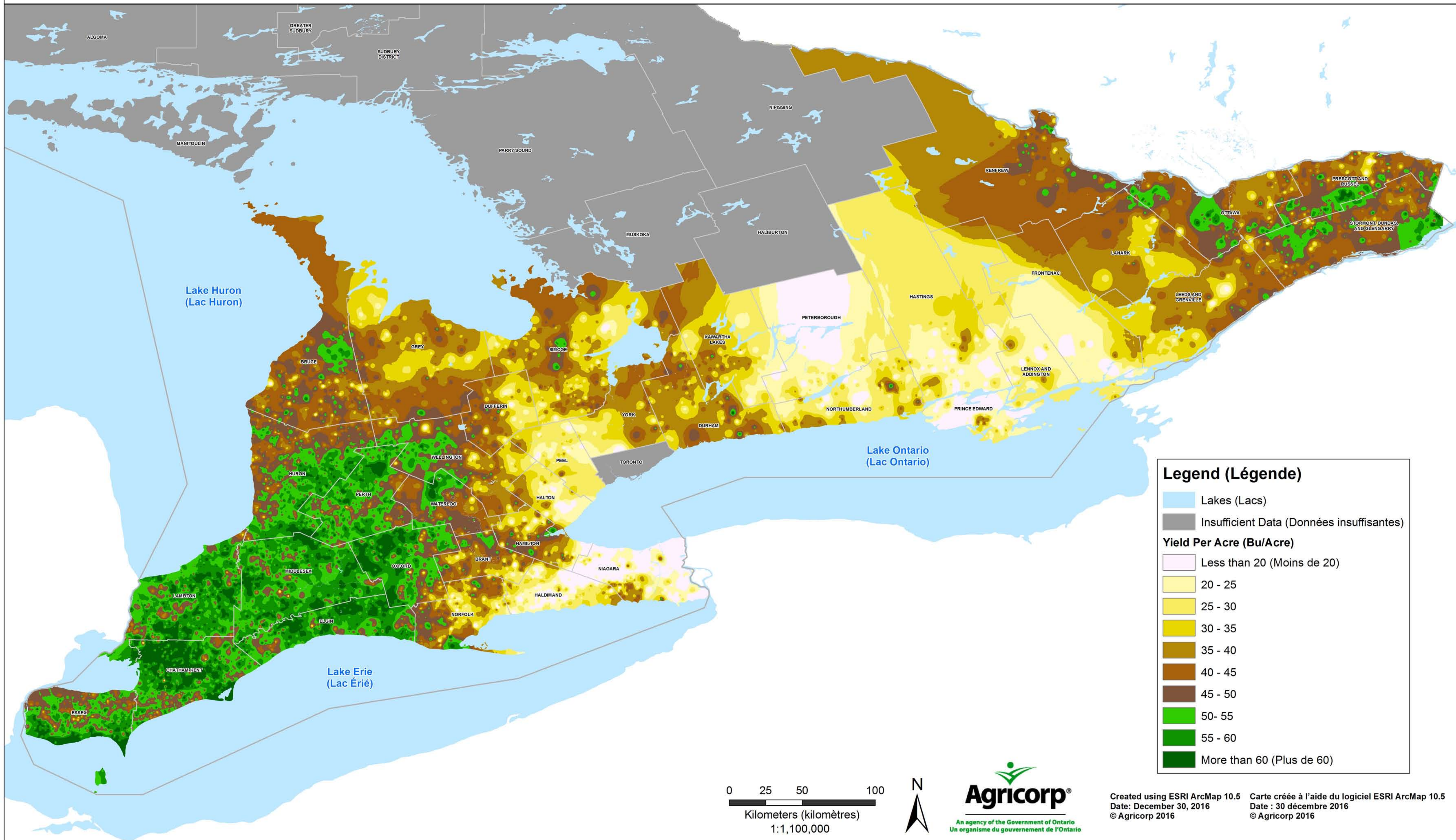


Soybeans:

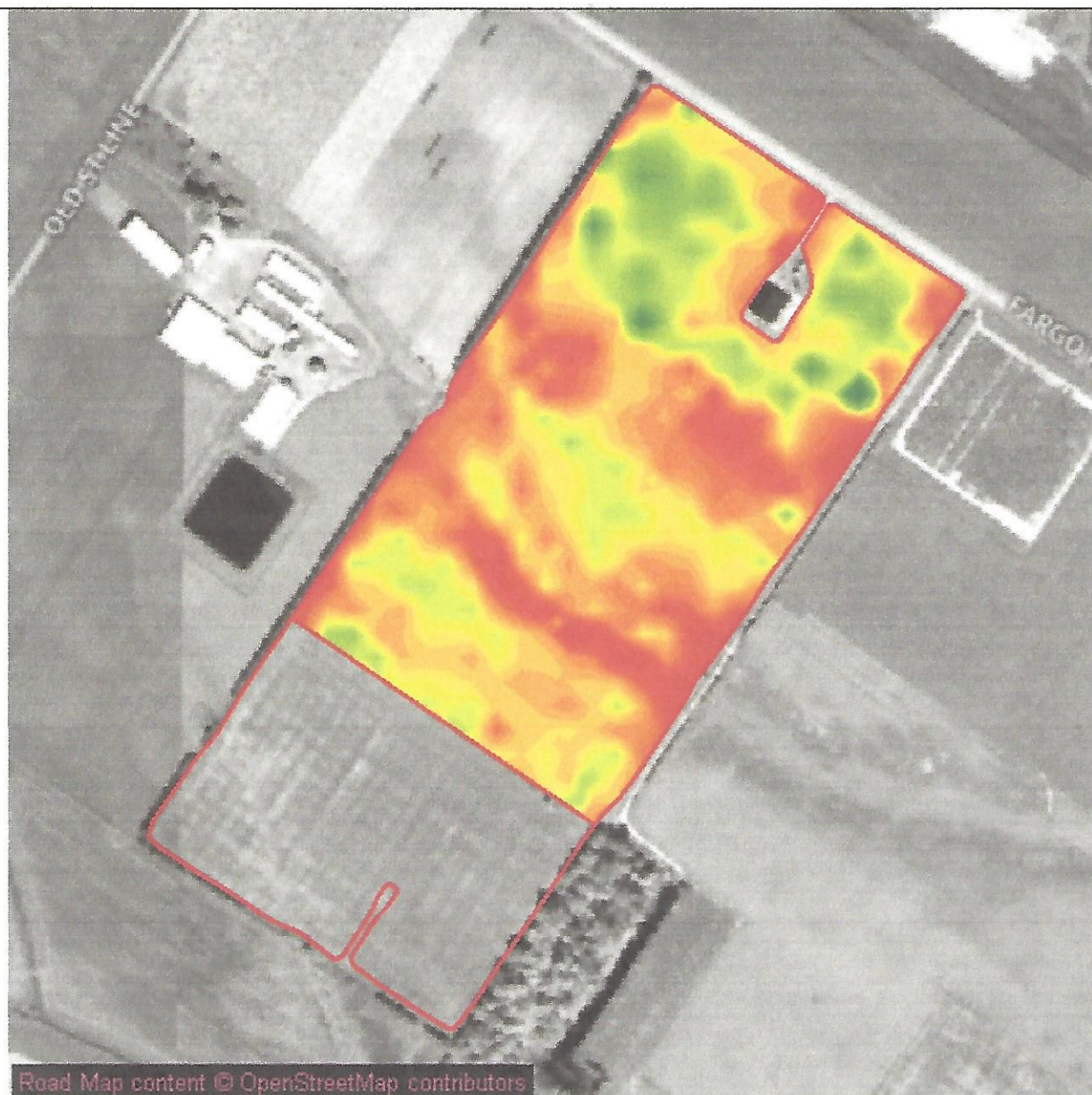
Harvested yields (2016)

Soya:

Rendement des récoltes (2016)



Yield Surface



Road Map content © OpenStreetMap contributors

Grower: Hat Trick Farms
Inc
Farm: Home Farm
Field: Field 2
Area: 33.93 ac

Season: 2015
Min: 110.00 bu/ac
Avg: 236.46 bu/ac
Max: 444.48 bu/ac

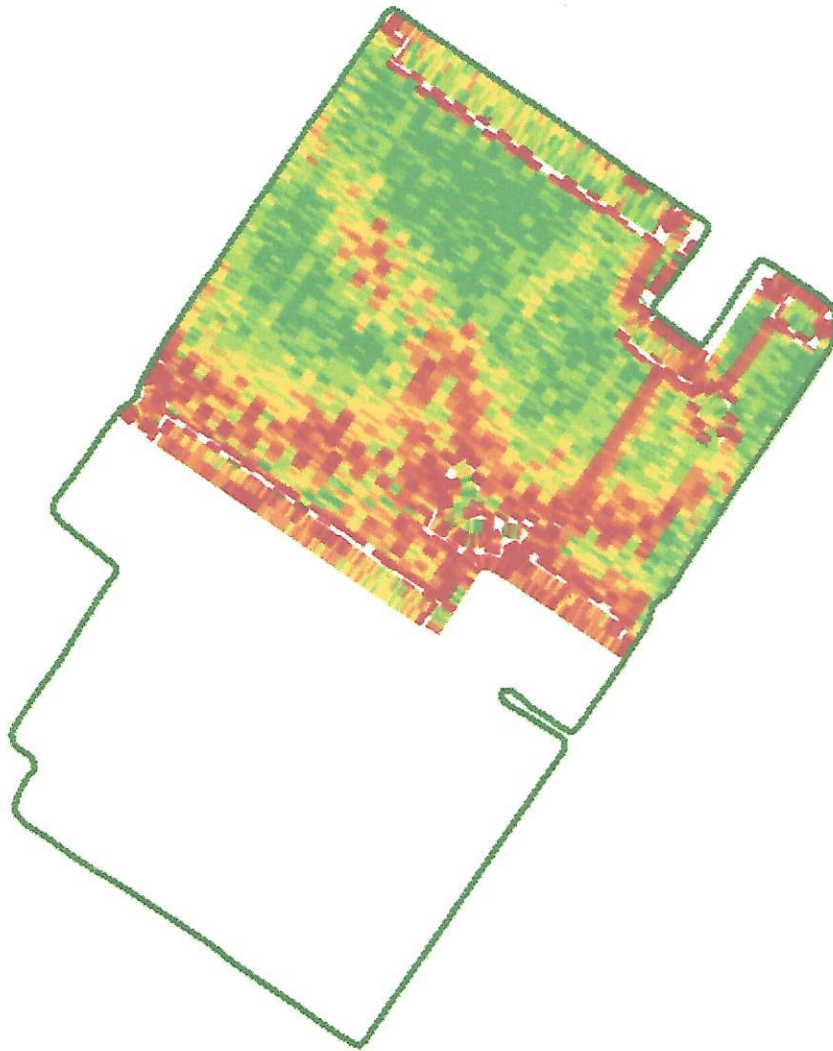
Order Id: 495787
Order Task Id: 13293457
Crop: Corn



One in = 418 feet
0 189 378 567 756 945

—	Management Zone Boundary
—	Field Boundary
	Yield Surface bu/ac
■	110 - 186 (3.8 ac) (8.0 %)
■	188 - 220 (7.2 ac) (15.1 %)
■	220 - 245 (8.4 ac) (17.8 %)
■	246 - 268 (8.4 ac) (17.8 %)
■	269 - 299 (5.0 ac) (10.6 %)
■	305 - 347 (0.9 ac) (2.0 %)
■	353 - 444 (0.3 ac) (0.5 %)

Soybeans Yield



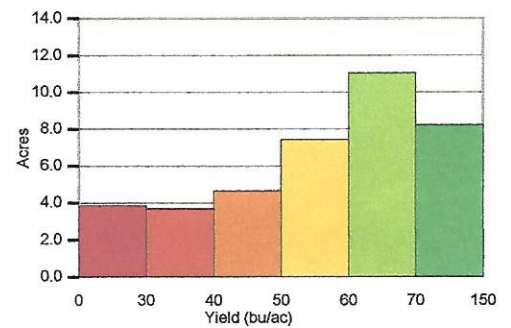
Grower: Hat Trick Farms Inc
Farm: Home Farm
Field: Field 75
Date: 9/25/2017
Area: 68.79ac
Lat: 42.30681°N
Lon: 081.97625°W

Crop Season: 2017
Harvest Date(s): 9/22/2017

Harvested Area: 38.95 ac
Min: 0.33 bu/ac
Max: 149.98 bu/ac
Avg: 55.53 bu/ac
Total Product: 2,162.59 bu



One in = 412 feet
0 143 287 430 574 717



Kent County - Average Yields Summary

Based on Agricorp data from 2005-2009, compiled October 2010.

Crop	Yield (bu/ac)	Geotownship*	Yield (bu/ac)
CORN	175	CAMDEN	173
		CHATHAM	189
		DOVER	185
		HARWICH	177
		HOWARD	174
		ORFORD	160
		RALEIGH	168
		ROMNEY	158
		TILBURY EAST	166
		ZONE	154
SOYBEANS	45	CAMDEN	44
		CHATHAM	49
		DOVER	50
		HARWICH	46
		HOWARD	46
		ORFORD	42
		RALEIGH	44
		ROMNEY	42
		TILBURY EAST	42
		ZONE	39
SPRING WHEAT	No data	-	No data
WINTER WHEAT	83	CAMDEN	82
		CHATHAM	87
		DOVER	93
		HARWICH	82
		HOWARD	81
		ORFORD	75
		RALEIGH	81
		ROMNEY	76
		TILBURY EAST	79
		ZONE	66

Standard A1



JOB REPORT DETAILS

OPERATOR

ADDRESS

LICENSE #

CUSTOMER

ADDRESS

CUSTOMER #

GROWER

FARM

FIELD

SECTION

COUNTY

TOWNSHIP

CROP

TOTAL AREA

APPLICATION TYPE Broadcast

SOIL CONDITION

MOISTURE

BOUNDARY AREA

WEATHER

OBSERVATION TIME 8:51 am

TEMPERATURE 15 C

WIND SPEED 5 km/h

WIND DIRECTION W

HUMIDITY 20%

JOB DETAILS

PRODUCT NAME	MAP
APPLIED AREA	22.80 ac
TOTAL VOLUME	4,175,250.00
VOLUME UOM	
TARGET RATE MIN	0
TARGET RATE MAX	80
RATE UOM	
TIP SIZE	
AVERAGE SPEED	14.52 mph

NOTES



SCALE

0 243 487 731 975 1218



LEGEND

MAP

LOW
OK
HIGH

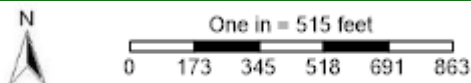
INGREDIENTS

NAME	MANUFACTURER EPA #	TARGET PESTS	NH3TANK #	MIX RATIO
------	--------------------	--------------	-----------	-----------

MAP for 2016 Corn 220 bu Starter Credit 39 P205 - Min 80 - front — Recommendation



Date: 4/24/2016
Field: Field 75
Farm: Home Farm
Grower: Hat Trick Farms Inc
Area: 68.79 ac
Lat: 42.30681°N
Lon: 081.97625°W



11-52-0 MAP
■ 80

(21.43 ac)

Min Rate: 80.00 lb/ac
Avg Rate: 80.00 lb/ac
Max Rate: 80.00 lb/ac
Total Product: 1,714.66 lb
Applied Acres: 21.43

APPLICATION REPORT

JOB REPORT DETAILS

OPERATOR

ADDRESS

LICENSE #

CUSTOMER

ADDRESS

CUSTOMER #

GROWER

FARM

FIELD

SECTION

COUNTY

TOWNSHIP

CROP

TOTAL AREA

APPLICATION TYPE Broadcast

SOIL CONDITION

MOISTURE

BOUNDARY AREA

WEATHER

OBSERVATION TIME 8:51 am

TEMPERATURE 15 C

WIND SPEED 5 km/h

WIND DIRECTION W

HUMIDITY 20%

JOB DETAILS

PRODUCT NAME	POTASH
APPLIED AREA	43.50 ac
TOTAL VOLUME	11,831,343.00
VOLUME UOM	
TARGET RATE MIN	80
TARGET RATE MAX	300
RATE UOM	
TIP SIZE	
AVERAGE SPEED	14.52 mph

NOTES



SCALE

0 243 487 731 975 1218



LEGEND

POTASH

LOW
OK
HIGH

INGREDIENTS

NAME	MANUFACTURER EPA #	TARGET PESTS	NH3TANK #	MIX RATIO
------	--------------------	--------------	-----------	-----------

Potash for 2016 Corn 220 bu Starter Credit 18 lbs K2O - Min Rate 80 - front — Recommendation



Date: 4/24/2016

Field: Field 75

Farm: Home Farm

Grower: Hat Trick Farms Inc

Area: 68.79 ac

Lat: 42.30681°N

Lon: 081.97625°W

Min Rate: 80.00 lb/ac

Avg Rate: 227.19 lb/ac

Max Rate: 300.00 lb/ac

Total Product: 9,448.08 lb

Applied Acres: 41.59



One in = 515 feet
0 173 345 518 691 863

0-0-60

80	(6.68 ac)
110 - 120	(3.95 ac)
180	(2.70 ac)
195 - 210	(3.59 ac)
280 - 300	(24.67 ac)

Standard A3



Tue
Jan 10

Mainly sunny



-1 °C

Wed
Jan 11

Sunny



-3 °C

Thu
Jan 12

Sunny



-1 °C

Fri
Jan 13

A mix of sun
and clouds



1 °C

Sat
Jan 14

Mixed
precipitation



3 °C

Sun
Jan 15

Rain



4 °C

Standard A5



JOB REPORT DETAILS

OPERATOR

ADDRESS

LICENSE #

CUSTOMER

ADDRESS

CUSTOMER #

GROWER

FARM

FIELD

SECTION

COUNTY

TOWNSHIP

CROP

TOTAL AREA

APPLICATION TYPE Broadcast

SOIL CONDITION

MOISTURE

BOUNDARY AREA

WEATHER

OBSERVATION TIME 8:51 am

TEMPERATURE 15 C

WIND SPEED 5 km/h

WIND DIRECTION W

HUMIDITY 20%

JOB DETAILS

PRODUCT NAME	MAP
APPLIED AREA	22.80 ac
TOTAL VOLUME	4,175,250.00
VOLUME UOM	
TARGET RATE MIN	0
TARGET RATE MAX	80
RATE UOM	
TIP SIZE	
AVERAGE SPEED	14.52 mph

NOTES



SCALE

0 243 487 731 975 1218



LEGEND

MAP

LOW
OK
HIGH

INGREDIENTS

NAME	MANUFACTURER EPA #	TARGET PESTS	NH3TANK #	MIX RATIO
------	--------------------	--------------	-----------	-----------

MAP for 2016 Corn 220 bu Starter Credit 39 P205 - Min 80 - front — Recommendation



Date: 4/24/2016
Field: Field 75
Farm: Home Farm
Grower: Hat Trick Farms Inc
Area: 68.79 ac
Lat: 42.30681°N
Lon: 081.97625°W



One in = 515 feet
0 173 345 518 691 863

11-52-0 MAP
■ 80

(21.43 ac)

Min Rate: 80.00 lb/ac
Avg Rate: 80.00 lb/ac
Max Rate: 80.00 lb/ac
Total Product: 1,714.66 lb
Applied Acres: 21.43

APPLICATION REPORT

JOB REPORT DETAILS

OPERATOR

ADDRESS

LICENSE #

CUSTOMER

ADDRESS

CUSTOMER #

GROWER

FARM

FIELD

SECTION

COUNTY

TOWNSHIP

CROP

TOTAL AREA

APPLICATION TYPE Broadcast

SOIL CONDITION

MOISTURE

BOUNDARY AREA

WEATHER

OBSERVATION TIME 8:51 am

TEMPERATURE 15 C

WIND SPEED 5 km/h

WIND DIRECTION W

HUMIDITY 20%

JOB DETAILS

PRODUCT NAME	POTASH
APPLIED AREA	43.50 ac
TOTAL VOLUME	11,831,343.00
VOLUME UOM	
TARGET RATE MIN	80
TARGET RATE MAX	300
RATE UOM	
TIP SIZE	
AVERAGE SPEED	14.52 mph

NOTES



SCALE

0 243 487 731 975 1218



LEGEND

POTASH

LOW
OK
HIGH

INGREDIENTS

NAME	MANUFACTURER EPA #	TARGET PESTS	NH3TANK #	MIX RATIO
------	--------------------	--------------	-----------	-----------

Potash for 2016 Corn 220 bu Starter Credit 18 lbs K2O - Min Rate 80 - front — Recommendation



Date: 4/24/2016
Field: Field 75
Farm: Home Farm
Grower: Hat Trick Farms Inc
Area: 68.79 ac
Lat: 42.30681°N
Lon: 081.97625°W

Min Rate: 80.00 lb/ac
Avg Rate: 227.19 lb/ac
Max Rate: 300.00 lb/ac
Total Product: 9,448.08 lb
Applied Acres: 41.59



One in = 515 feet
0 173 345 518 691 863

0-0-60		
80	(6.68 ac)	
110 - 120	(3.95 ac)	
180	(2.70 ac)	
195 - 210	(3.59 ac)	
280 - 300	(24.67 ac)	

Standard A6



RECORD FORM #5 (Page 1): Solid Manure Spreader Calibration and Maintenance for _____ equipment
(Year: 20____)¹ (Use Poultry Calibration Guide on following pages)

Calibration Log *Date:* _____ *Calibration Completed by:* _____

Tractor Gear/RPM	Spreader Setting	Spreader Capacity is Unknown:	Spreader Capacity is Known:	Calculated Application Rate (ton/ac)
/		Area of plastic sheet: _____ ft ² Net Manure Weight on: Sheet 1: _____ lbs Sheet 2: _____ lbs Sheet 3: _____ lbs	Net Manure Weight on Spreader: _____ tons Width of Spread Pattern: _____ ft Travel Distance to Empty Spreader: _____ ft	
/		Area of plastic sheet: _____ ft ² Net Manure Weight on: Sheet 1: _____ lbs Sheet 2: _____ lbs Sheet 3: _____ lbs	Net Manure Weight on Spreader: _____ tons Width of Spread Pattern: _____ ft Travel Distance to Empty Spreader: _____ ft	
/		Area of plastic sheet: _____ ft ² Net Manure Weight on: Sheet 1: _____ lbs Sheet 2: _____ lbs Sheet 3: _____ lbs	Net Manure Weight on Spreader: _____ tons Width of Spread Pattern: _____ ft Travel Distance to Empty Spreader: _____ ft	

Inspection and Maintenance Log

Inspection Date	Inspected by (initials)	Item Inspected	Is the equipment functioning properly?		Maintenance		
			Yes	No	Date	Action	Initials

¹ Adapted from Koelsch, R. and J. Benning, 2006

Standard A7



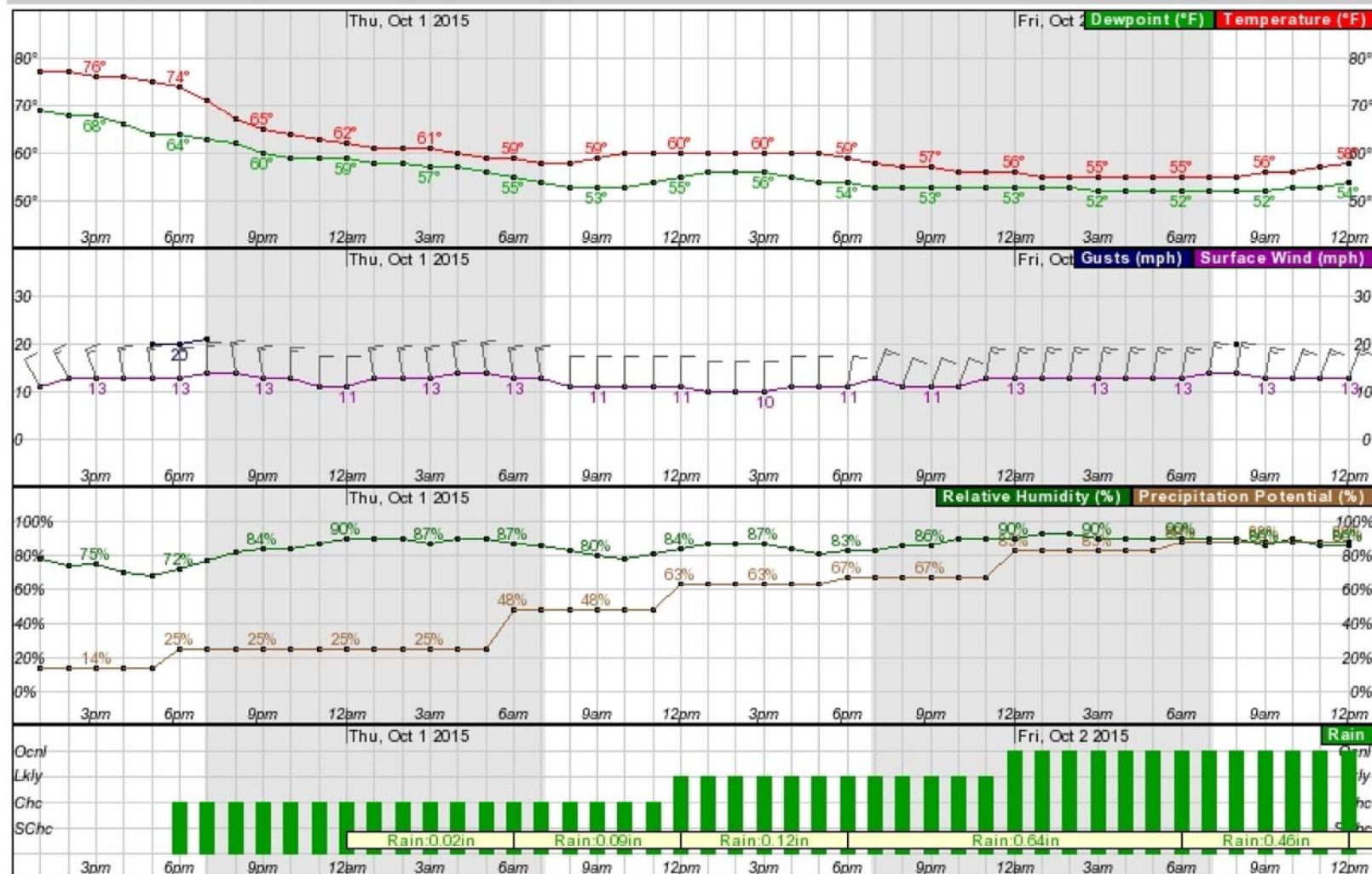
Weather Elements	Weather/Precipitation	Fire Weather
☒ Temperature (°F) ☒ Dewpoint (°F) ☐ Heat Index (°F)	☒ Rain ☐ Thunder ☐ Fog	☐ Mixing Height x100ft ▾ ☐ Haines Index ☐ Lightning Activity Level ☐ Trans. Wind mph ▾ ☐ Vent Rate (x1000 mph-ft)
☒ Surface Wind mph ▾ ☐ Sky Cover (%) ☒ Precipitation Potential (%) ☒ Relative Humidity (%)		

48-Hour Period Starting: 1pm Wed, Sep 30 2015 ▾

Submit

Back 2 Days

Forward 2 Days



Thursday, October 1 at 12pm

Temperature: 60 °F Dewpoint: 55 °F Surface Wind: N 11mph

Precipitation Potential (%): 63% Relative Humidity (%): 84%

Rain: Likely (60%-70%)

Standard A8



APPLICATION
REPORT

JOB REPORT DETAILS

OPERATOR

ADDRESS

LICENSE #

CUSTOMER

ADDRESS

CUSTOMER #

GROWER

FARM

FIELD

SECTION

COUNTY

TOWNSHIP

CROP

TOTAL AREA

APPLICATION TYPE Broadcast

SOIL CONDITION

MOISTURE

BOUNDARY AREA

WEATHER

OBSERVATION TIME 8:51 am

TEMPERATURE 15 C

WIND SPEED 5 km/h

WIND DIRECTION W

HUMIDITY 20%

JOB DETAILS

PRODUCT NAME	POTASH
APPLIED AREA	43.50 ac
TOTAL VOLUME	11,831,343.00
VOLUME UOM	
TARGET RATE MIN	80
TARGET RATE MAX	300
RATE UOM	
TIP SIZE	
AVERAGE SPEED	14.52 mph

NOTES



SCALE

0 243 487 731 975 1218



LEGEND

POTASH

LOW
OK
HIGH

INGREDIENTS

NAME	MANUFACTURER EPA #	TARGET PESTS	NH3TANK #	MIX RATIO
------	--------------------	--------------	-----------	-----------

Potash for 2016 Corn 220 bu Starter Credit 18 lbs K2O - Min Rate 80 - front — Recommendation



Date: 4/24/2016

Field: Field 75

Farm: Home Farm

Grower: Hat Trick Farms Inc

Area: 68.79 ac

Lat: 42.30681°N

Lon: 081.97625°W

Min Rate: 80.00 lb/ac

Avg Rate: 227.19 lb/ac

Max Rate: 300.00 lb/ac

Total Product: 9,448.08 lb

Applied Acres: 41.59

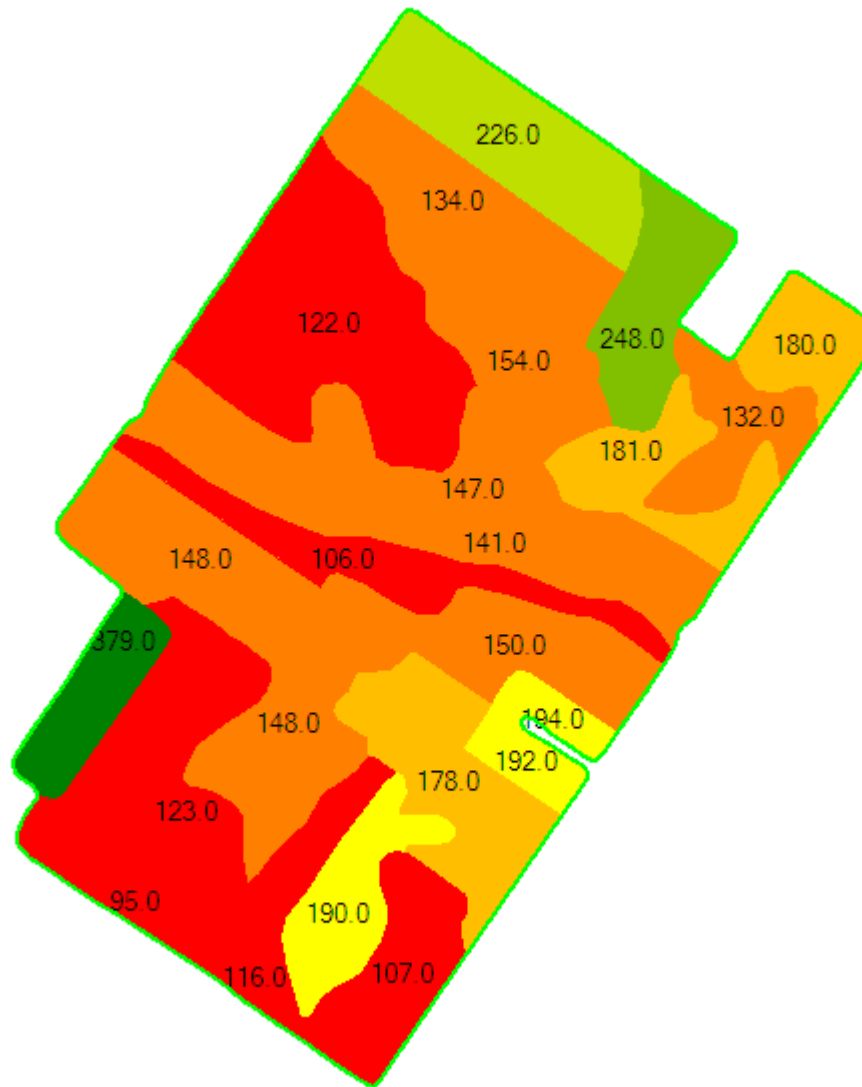


One in = 515 feet
0 173 345 518 691 863

0-0-60

80	(6.68 ac)
110 - 120	(3.95 ac)
180	(2.70 ac)
195 - 210	(3.59 ac)
280 - 300	(24.67 ac)

K



Grower: Hat Trick Farms
Inc
Farm: Home Farm
Field: Field 1
Area: 68.79 ac

Min: 95.00
Avg: 164.83
Max: 379.00



One in = 474 feet
0 214 429 643 857 1072

Field Boundary	
K	
95 - 123 (21.2 ac) (30.8 %)	
132 - 154 (27.5 ac) (39.9 %)	
178 - 181 (7.9 ac) (11.5 %)	
190 - 194 (3.7 ac) (5.4 %)	
226 (4.0 ac) (5.9 %)	
248 (2.6 ac) (3.8 %)	
379 (1.9 ac) (2.7 %)	

Standard A9



APPLICATION REPORT

Time of Application

Title: HAT TRICK
File Name: HAT TRICK.jdp.zip
Start Session: 2016-04-25 08:51:05
End Session: 2016-04-25 10:11:07

JOB REPORT DETAILS

OPERATOR

ADDRESS

LICENSE #

CUSTOMER

ADDRESS

CUSTOMER #

GROWER

FARM

FIELD

SECTION

COUNTY

TOWNSHIP

CROP

Method of Application

TOTAL AREA

APPLICATION TYPE Broadcast

SOIL CONDITION

MOISTURE

BOUNDARY AREA

WEATHER

Weather Conditions

OBSERVATION TIME 8:51 am

TEMPERATURE 15 C

WIND SPEED 5 km/h

WIND DIRECTION W

HUMIDITY 20%

Nutrient Source

JOB DETAILS

PRODUCT NAME MAP

APPLIED AREA 22.80 ac

TOTAL VOLUME 4,175,250.00

VOLUME UOM

TARGET RATE MIN 0

TARGET RATE MAX 80

Rate

RATE UOM

TIP SIZE

AVERAGE SPEED 14.52 mph

NOTES



SCALE

0 243 487 731 975 1218



LEGEND

MAP

LOW
OK
HIGH

INGREDIENTS

NAME	MANUFACTURER EPA #	TARGET PESTS	NH3TANK #	MIX RATIO
------	--------------------	--------------	-----------	-----------

JOB REPORT DETAILS

OPERATOR

ADDRESS

LICENSE #

CUSTOMER

ADDRESS

CUSTOMER #

GROWER

FARM

FIELD

SECTION

COUNTY

TOWNSHIP

CROP

TOTAL AREA

APPLICATION TYPE Broadcast

SOIL CONDITION

MOISTURE

BOUNDARY AREA

WEATHER

OBSERVATION TIME 8:51 am

TEMPERATURE 15 C

WIND SPEED 5 km/h

WIND DIRECTION W

HUMIDITY 20%

JOB DETAILS

PRODUCT NAME	MAP
APPLIED AREA	22.80 ac
TOTAL VOLUME	4,175,250.00
VOLUME UOM	
TARGET RATE MIN	0
TARGET RATE MAX	80
RATE UOM	
TIP SIZE	
AVERAGE SPEED	14.52 mph

NOTES



SCALE

0 243 487 731 975 1218



LEGEND

MAP

LOW
OK
HIGH

INGREDIENTS

NAME	MANUFACTURER EPA #	TARGET PESTS	NH3TANK #	MIX RATIO
------	--------------------	--------------	-----------	-----------

APPLICATION
REPORT

JOB REPORT DETAILS

OPERATOR

ADDRESS

LICENSE #

CUSTOMER

ADDRESS

CUSTOMER #

GROWER

FARM

FIELD

SECTION

COUNTY

TOWNSHIP

CROP

TOTAL AREA

APPLICATION TYPE Broadcast

SOIL CONDITION

MOISTURE

BOUNDARY AREA

WEATHER

OBSERVATION TIME 8:51 am

TEMPERATURE 15 C

WIND SPEED 5 km/h

WIND DIRECTION W

HUMIDITY 20%

JOB DETAILS

PRODUCT NAME	POTASH
APPLIED AREA	43.50 ac
TOTAL VOLUME	11,831,343.00
VOLUME UOM	
TARGET RATE MIN	80
TARGET RATE MAX	300
RATE UOM	
TIP SIZE	
AVERAGE SPEED	14.52 mph

NOTES



SCALE

0 243 487 731 975 1218



LEGEND

POTASH

LOW
OK
HIGH

INGREDIENTS

NAME	MANUFACTURER EPA #	TARGET PESTS	NH3TANK #	MIX RATIO
------	--------------------	--------------	-----------	-----------

Standard D2



JOB REPORT DETAILS

OPERATOR

ADDRESS

LICENSE #

CUSTOMER

ADDRESS

CUSTOMER #

GROWER

FARM

FIELD

SECTION

COUNTY

TOWNSHIP

CROP

TOTAL AREA

APPLICATION TYPE Broadcast

SOIL CONDITION

MOISTURE

BOUNDARY AREA

WEATHER

OBSERVATION TIME 8:51 am

TEMPERATURE 15 C

WIND SPEED 5 km/h

WIND DIRECTION W

HUMIDITY 20%

JOB DETAILS

PRODUCT NAME	MAP
APPLIED AREA	22.80 ac
TOTAL VOLUME	4,175,250.00
VOLUME UOM	
TARGET RATE MIN	0
TARGET RATE MAX	80
RATE UOM	
TIP SIZE	
AVERAGE SPEED	14.52 mph

NOTES



SCALE

0 243 487 731 975 1218



LEGEND

MAP

LOW
OK
HIGH

INGREDIENTS

NAME	MANUFACTURER EPA #	TARGET PESTS	NH3TANK #	MIX RATIO
------	--------------------	--------------	-----------	-----------

MAP for 2016 Corn 220 bu Starter Credit 39 P205 - Min 80 - front — Recommendation



Date: 4/24/2016
Field: Field 75
Farm: Home Farm
Grower: Hat Trick Farms Inc
Area: 68.79 ac
Lat: 42.30681°N
Lon: 081.97625°W



One in = 515 feet
0 173 345 518 691 863

11-52-0 MAP
■ 80

(21.43 ac)

Min Rate: 80.00 lb/ac
Avg Rate: 80.00 lb/ac
Max Rate: 80.00 lb/ac
Total Product: 1,714.66 lb
Applied Acres: 21.43

APPLICATION
REPORT

JOB REPORT DETAILS

OPERATOR

ADDRESS

LICENSE #

CUSTOMER

ADDRESS

CUSTOMER #

GROWER

FARM

FIELD

SECTION

COUNTY

TOWNSHIP

CROP

TOTAL AREA

APPLICATION TYPE Broadcast

SOIL CONDITION

MOISTURE

BOUNDARY AREA

WEATHER

OBSERVATION TIME 8:51 am

TEMPERATURE 15 C

WIND SPEED 5 km/h

WIND DIRECTION W

HUMIDITY 20%

JOB DETAILS

PRODUCT NAME	POTASH
APPLIED AREA	43.50 ac
TOTAL VOLUME	11,831,343.00
VOLUME UOM	
TARGET RATE MIN	80
TARGET RATE MAX	300
RATE UOM	
TIP SIZE	
AVERAGE SPEED	14.52 mph

NOTES



SCALE

0 243 487 731 975 1218



LEGEND

POTASH

LOW
OK
HIGH

INGREDIENTS

NAME	MANUFACTURER EPA #	TARGET PESTS	NH3TANK #	MIX RATIO
------	--------------------	--------------	-----------	-----------

Potash for 2016 Corn 220 bu Starter Credit 18 lbs K2O - Min Rate 80 - front — Recommendation



Date: 4/24/2016

Field: Field 75

Farm: Home Farm

Grower: Hat Trick Farms Inc

Area: 68.79 ac

Lat: 42.30681°N

Lon: 081.97625°W

Min Rate: 80.00 lb/ac

Avg Rate: 227.19 lb/ac

Max Rate: 300.00 lb/ac

Total Product: 9,448.08 lb

Applied Acres: 41.59



One in = 515 feet
0 173 345 518 691 863

0-0-60

80	(6.68 ac)
110 - 120	(3.95 ac)
180	(2.70 ac)
195 - 210	(3.59 ac)
280 - 300	(24.67 ac)

Standard D4



Regulatory setbacks in O. Reg. 267/03 made under the Nutrient Management Act (NMA; 2002) that apply to commercial fertilizer include:

- Setbacks from wells
 - i. 46. (1) No person shall apply nutrients to land closer than 100 metres to a municipal well. O. Reg. 338/09, s. 43.
 - ii. 46. (5) No person shall apply commercial fertilizer or compost that meets the requirements for Category AA or A compost in Part II of the Compost Standards to land closer than three metres to a water well that is not a municipal well. O. Reg. 284/12, s. 2 (2).
- Requirement for vegetated buffer zone
 - i. 52. (1) No person shall apply nutrients to a field that contains or is adjacent to surface water unless there is a vegetated buffer zone in the field that is adjacent to the surface water and that lies between the surface water and where the nutrients are applied. O. Reg. 338/09, s. 43.
 - 52. (2) Subsection (1) does not apply in relation to the application of nutrients to a field that is composed of organic soils. O. Reg. 338/09, s. 43.
 - 52. (3) No person shall apply nutrients within the vegetated buffer zone except for an amount of commercial fertilizer that is reasonable to establish or maintain the vegetation of the vegetated buffer zone. O. Reg. 338/09, s. 43.
 - 52. (4) For the purposes of subsection (3), a person applies an amount of commercial fertilizer that is reasonable to establish or maintain the vegetation of a vegetated buffer zone if the person applies the fertilizer,
 - (a) in accordance with a determination of the concentration of plant available phosphorus and plant available potassium in the soil of the vegetated buffer zone;
 - (b) in accordance with the Agronomy Guide for Field Crops; and
 - (c) in such a manner that the agronomic balance does not exceed zero. O. Reg. 338/09, s. 43; O. Reg. 284/12, s. 7 (1).
 - 52. (5) The determination of the concentration described in clause (4) (a) shall be made using,
 - (a) the results of an analysis of a sample of the soil performed in accordance with section 94; or
 - (b) the following concentrations:
 - (i) 101 milligrams of plant available phosphorus per litre of soil,
 - (ii) 251 milligrams of plant available potassium per litre of soil. O. Reg. 338/09, s. 43.
 - 52. (6) No person shall apply materials containing nitrogen and phosphorus to any part of the field, whether or not within the vegetated buffer zone, that is within 13 metres from the top of the nearest bank of the surface water. O. Reg. 338/09, s. 43.
 - 52. (7) Despite subsection (6), a person may apply commercial fertilizers, agricultural source materials or NASM that is CM1 and CP1 within the 13 metres from the top of the nearest bank of the surface water if the application is done in accordance with this Regulation and at least one of the following conditions is satisfied:

1. The materials are applied by injection or placement in a band below the soil surface.
2. The materials are incorporated within 24 hours of application.
3. The materials are applied to land covered with a living crop.
4. The materials are applied to land with crop residue covering at least 30 per cent of the soil, as determined in accordance with the Nutrient Management Protocol. O. Reg. 338/09, s. 43; O. Reg. 284/12, s. 7 (2).

These standards only apply to fields that are phased-in to the regulation (see S. 41).

- i. Sections 52.3 and 52.6 apply in respect of all agricultural operations. O. Reg. 338/09, s. 43.
- ii. Sections 42 to 52.2, 52.4, 52.5 and 52.7 to 52.13 apply as follows:
 - a. If this Regulation requires an agricultural operation to have a nutrient management plan, those sections apply to the application of nutrients to land in the course of the operation.
 - b. If this Regulation requires an agricultural operation to have a NASM plan, those sections apply to the application of nutrients to the relevant NASM application area.
 - c. If Category 1 NASM is applied to a NASM application area in the course of an agricultural operation, those sections apply to the application of nutrients to the NASM application area during the calendar year in which the Category 1 NASM is applied. O. Reg. 338/09, s. 43.

Source: [Nutrient Management Act, 2002, S.O. 2002, c. 4,](#)

Standard D5



WARRINERAG

A Division of Hat Trick Farms Inc.



Hat Trick Farms Inc

Home Farm

Field 2

Area: 47.25 ac

Home Farm



Date: 4/26/2018
Farm: Home Farm
Grower: Hat Trick Farms Inc
Area: 116.05 ac



One in = 619 feet
0 208 415 623 830 1038

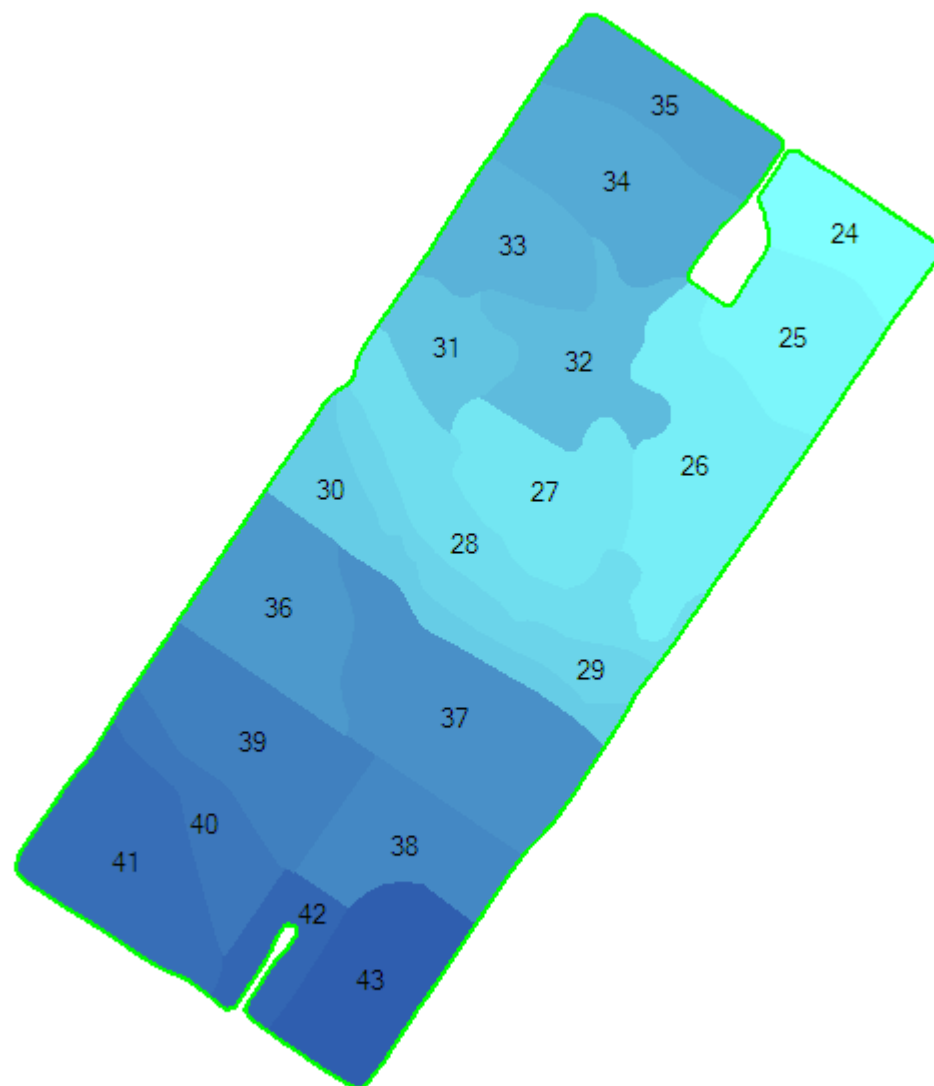


Home Farm

(116.05 ac)

Soil Test Zones

Grower: Hat Trick Farms Inc
Farm: Home Farm
Field: Field 2
Area: 47.25 ac

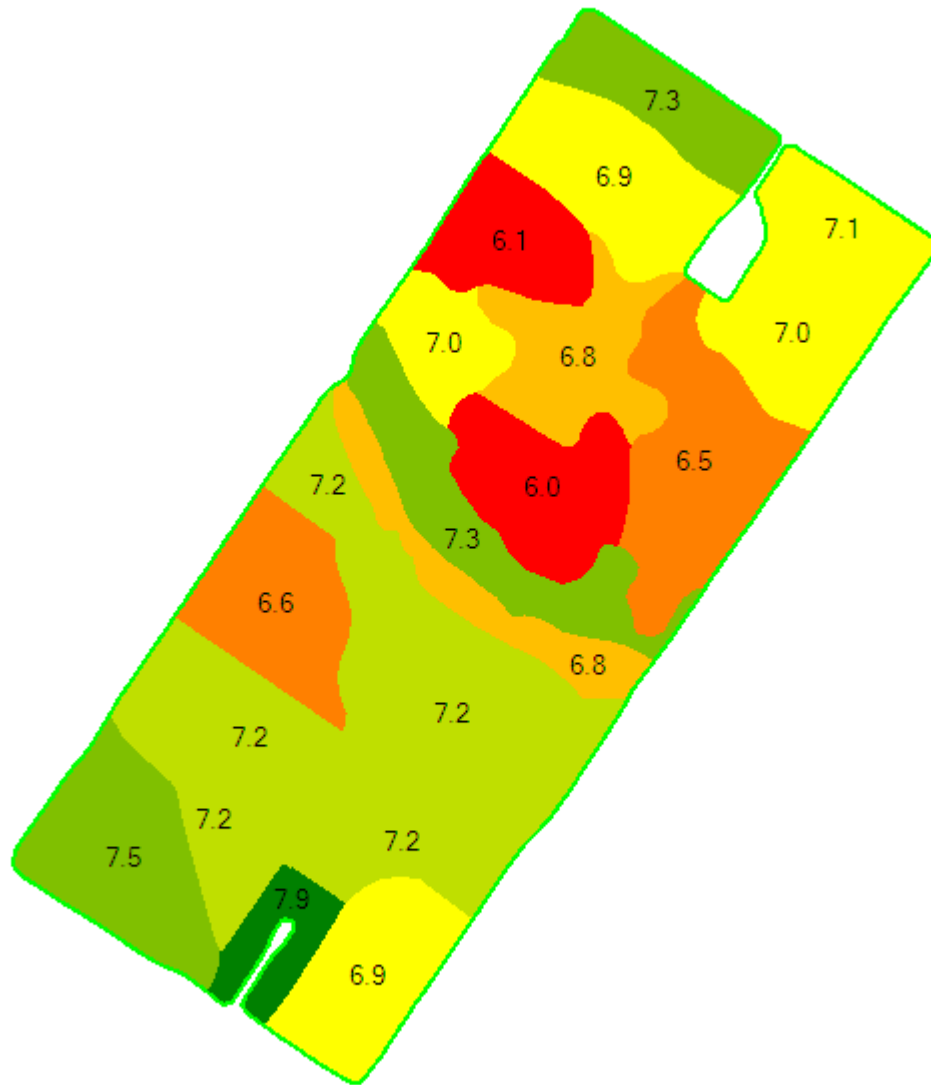


Field Boundary
Soil Test Zones
24 (1.7 ac) (3.5 %)
25 (2.3 ac) (4.8 %)
26 (3.8 ac) (8.1 %)
27 (2.5 ac) (5.2 %)
28 (2.8 ac) (5.9 %)
29 (1.7 ac) (3.7 %)
30 (1.9 ac) (4.0 %)
31 (1.3 ac) (2.9 %)
32 (2.4 ac) (5.1 %)
33 (1.9 ac) (4.1 %)
34 (2.9 ac) (6.1 %)
35 (1.9 ac) (4.0 %)
36 (2.6 ac) (5.4 %)
37 (4.3 ac) (9.0 %)
38 (2.1 ac) (4.5 %)
39 (2.9 ac) (6.2 %)
40 (1.5 ac) (3.1 %)
41 (3.2 ac) (6.8 %)
42 (1.1 ac) (2.3 %)
43 (2.5 ac) (5.3 %)



One in = 421 feet
0 197 394 592 789 988

pH



Grower: Hat Trick Farms
Inc
Farm: Home Farm
Field: Field 2
Area: 47.25 ac

Min: 6.00
Avg: 6.99
Max: 7.90



One in = 421 feet
0 190 380 571 761 951

Field Boundary	
pH	
6 - 6.1 (4.4 ac) (9.3 %)	
6.5 - 6.6 (6.4 ac) (13.5 %)	
6.8 (4.1 ac) (8.7 %)	
6.9 - 7.1 (10.7 ac) (22.6 %)	
7.2 (12.7 ac) (26.8 %)	
7.3 - 7.5 (7.9 ac) (16.7 %)	
7.9 (1.1 ac) (2.3 %)	

BpH



Grower: Hat Trick Farms
Inc
Farm: Home Farm
Field: Field 2
Area: 47.25 ac

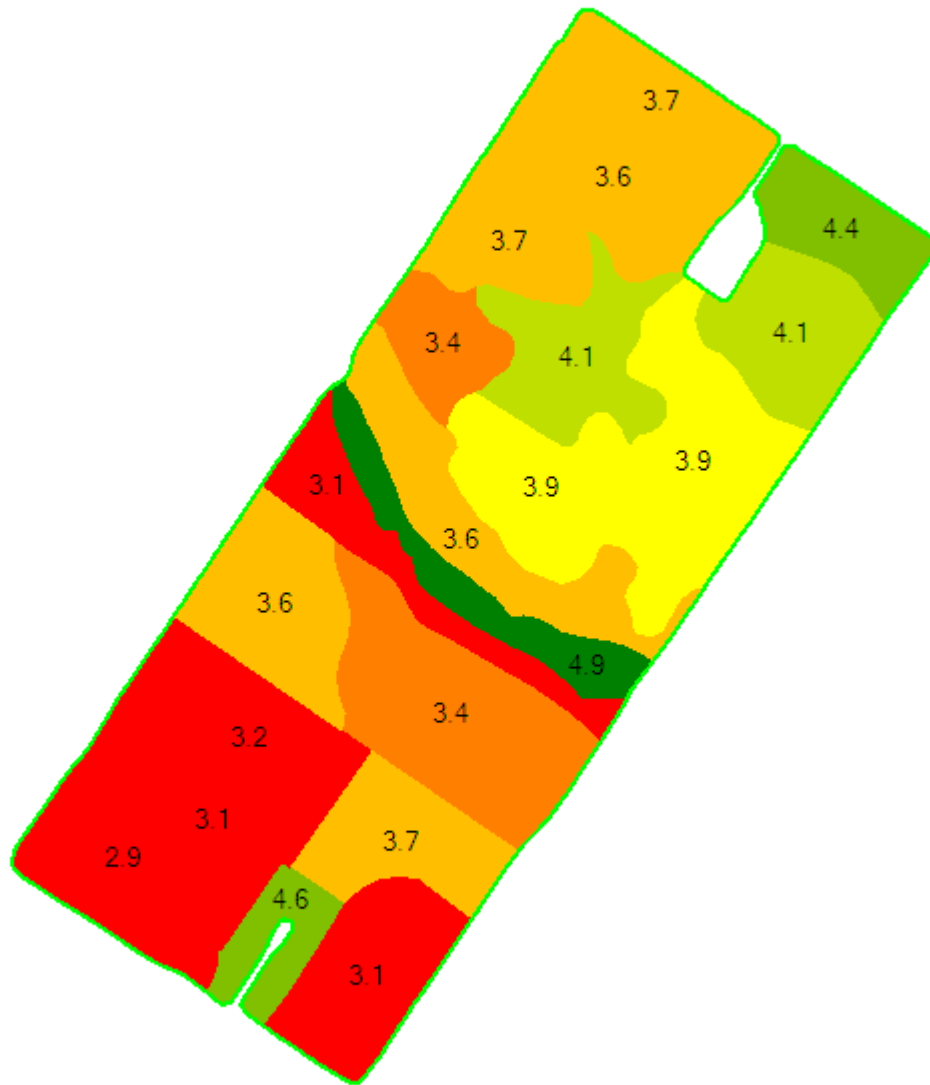
Min: 6.90
Avg: 7.08
Max: 7.20



One in = 421 feet
0 190 380 571 761 951

—	Field Boundary
BpH	
■	6.9 (20.3 ac) (42.9 %)
■	7.2 (27.0 ac) (57.1 %)

OM



Grower: Hat Trick Farms
Inc
Farm: Home Farm
Field: Field 2
Area: 47.25 ac

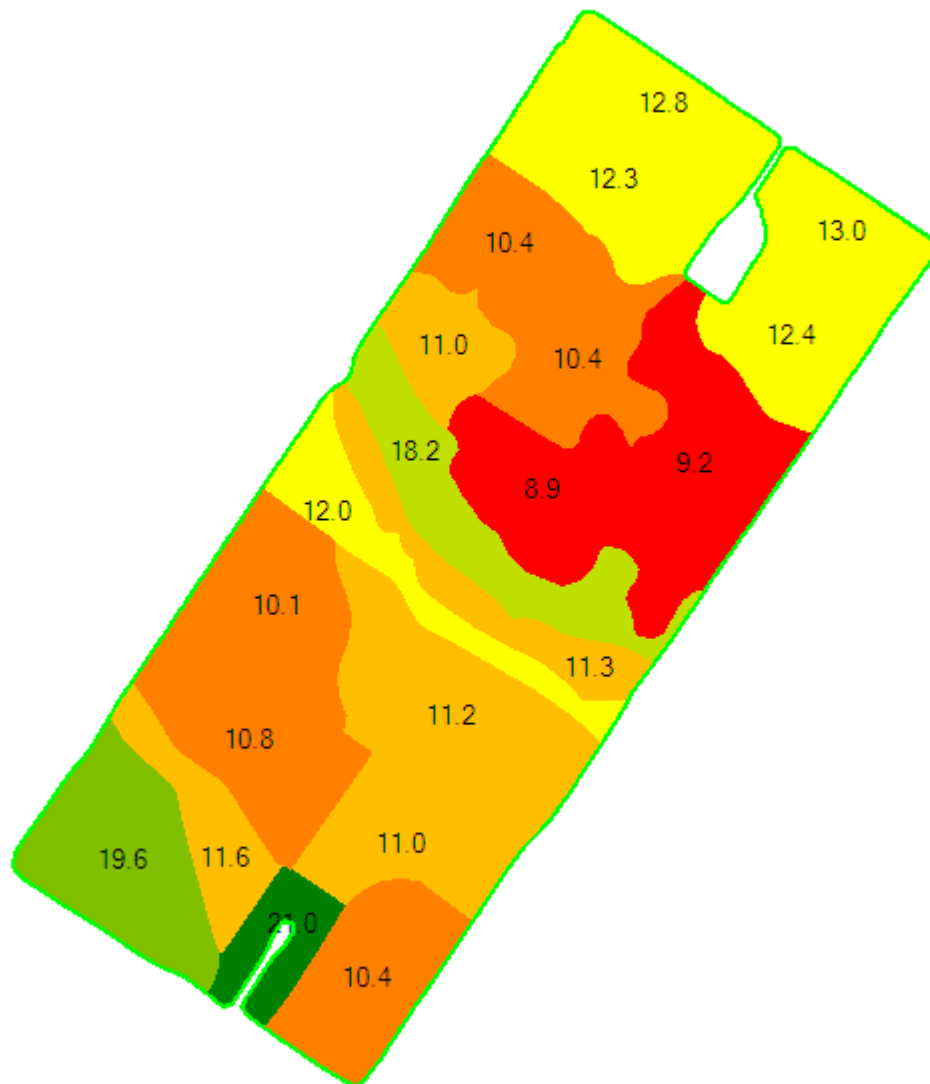
Min: 2.90
Avg: 3.70
Max: 4.90



One in = 421 feet
0 190 380 571 761 951

Field Boundary	
OM	
2.9 - 3.2 (12.0 ac) (25.5 %)	
3.4 (5.6 ac) (11.9 %)	
3.6 - 3.7 (14.1 ac) (29.9 %)	
3.9 (6.3 ac) (13.3 %)	
4.1 (4.7 ac) (9.9 %)	
4.4 - 4.6 (2.8 ac) (5.9 %)	
4.9 (1.7 ac) (3.7 %)	

CEC



Grower: Hat Trick Farms
Inc
Farm: Home Farm
Field: Field 2
Area: 47.25 ac

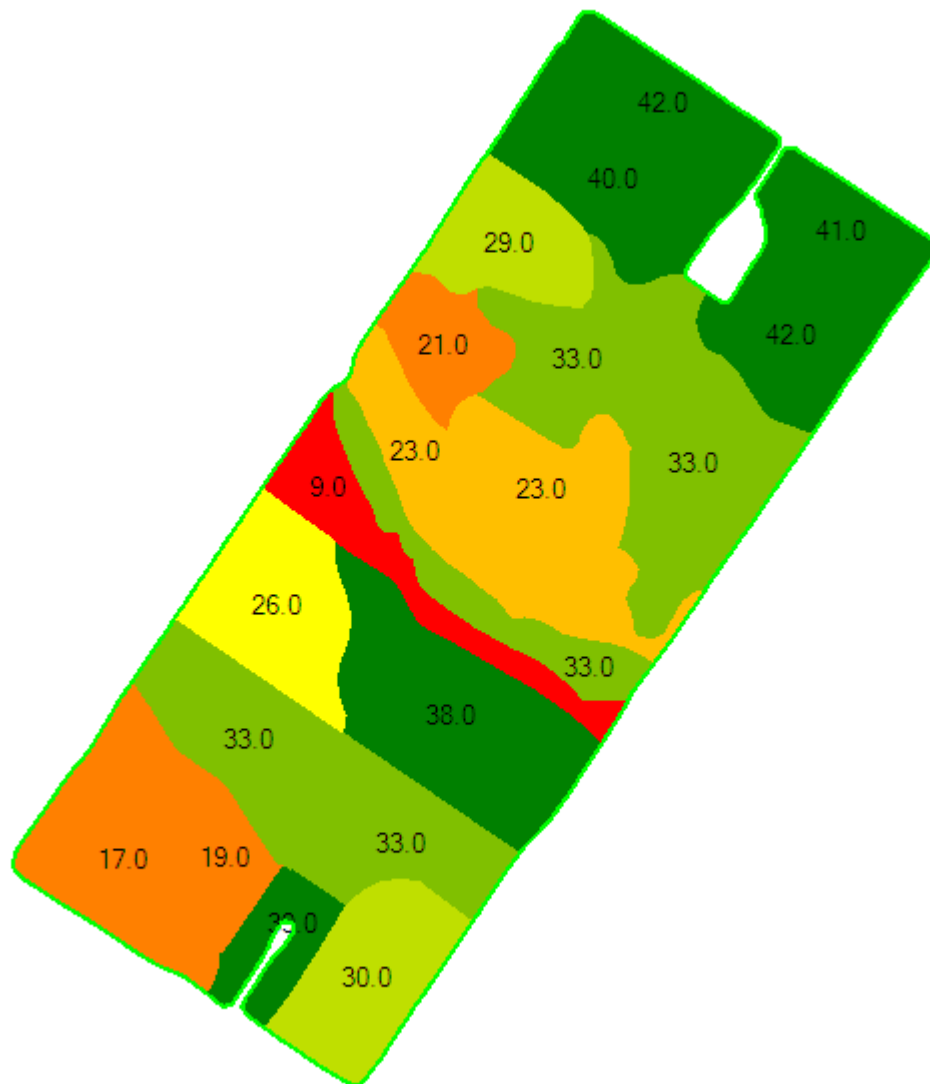
Min: 8.90
Avg: 12.38
Max: 21.00



One in = 421 feet
0 190 380 571 761 951

Field Boundary	
CEC	
8.9 - 9.2 (6.3 ac) (13.3 %)	
10.1 - 10.8 (12.3 ac) (26.0 %)	
11 - 11.6 (10.9 ac) (23.1 %)	
12 - 13 (10.6 ac) (22.5 %)	
18.2 (2.8 ac) (5.9 %)	
19.6 (3.2 ac) (6.8 %)	
21 (1.1 ac) (2.3 %)	

P Bicarb



Grower: Hat Trick Farms
Inc
Farm: Home Farm
Field: Field 2
Area: 47.25 ac

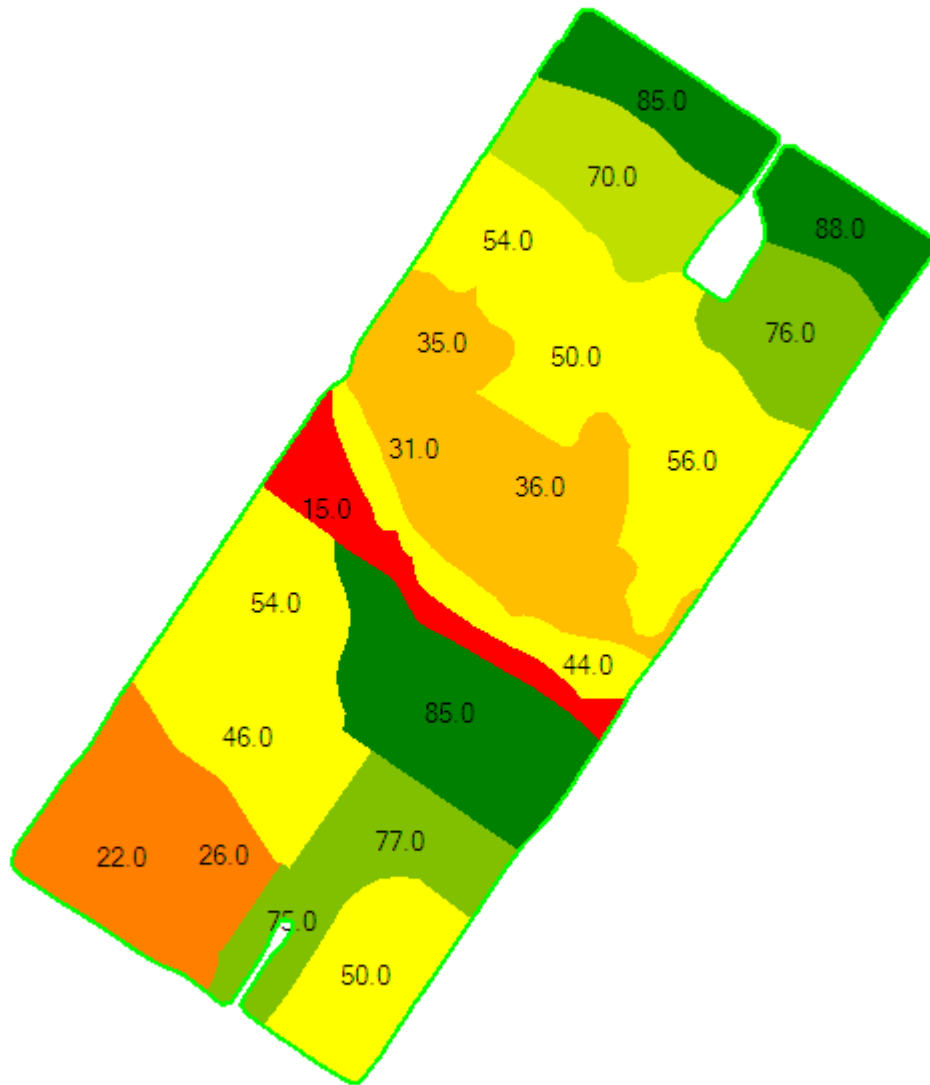
Min: 9.00
Avg: 30.20
Max: 42.00



One in = 421 feet
0 190 380 571 761 951

Field Boundary
P Bicarb
9 (1.9 ac) (4.0 %)
17 - 21 (6.0 ac) (12.8 %)
23 (5.3 ac) (11.1 %)
26 (2.6 ac) (5.4 %)
29 - 30 (4.4 ac) (9.4 %)
33 (13.0 ac) (27.4 %)
38 - 42 (14.1 ac) (29.8 %)

P Bray 1



Grower: Hat Trick Farms
Inc
Farm: Home Farm
Field: Field 2
Area: 47.25 ac

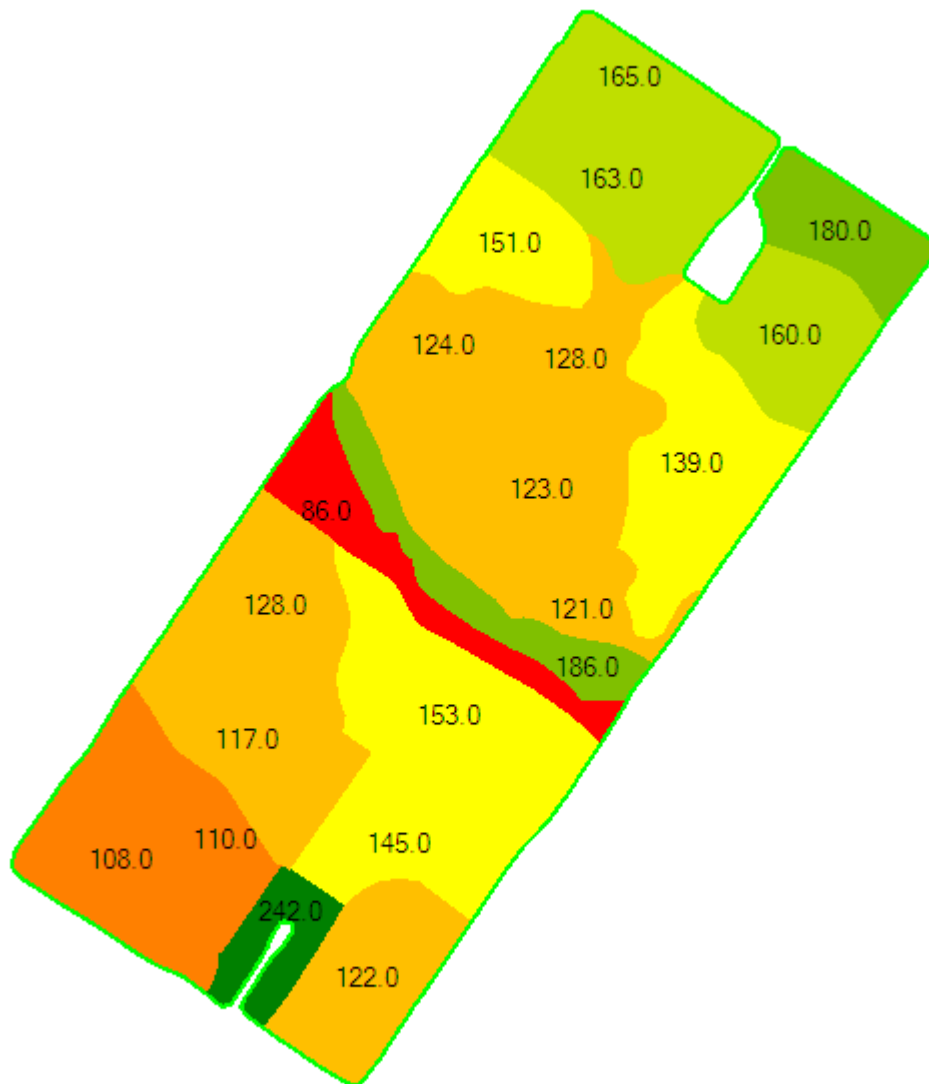
Min: 15.00
Avg: 53.75
Max: 88.00



One in = 421 feet
0 190 380 571 761 951

—	Field Boundary
P Bray 1	
15	(1.9 ac) (4.0 %)
22 - 26	(4.7 ac) (9.9 %)
31 - 36	(6.6 ac) (14.0 %)
44 - 56	(17.8 ac) (37.8 %)
70	(2.9 ac) (6.1 %)
75 - 77	(5.5 ac) (11.6 %)
85 - 88	(7.8 ac) (16.5 %)

K



Grower: Hat Trick Farms
Inc
Farm: Home Farm
Field: Field 2
Area: 47.25 ac

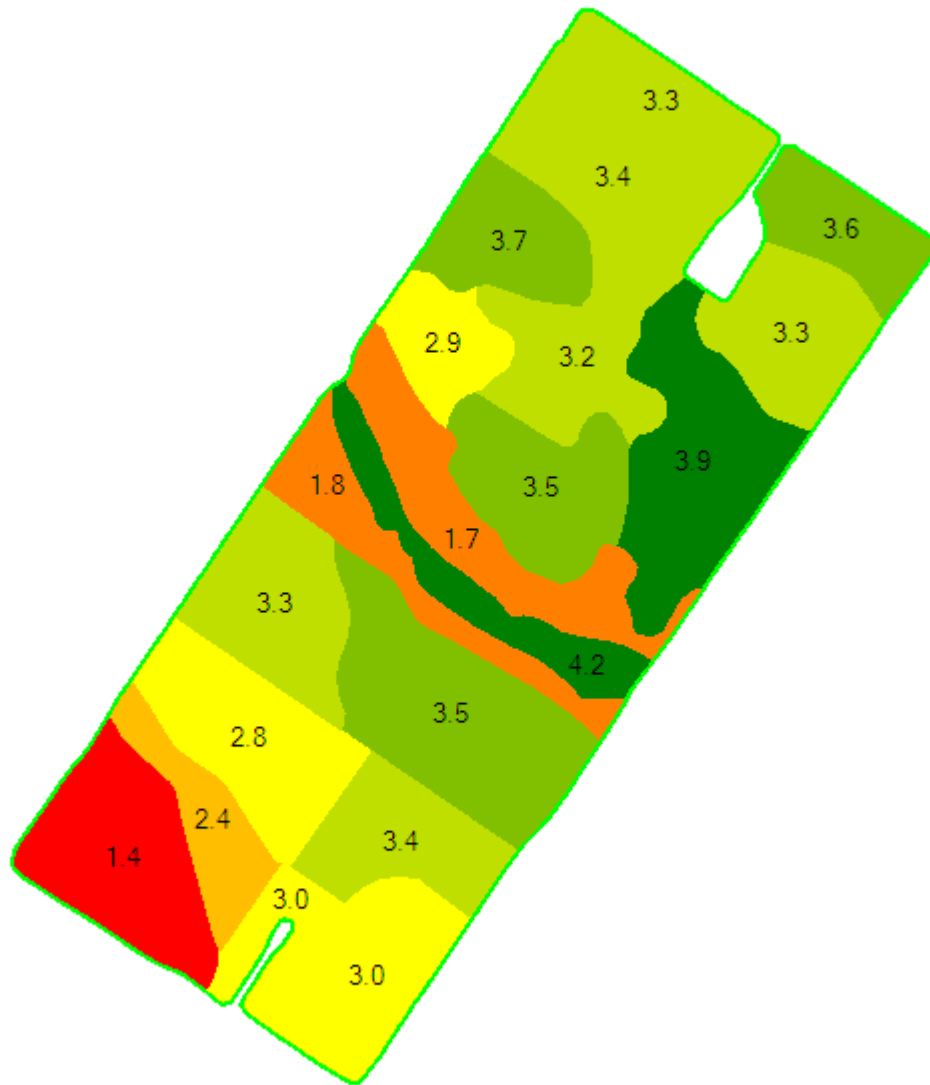
Min: 86.00
Avg: 142.55
Max: 242.00



One in = 421 feet
0 190 380 571 761 951

Field Boundary	K
86 (1.9 ac) (4.0 %)	
108 - 110 (4.7 ac) (9.9 %)	
117 - 128 (17.0 ac) (36.0 %)	
139 - 153 (12.1 ac) (25.6 %)	
160 - 165 (7.0 ac) (14.9 %)	
180 - 186 (3.4 ac) (7.2 %)	
242 (1.1 ac) (2.3 %)	

K%



Grower: Hat Trick Farms
Inc
Farm: Home Farm
Field: Field 2
Area: 47.25 ac

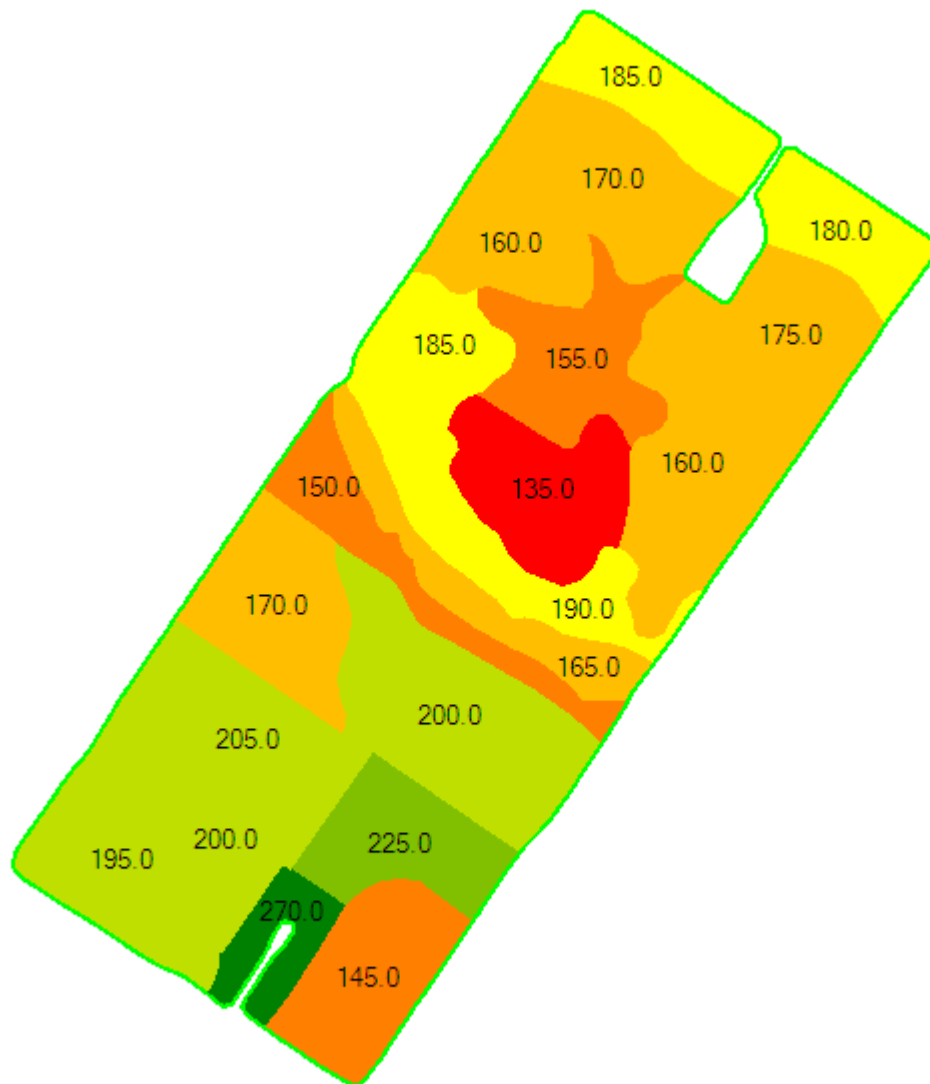
Min: 1.40
Avg: 3.07
Max: 4.20



One in = 421 feet
0 190 380 571 761 951

—	Field Boundary
K%	
■	1.4 (3.2 ac) (6.8 %)
■	1.7 - 1.8 (4.7 ac) (10.0 %)
■	2.4 (1.5 ac) (3.1 %)
■	2.8 - 3 (7.9 ac) (16.7 %)
■	3.2 - 3.4 (14.1 ac) (29.9 %)
■	3.5 - 3.7 (10.3 ac) (21.8 %)
■	3.9 - 4.2 (5.5 ac) (11.7 %)

Mg



Grower: Hat Trick Farms
Inc
Farm: Home Farm
Field: Field 2
Area: 47.25 ac

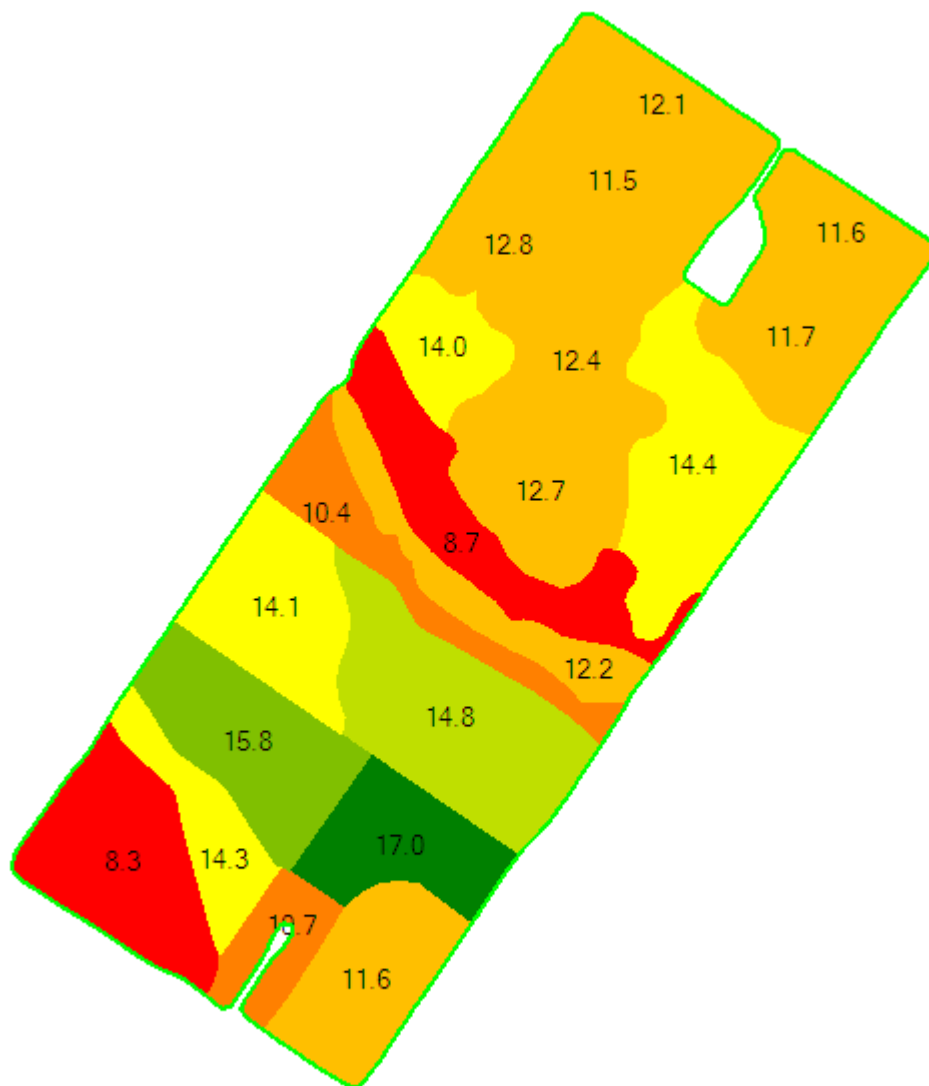
Min: 135.00
Avg: 181.00
Max: 270.00



One in = 421 feet
0 190 380 571 761 951

—	Field Boundary
Mg	
■	135 (2.5 ac) (5.2 %)
■	145 - 155 (6.8 ac) (14.4 %)
■	160 - 175 (15.2 ac) (32.1 %)
■	180 - 190 (7.7 ac) (16.3 %)
■	195 - 205 (11.9 ac) (25.1 %)
■	225 (2.1 ac) (4.5 %)
■	270 (1.1 ac) (2.3 %)

Mg %



Grower: Hat Trick Farms
Inc
Farm: Home Farm
Field: Field 2
Area: 47.25 ac

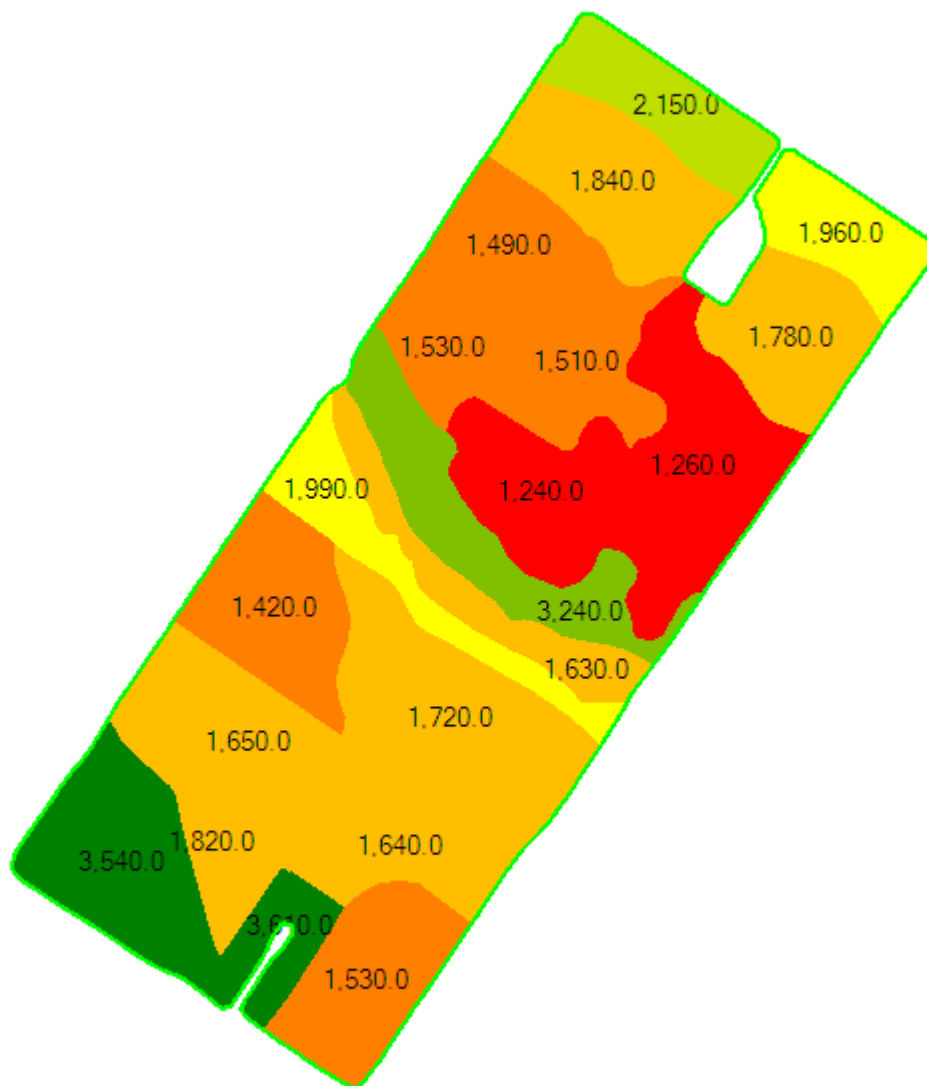
Min: 8.30
Avg: 12.56
Max: 17.00



One in = 421 feet
0 190 380 571 761 951

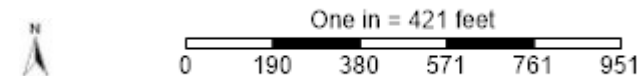
—	Field Boundary
	Mg %
■	8.3 - 8.7 (6.0 ac) (12.7 %)
■	10.4 - 10.7 (3.0 ac) (6.4 %)
■	11.5 - 12.8 (19.7 ac) (41.7 %)
■	14 - 14.4 (9.2 ac) (19.5 %)
■	14.8 (4.3 ac) (9.0 %)
■	15.8 (2.9 ac) (6.2 %)
■	17 (2.1 ac) (4.5 %)

Ca



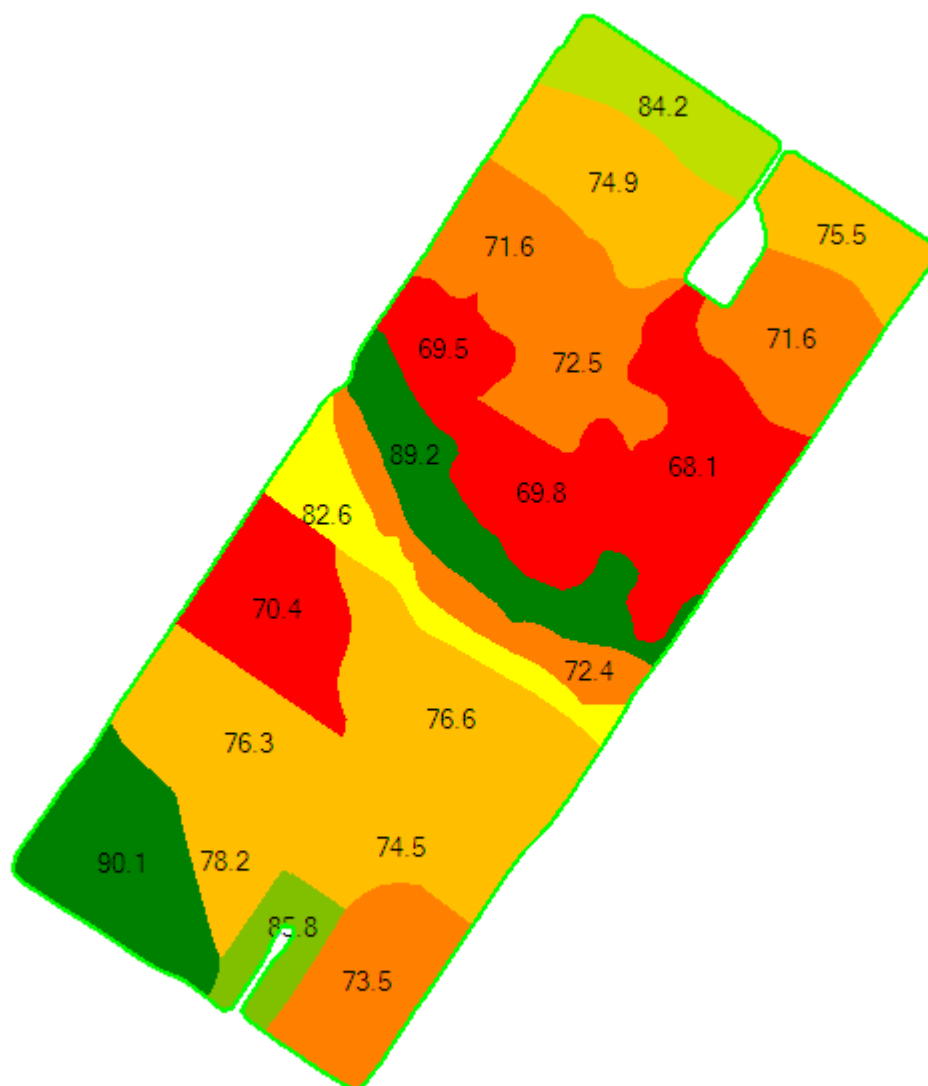
Grower: Hat Trick Farms
Inc
Farm: Home Farm
Field: Field 2
Area: 47.25 ac

Min: 1,240.00
Avg: 1,927.50
Max: 3,610.00



Field Boundary	
Ca	
1240 - 1260 (6.3 ac) (13.3 %)	
1420 - 1530 (10.7 ac) (22.7 %)	
1630 - 1840 (17.7 ac) (37.4 %)	
1960 - 1990 (3.6 ac) (7.6 %)	
2150 (1.9 ac) (4.0 %)	
3240 (2.8 ac) (5.9 %)	
3540 - 3610 (4.3 ac) (9.1 %)	

Ca %



Grower: Hat Trick Farms
Inc
Farm: Home Farm
Field: Field 2
Area: 47.25 ac

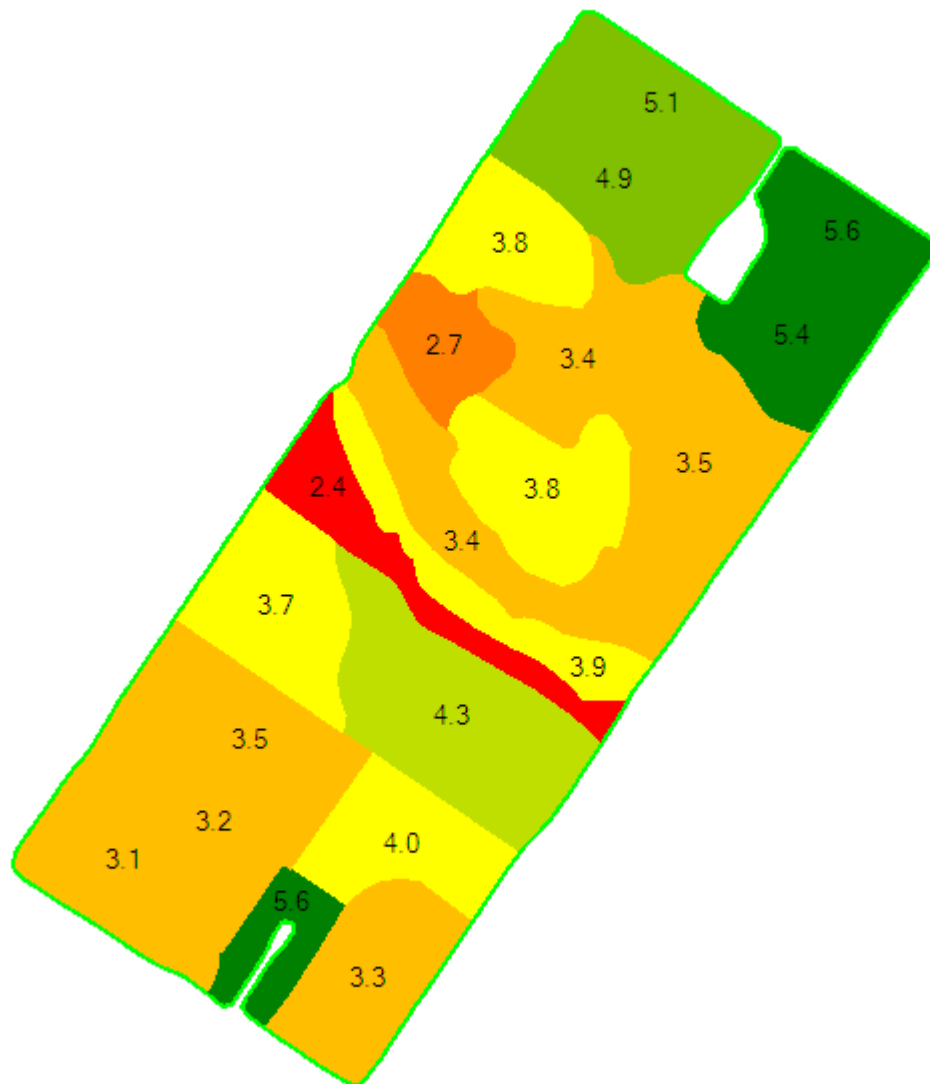
Min: 68.10
Avg: 76.37
Max: 90.10



One in = 421 feet
0 190 380 571 761 951

Field Boundary
Ca %
68.1 - 70.4 (10.2 ac) (21.6 %)
71.6 - 73.5 (10.8 ac) (22.9 %)
74.5 - 78.2 (15.3 ac) (32.4 %)
82.6 (1.9 ac) (4.0 %)
84.2 (1.9 ac) (4.0 %)
85.8 (1.1 ac) (2.3 %)
89.2 - 90.1 (6.0 ac) (12.7 %)

Zn



Grower: Hat Trick Farms
Inc
Farm: Home Farm
Field: Field 2
Area: 47.25 ac

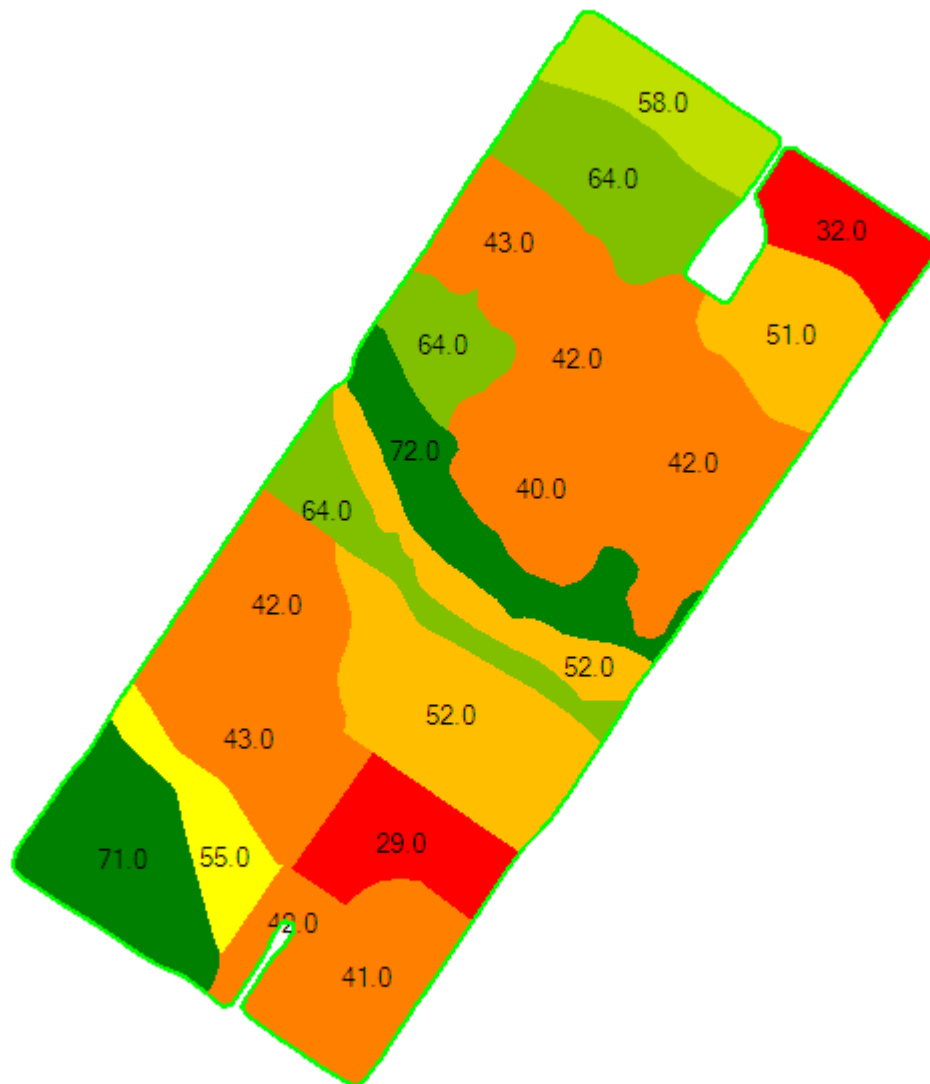
Min: 2.40
Avg: 3.93
Max: 5.60



One in = 421 feet
0 190 380 571 761 951

Field Boundary
Zn
2.4 (1.9 ac) (4.0 %)
2.7 (1.3 ac) (2.9 %)
3.1 - 3.5 (19.2 ac) (40.5 %)
3.7 - 4 (10.8 ac) (22.8 %)
4.3 (4.3 ac) (9.0 %)
4.9 - 5.1 (4.7 ac) (10.0 %)
5.4 - 5.6 (5.1 ac) (10.7 %)

Mn



Grower: Hat Trick Farms
Inc
Farm: Home Farm
Field: Field 2
Area: 47.25 ac

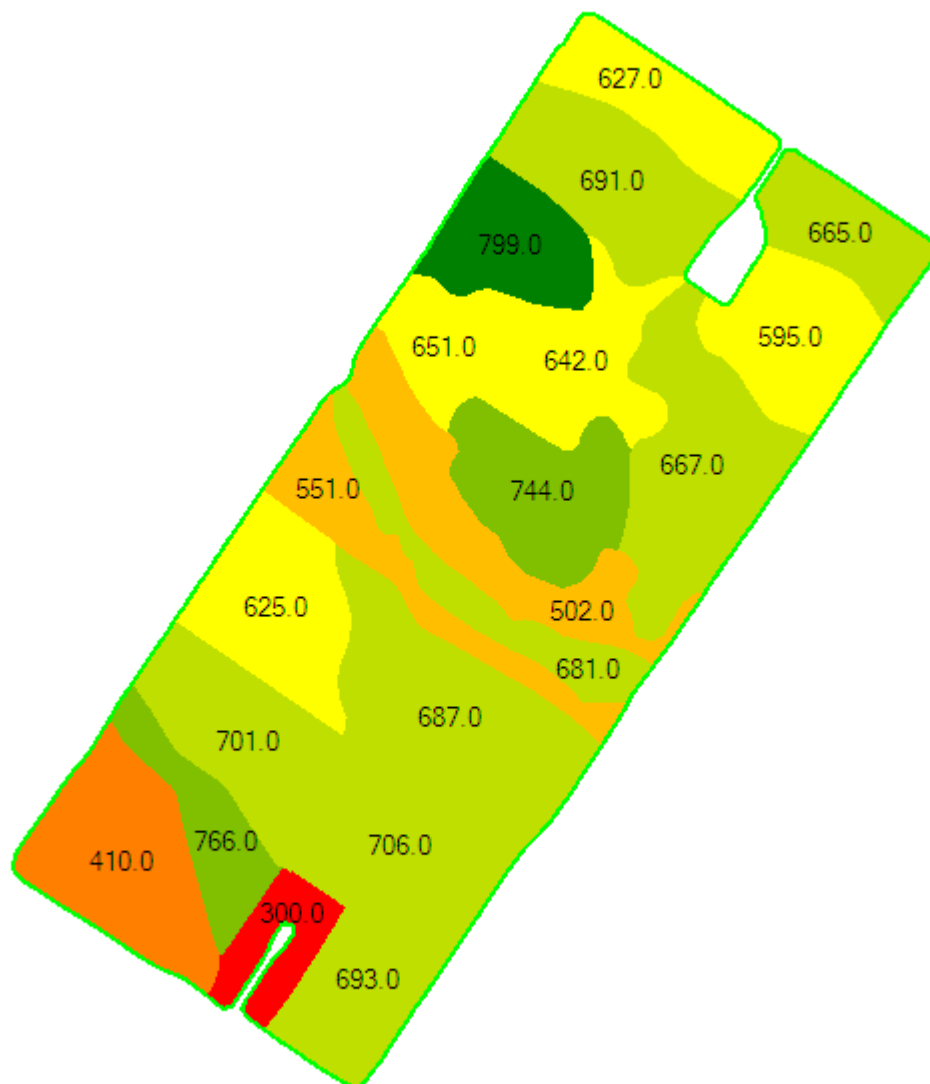
Min: 29.00
Avg: 49.95
Max: 72.00



One in = 421 feet
0 190 380 571 761 951

Field Boundary	
Mn	
29 - 32 (3.8 ac) (8.0 %)	
40 - 43 (19.7 ac) (41.6 %)	
51 - 52 (8.3 ac) (17.5 %)	
55 (1.5 ac) (3.1 %)	
58 (1.9 ac) (4.0 %)	
64 (6.1 ac) (13.0 %)	
71 - 72 (6.0 ac) (12.7 %)	

AI



Grower: Hat Trick Farms
Inc
Farm: Home Farm
Field: Field 2
Area: 47.25 ac

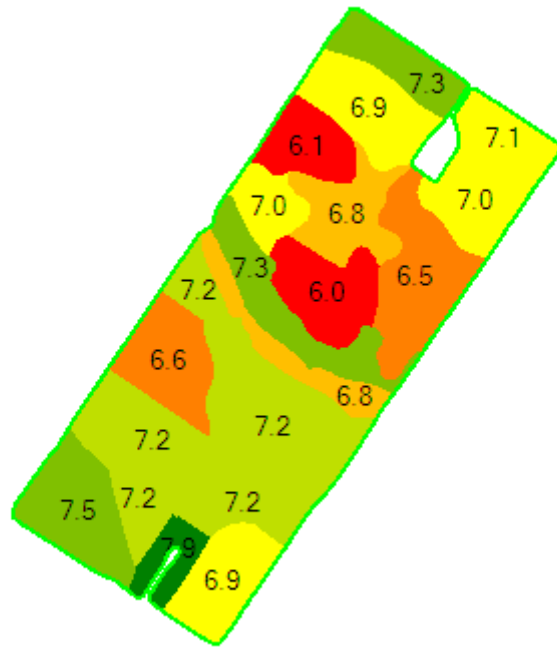
Min: 300.00
Avg: 635.15
Max: 799.00



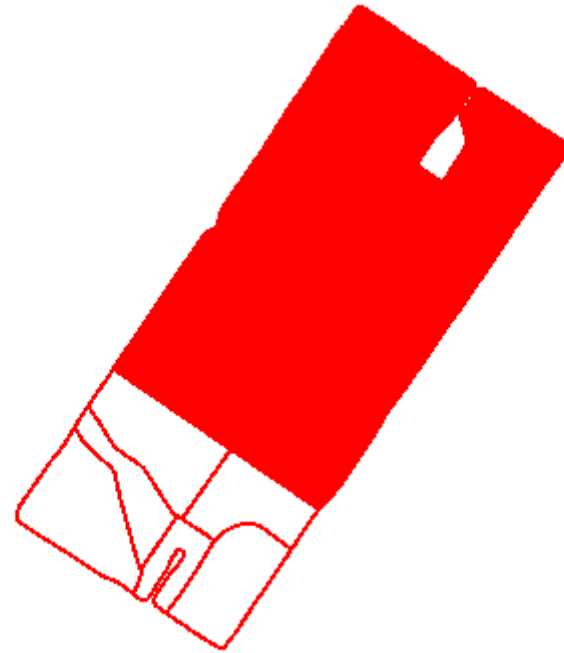
One in = 421 feet
0 190 380 571 761 951

Field Boundary	
AI	
300 (1.1 ac) (2.3 %)	
410 (3.2 ac) (6.8 %)	
502 - 551 (4.7 ac) (10.0 %)	
595 - 651 (10.5 ac) (22.2 %)	
665 - 706 (21.9 ac) (46.3 %)	
744 - 766 (3.9 ac) (8.3 %)	
799 (1.9 ac) (4.1 %)	

pH



Lime Recommendation (2015)



Grower: Hat Trick Farms Inc
Farm: Home Farm
Field: Field 2
Area: 47.25 ac

Min: 6.00
Avg: 6.99
Max: 7.90

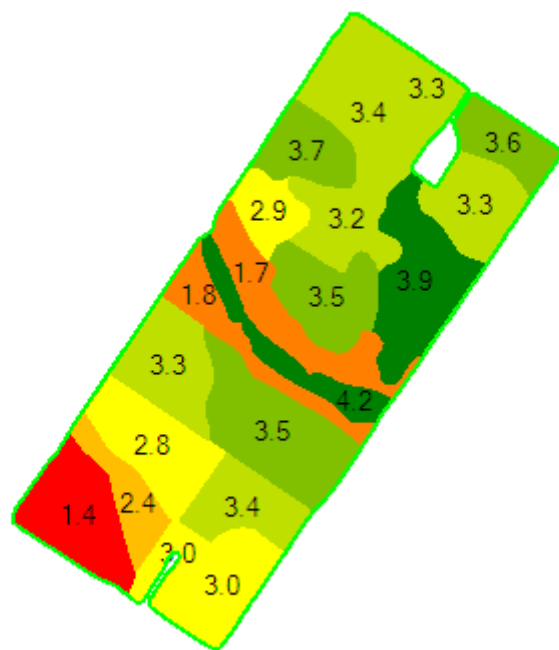
Season: 2015
Min Rate: 0.00 lb/ac
Avg Rate: 0.00 lb/ac
Max Rate: 0.00 lb/ac
Total Nutrient: 0.00 lb
Applied Area: 0.00 ac

Order Id: 496084
Order Task Id: 13303674
Crop - Year 1: Corn
Purpose - Year 1: Dry Grain

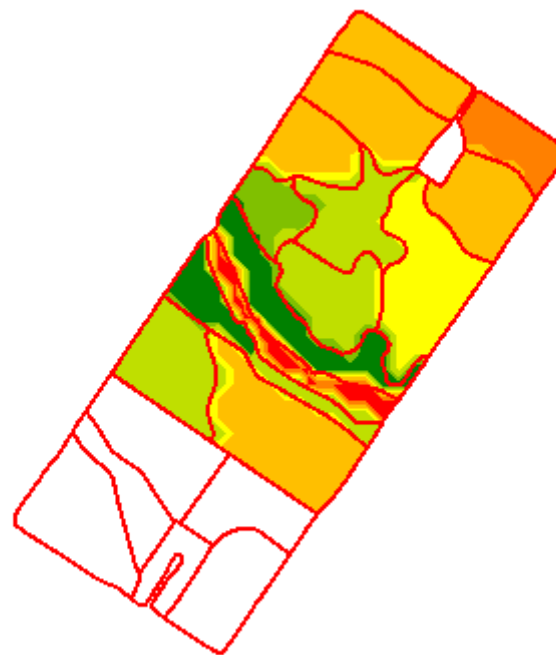
Field Boundary	pH
6 - 6.1 (4.4 ac) (9.3 %)	
6.5 - 6.6 (6.4 ac) (13.5 %)	
6.8 (4.1 ac) (8.7 %)	
6.9 - 7.1 (10.7 ac) (22.6 %)	
7.2 (12.7 ac) (26.8 %)	
7.3 - 7.5 (7.9 ac) (16.7 %)	
7.9 (1.1 ac) (2.3 %)	

Management Zone Boundary	
Field Boundary	
Lime Recommendation lb/ac	
0 (33.9 ac) (71.8 %)	

K%



K2O Recommendation (2015)

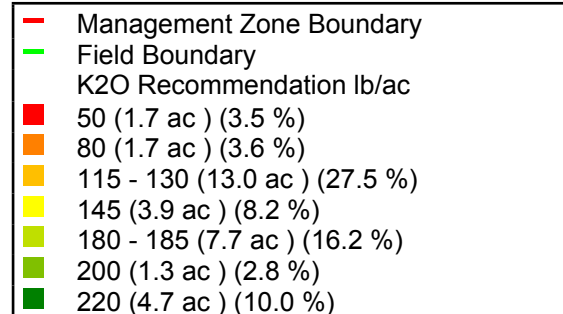
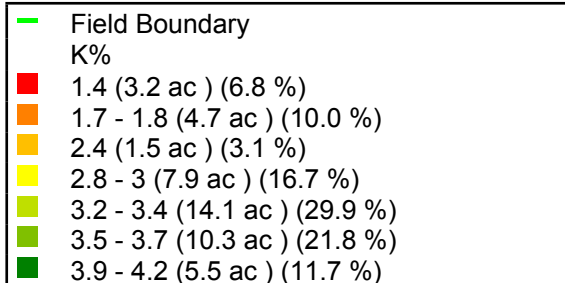


Grower: Hat Trick Farms Inc
Farm: Home Farm
Field: Field 2
Area: 47.25 ac

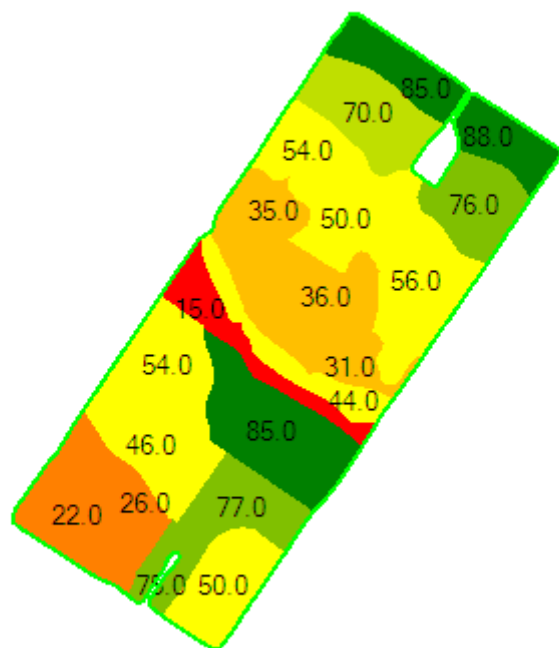
Min: 1.40
Avg: 3.07
Max: 4.20

Season: 2015
Min Rate: 50.00 lb/ac
Avg Rate: 149.93 lb/ac
Max Rate: 220.00 lb/ac
Total Nutrient: 5,086.70 lb
Applied Area: 33.93 ac

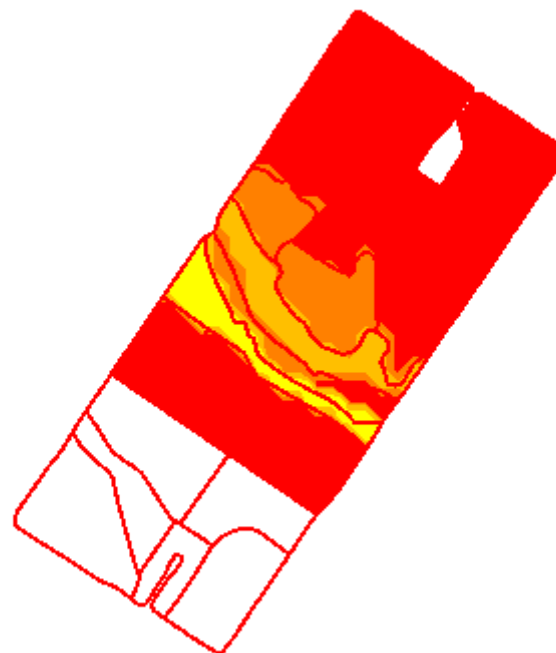
Order Id: 496084
Order Task Id: 13303683
Crop - Year 1: Corn
Purpose - Year 1: Dry Grain
Yield Goal - Year 1: 200



P Bray 1



P2O5 Recommendation (2015)

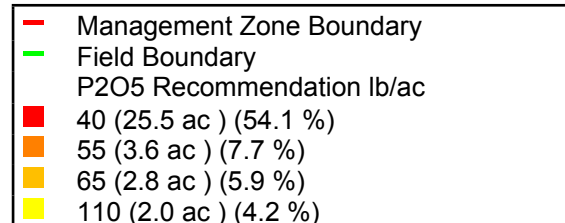
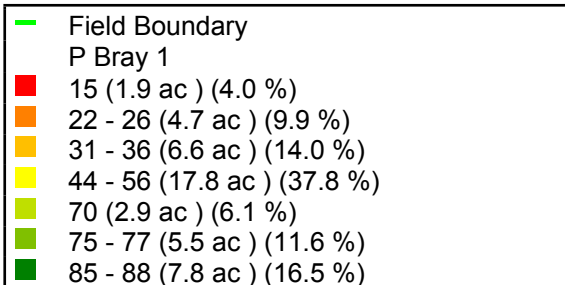


Grower: Hat Trick Farms Inc
Farm: Home Farm
Field: Field 2
Area: 47.25 ac

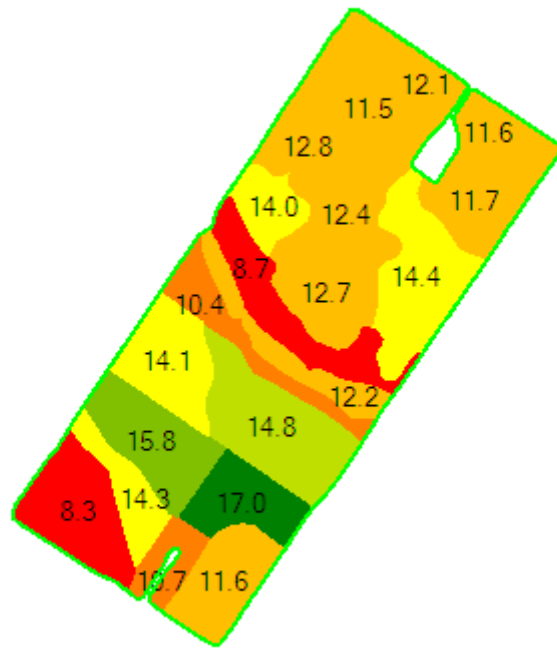
Min: 15.00
Avg: 53.75
Max: 88.00

Season: 2015
Min Rate: 40.00 lb/ac
Avg Rate: 47.71 lb/ac
Max Rate: 110.00 lb/ac
Total Nutrient: 1,618.59 lb
Applied Area: 33.93 ac

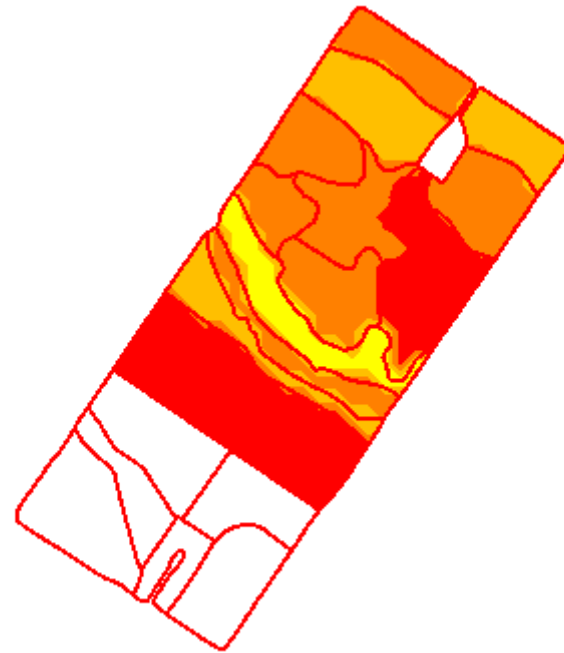
Order Id: 496084
Order Task Id: 13303680
Crop - Year 1: Corn
Purpose - Year 1: Dry Grain
Yield Goal - Year 1: 200



Mg %



Mg Recommendation (2015)



Grower: Hat Trick Farms Inc
Farm: Home Farm
Field: Field 2
Area: 47.25 ac

Min: 8.30
Avg: 12.56
Max: 17.00

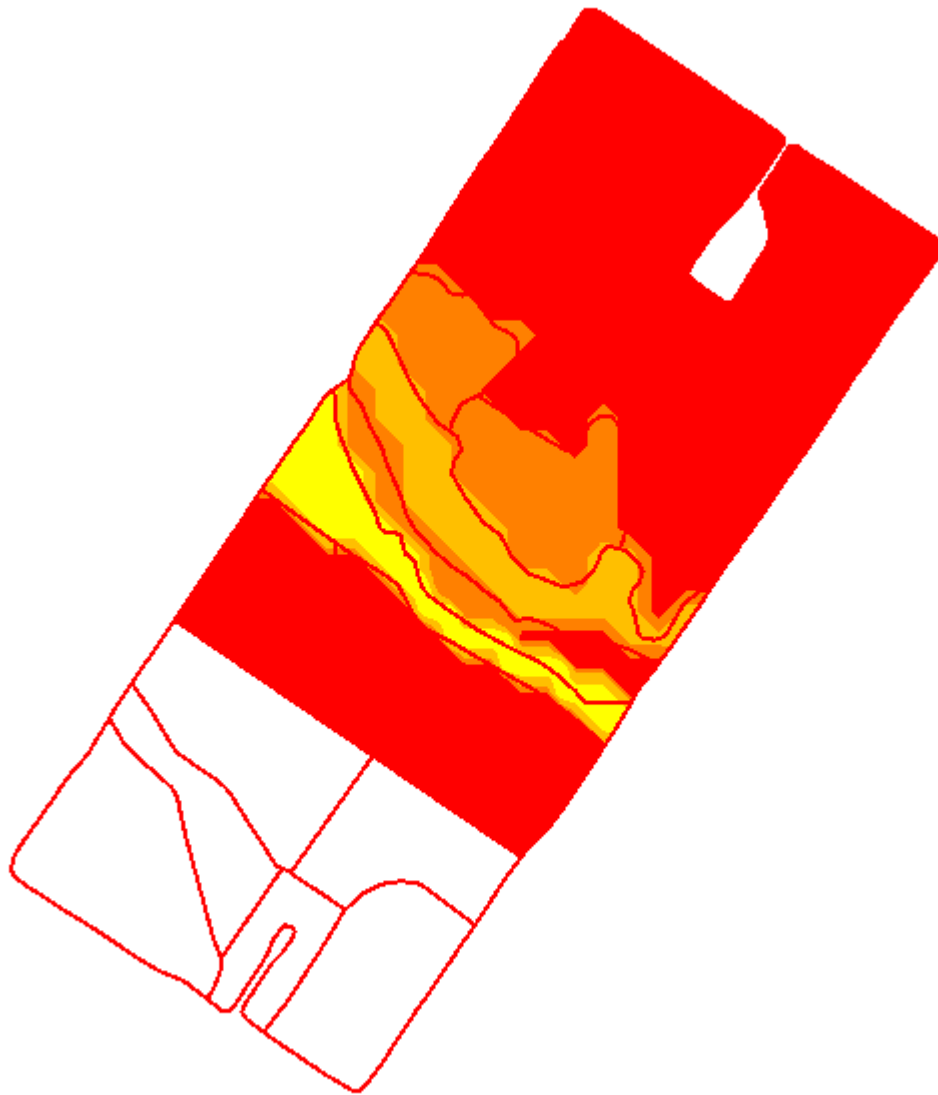
Season: 2015
Min Rate: 5.00 lb/ac
Avg Rate: 10.13 lb/ac
Max Rate: 20.00 lb/ac
Total Nutrient: 343.71 lb
Applied Area: 33.93 ac

Order Id: 496084
Order Task Id: 13303689
Crop - Year 1: Corn
Purpose - Year 1: Dry Grain

—	Field Boundary
■	Mg %
■	8.3 - 8.7 (6.0 ac) (12.7 %)
■	10.4 - 10.7 (3.0 ac) (6.4 %)
■	11.5 - 12.8 (19.7 ac) (41.7 %)
■	14 - 14.4 (9.2 ac) (19.5 %)
■	14.8 (4.3 ac) (9.0 %)
■	15.8 (2.9 ac) (6.2 %)
■	17 (2.1 ac) (4.5 %)

—	Management Zone Boundary
—	Field Boundary
■	Mg Recommendation lb/ac
■	5 (11.0 ac) (23.2 %)
■	10 (13.9 ac) (29.4 %)
■	15 (6.3 ac) (13.3 %)
■	20 (2.8 ac) (5.9 %)

MAP Recommendation



Grower: Hat Trick Farms Inc
Farm: Home Farm
Field: Field 2
Area: 33.93 ac

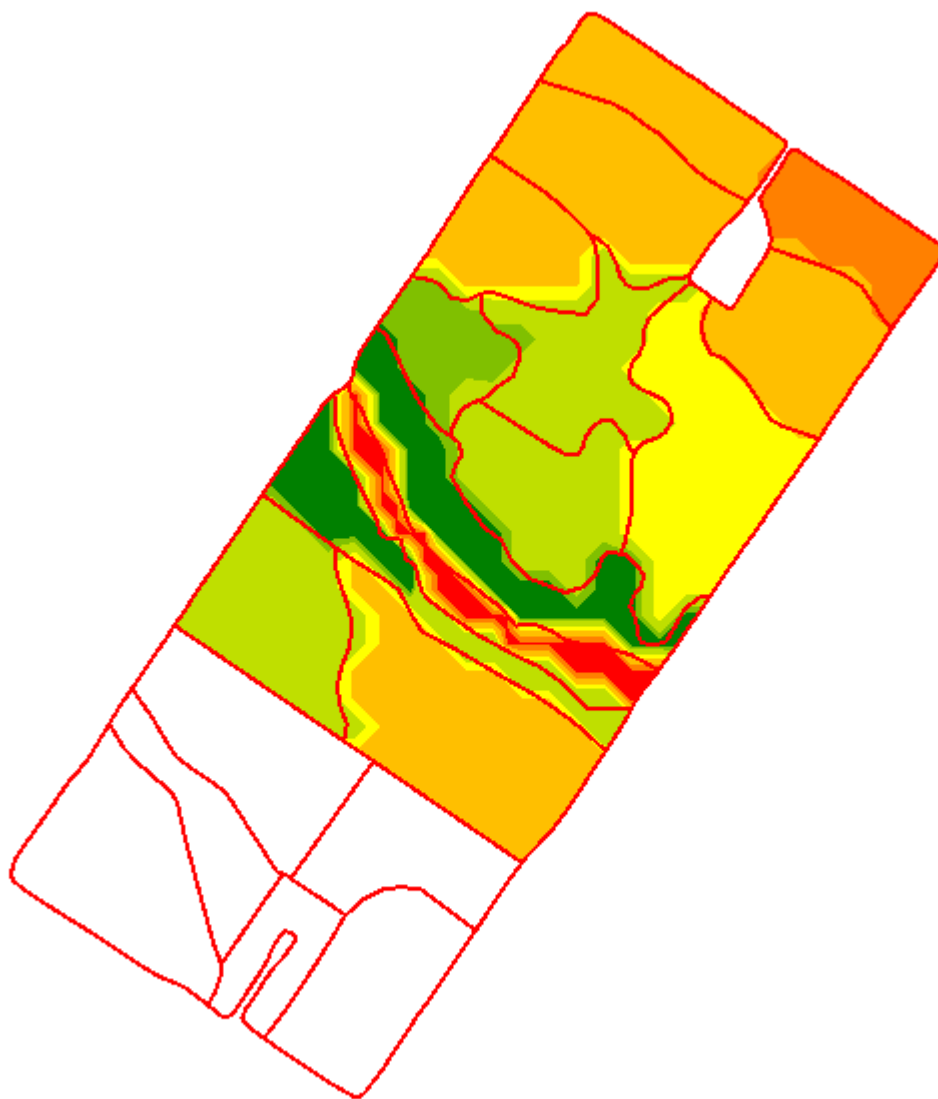


One in = 418 feet
0 189 378 567 756 945

Season: 2015
Min Rate: 75.00 lb/ac
Avg Rate: 90.13 lb/ac
Max Rate: 210.00 lb/ac
Total Product: 3,057.72 lb
Applied Area: 33.93 ac
Product: 11-52-0 MAP
Order Id: 496084
Order Task Id: 13303680
Crop - Year 1: Corn
Purpose - Year 1: Dry Grain
Yield Goal - Year 1: 200

—	Management Zone Boundary
—	Field Boundary
MAP Recommendation lb/ac	
■	75 (25.5 ac) (54.1 %)
■	105 (3.6 ac) (7.7 %)
■	125 (2.8 ac) (5.9 %)
■	210 (2.0 ac) (4.2 %)

Potash Recommendation



Grower: Hat Trick Farms Inc
Farm: Home Farm
Field: Field 2
Area: 33.93 ac

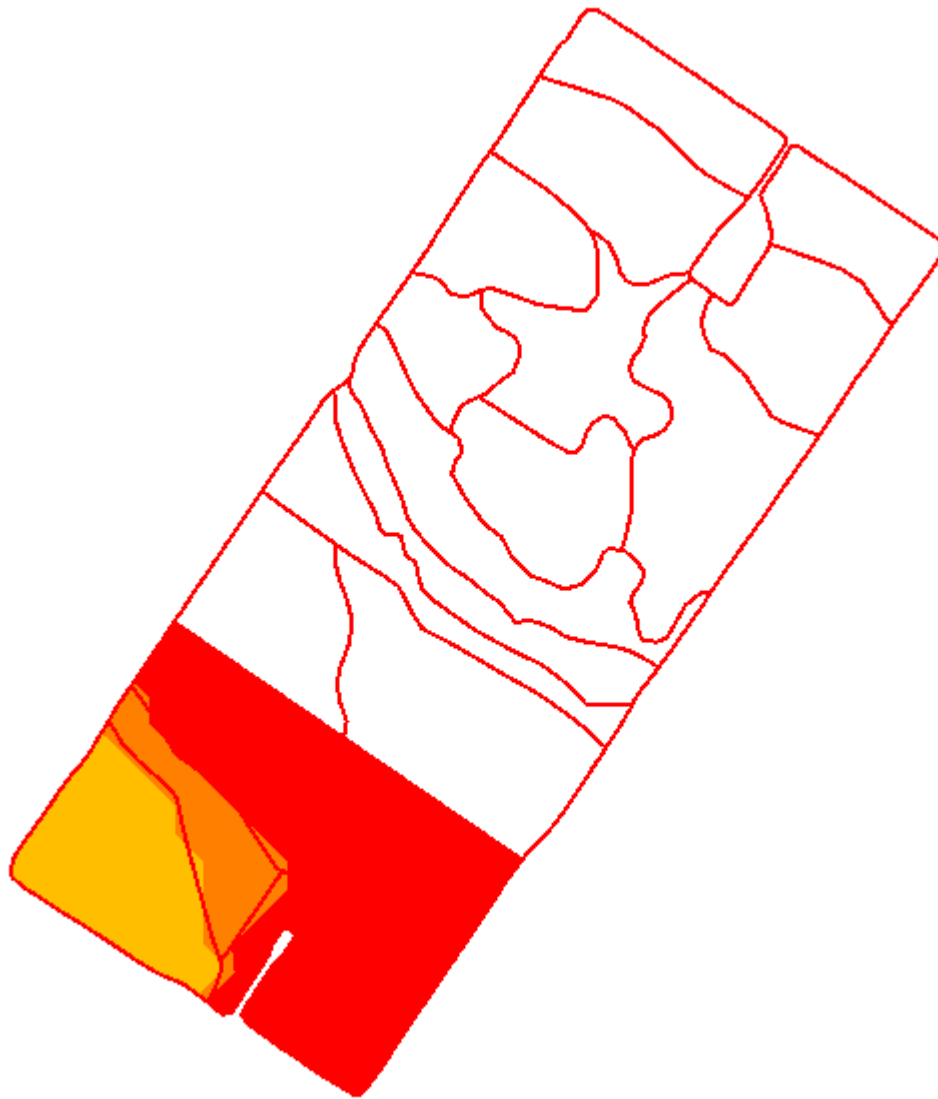


One in = 417 feet
0 189 377 566 755 943

Season: 2015
Min Rate: 85.00 lb/ac
Avg Rate: 249.41 lb/ac
Max Rate: 365.00 lb/ac
Total Product: 8,461.68 lb
Applied Area: 33.93 ac
Product: 0-0-60
Order Id: 496084
Order Task Id: 13303683
Crop - Year 1: Corn
Purpose - Year 1: Dry Grain
Yield Goal - Year 1: 200

—	Management Zone Boundary
—	Field Boundary
Potash Recommendation lb/ac	
■	85 (1.7 ac) (3.5 %)
■	135 (1.7 ac) (3.6 %)
■	190 - 215 (13.0 ac) (27.5 %)
■	240 (3.9 ac) (8.2 %)
■	300 - 310 (7.7 ac) (16.2 %)
■	335 (1.3 ac) (2.8 %)
■	365 (4.7 ac) (10.0 %)

MAP Recommendation



Grower: Hat Trick Farms Inc
Farm: Home Farm
Field: Field 2
Area: 13.33 ac

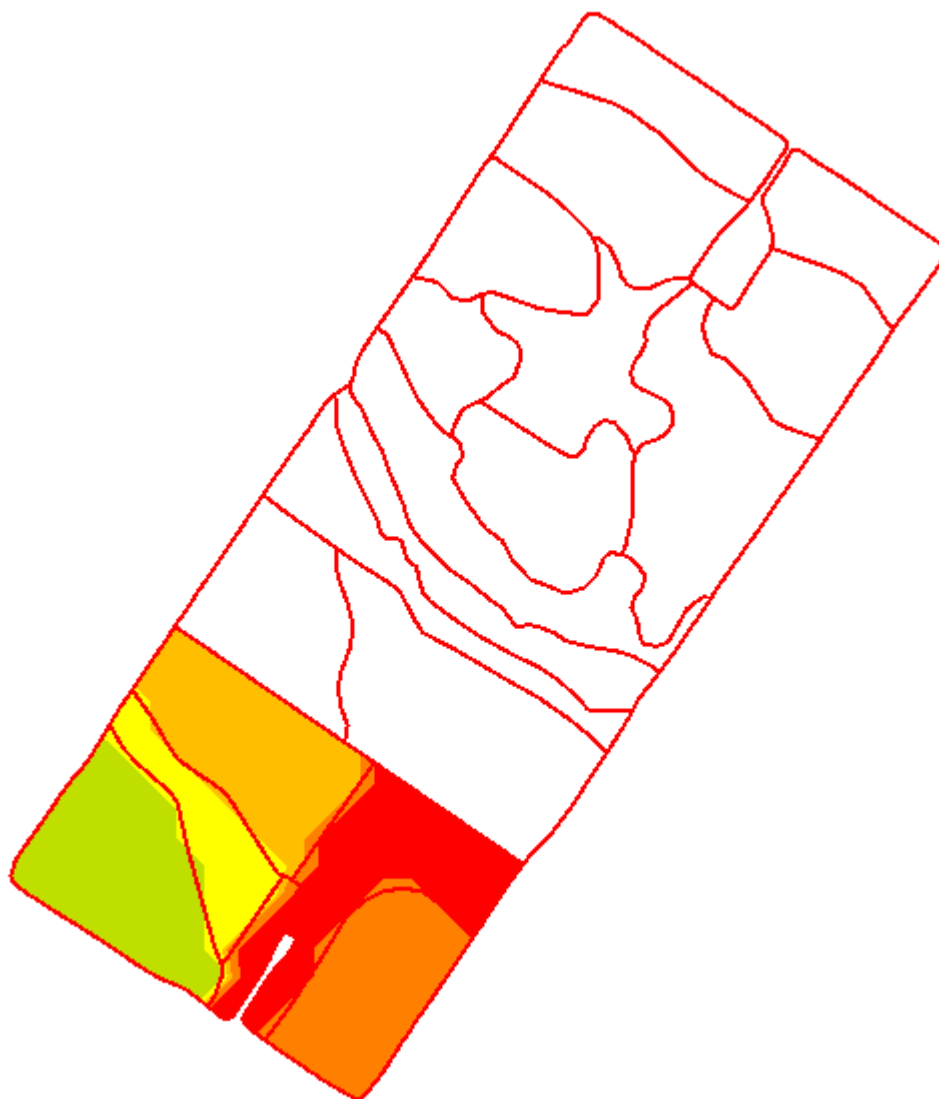


One in = 417 feet
0 188 377 565 753 942

Season: 2015
Min Rate: 60.00 lb/ac
Avg Rate: 74.91 lb/ac
Max Rate: 105.00 lb/ac
Total Product: 998.26 lb
Applied Area: 13.33 ac
Product: 11-52-0 MAP
Order Id: 496109
Order Task Id: 13304380
Crop - Year 1: Soybeans
Purpose - Year 1: Dry Grain
Yield Goal - Year 1: 60

—	Management Zone Boundary
—	Field Boundary
MAP Recommendation lb/ac	
■	60 (8.5 ac) (18.1 %)
■	95 (1.7 ac) (3.6 %)
■	105 (3.1 ac) (6.6 %)

Potash Recommendation



Grower: Hat Trick Farms Inc
Farm: Home Farm
Field: Field 2
Area: 13.33 ac



One in = 416 feet
0 188 376 565 753 941

Season: 2015
Min Rate: 100.00 lb/ac
Avg Rate: 208.64 lb/ac
Max Rate: 300.00 lb/ac
Total Product: 2,780.47 lb
Applied Area: 13.33 ac
Product: 0-0-60
Order Id: 496109
Order Task Id: 13304381
Crop - Year 1: Soybeans
Purpose - Year 1: Dry Grain
Yield Goal - Year 1: 60

—	Management Zone Boundary
—	Field Boundary
Potash Recommendation lb/ac	
■	100 (3.0 ac) (6.3 %)
■	190 (2.6 ac) (5.5 %)
■	215 (3.0 ac) (6.3 %)
■	250 (1.7 ac) (3.6 %)
■	300 (3.1 ac) (6.6 %)

WARRINERAG

A Division of Hat Trick Farms Inc.



Hat Trick Farms Inc

Home Farm

Field 1

Area: 68.79 ac

Home Farm



Date: 4/26/2018
Farm: Home Farm
Grower: Hat Trick Farms Inc
Area: 116.05 ac



One in = 619 feet
0 208 415 623 830 1038

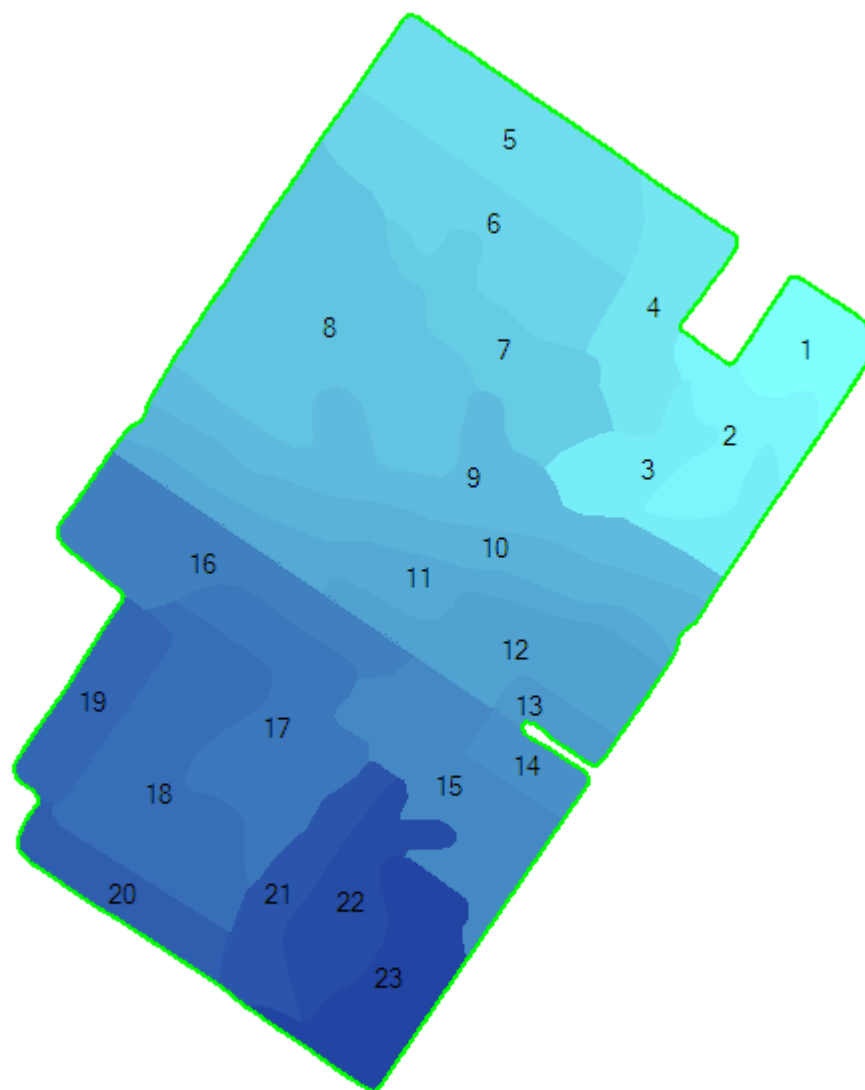


Home Farm

(116.05 ac)

Soil Test Zones

Grower: Hat Trick Farms Inc
Farm: Home Farm
Field: Field 1
Area: 68.79 ac



Field Boundary	
Soil Test Zones	
1 (1.7 ac) (2.4 %)	
2 (2.0 ac) (2.9 %)	
3 (2.5 ac) (3.6 %)	
4 (2.6 ac) (3.8 %)	
5 (4.0 ac) (5.9 %)	
6 (3.9 ac) (5.7 %)	
7 (2.9 ac) (4.3 %)	
8 (7.3 ac) (10.6 %)	
9 (4.6 ac) (6.7 %)	
10 (3.6 ac) (5.3 %)	
11 (2.6 ac) (3.8 %)	
12 (3.1 ac) (4.5 %)	
13 (0.7 ac) (1.0 %)	
14 (0.8 ac) (1.2 %)	
15 (3.8 ac) (5.5 %)	
16 (3.5 ac) (5.1 %)	
17 (3.7 ac) (5.4 %)	
18 (4.8 ac) (7.0 %)	
19 (1.9 ac) (2.7 %)	
20 (1.7 ac) (2.4 %)	
21 (2.0 ac) (2.9 %)	
22 (2.2 ac) (3.1 %)	
23 (2.8 ac) (4.1 %)	



One in = 474 feet
0 222 444 667 889 1111

pH



Grower: Hat Trick Farms
Inc
Farm: Home Farm
Field: Field 1
Area: 68.79 ac

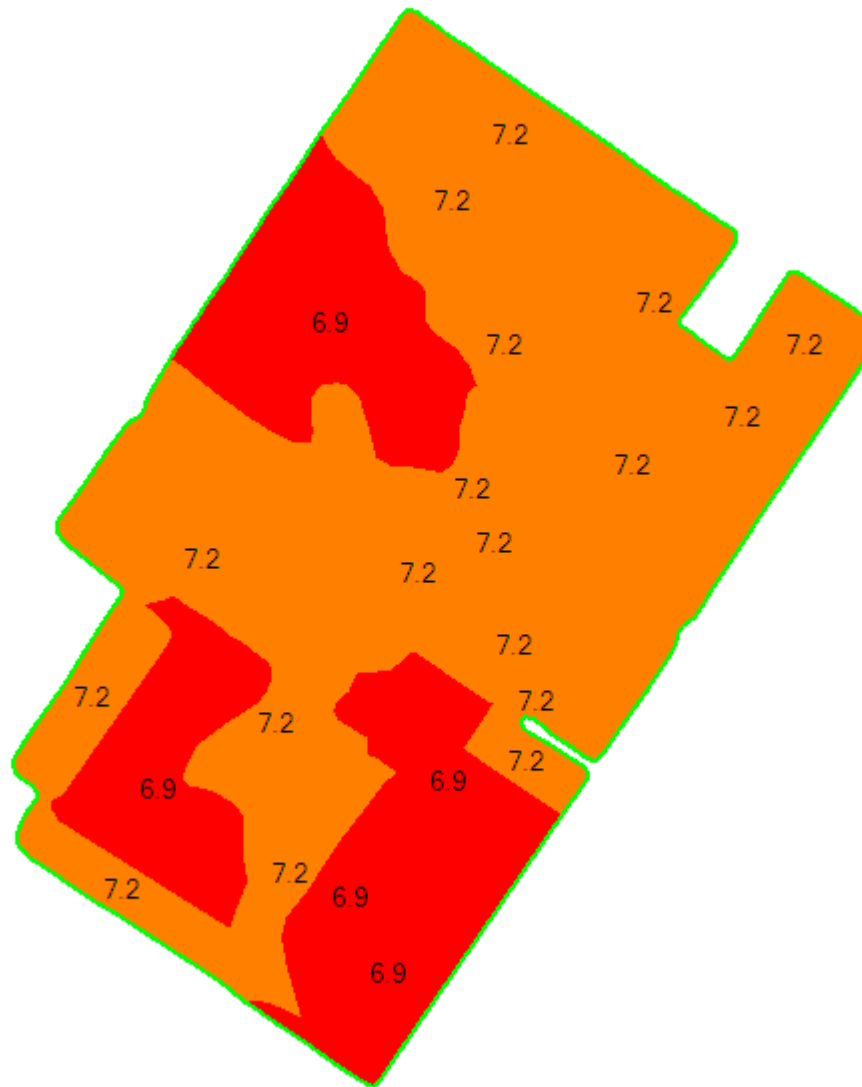
Min: 5.80
Avg: 7.20
Max: 7.60



One in = 474 feet
0 214 429 643 857 1072

Field Boundary
pH
5.8 (2.2 ac) (3.1 %)
6.7 - 6.9 (18.7 ac) (27.2 %)
7 (7.6 ac) (11.1 %)
7.2 (8.0 ac) (11.6 %)
7.4 (4.9 ac) (7.1 %)
7.5 (24.2 ac) (35.2 %)
7.6 (3.2 ac) (4.7 %)

BpH



Grower: Hat Trick Farms
Inc
Farm: Home Farm
Field: Field 1
Area: 68.79 ac

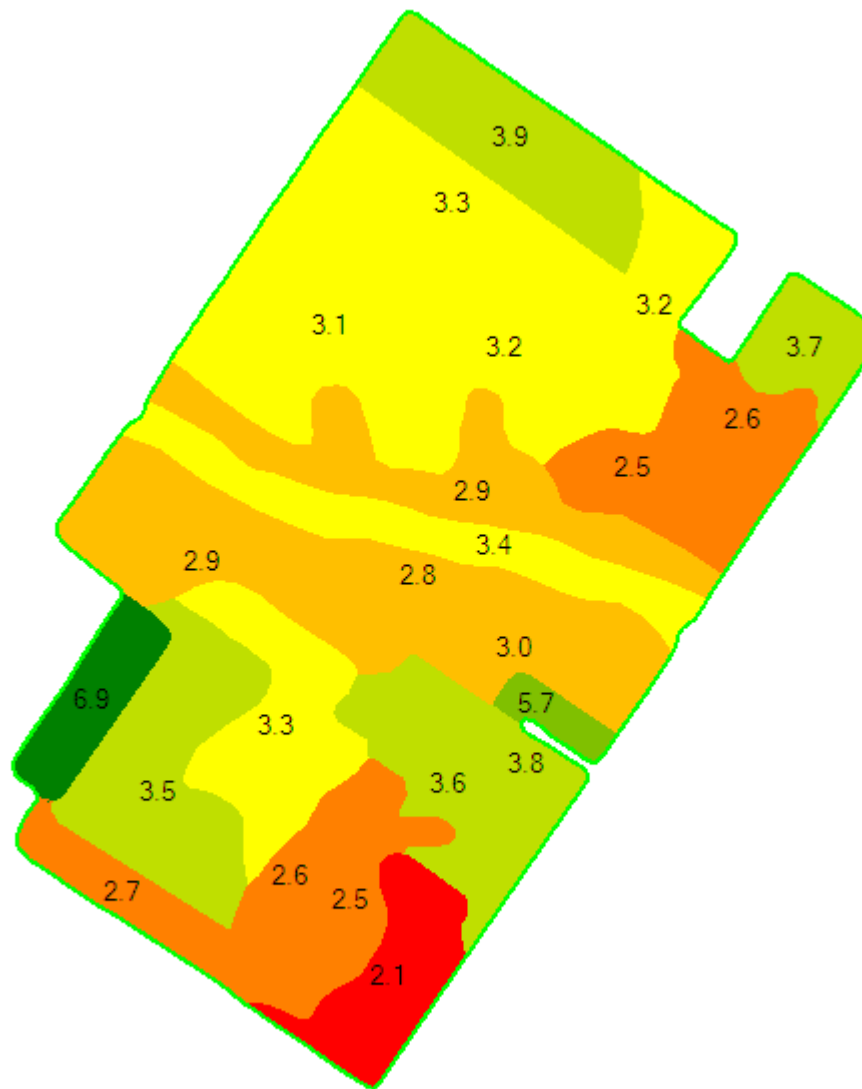
Min: 6.90
Avg: 7.13
Max: 7.20



One in = 474 feet
0 214 429 643 857 1072

—	Field Boundary
BpH	
■	6.9 (20.9 ac) (30.4 %)
■	7.2 (47.9 ac) (69.6 %)

OM



Grower: Hat Trick Farms
Inc
Farm: Home Farm
Field: Field 1
Area: 68.79 ac

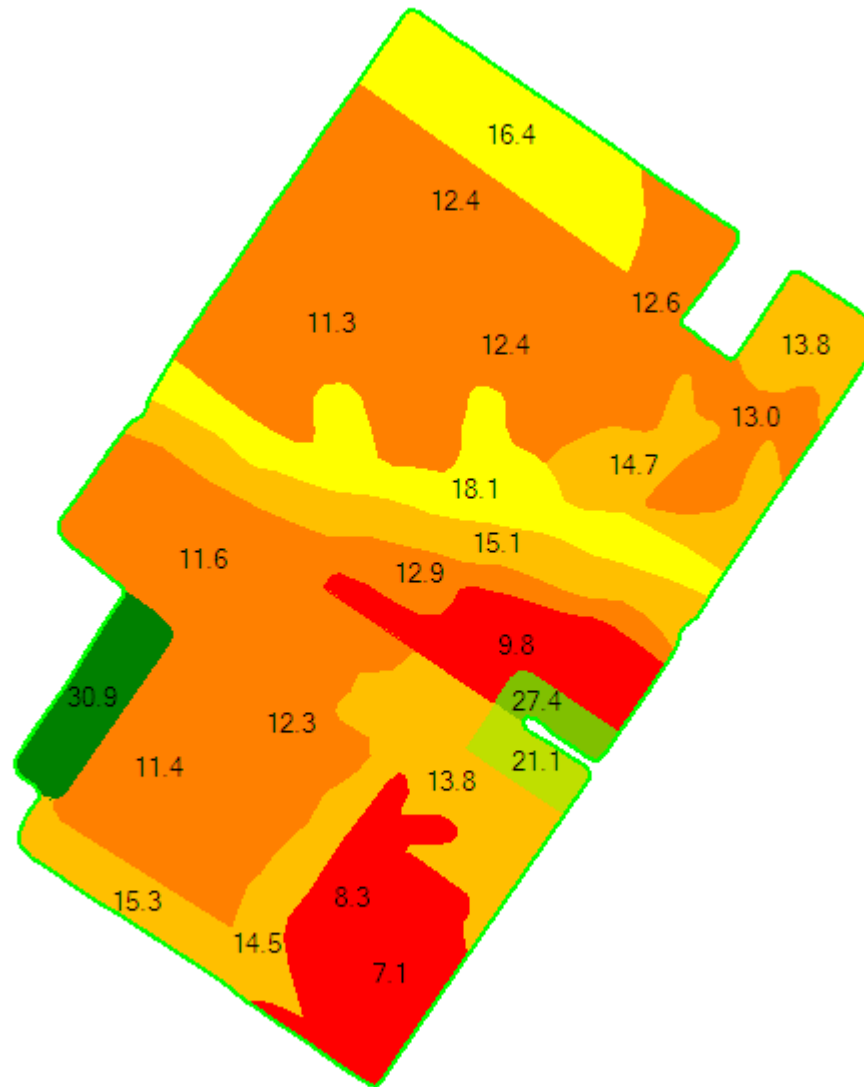
Min: 2.10
Avg: 3.36
Max: 6.90



One in = 474 feet
0 214 429 643 857 1072

—	Field Boundary
OM	
■	2.1 (2.8 ac) (4.1 %)
■	2.5 - 2.7 (10.3 ac) (15.0 %)
■	2.8 - 3 (13.8 ac) (20.1 %)
■	3.1 - 3.4 (24.1 ac) (35.0 %)
■	3.5 - 3.9 (15.2 ac) (22.0 %)
■	5.7 (0.7 ac) (1.0 %)
■	6.9 (1.9 ac) (2.7 %)

CEC



Grower: Hat Trick Farms
Inc
Farm: Home Farm
Field: Field 1
Area: 68.79 ac

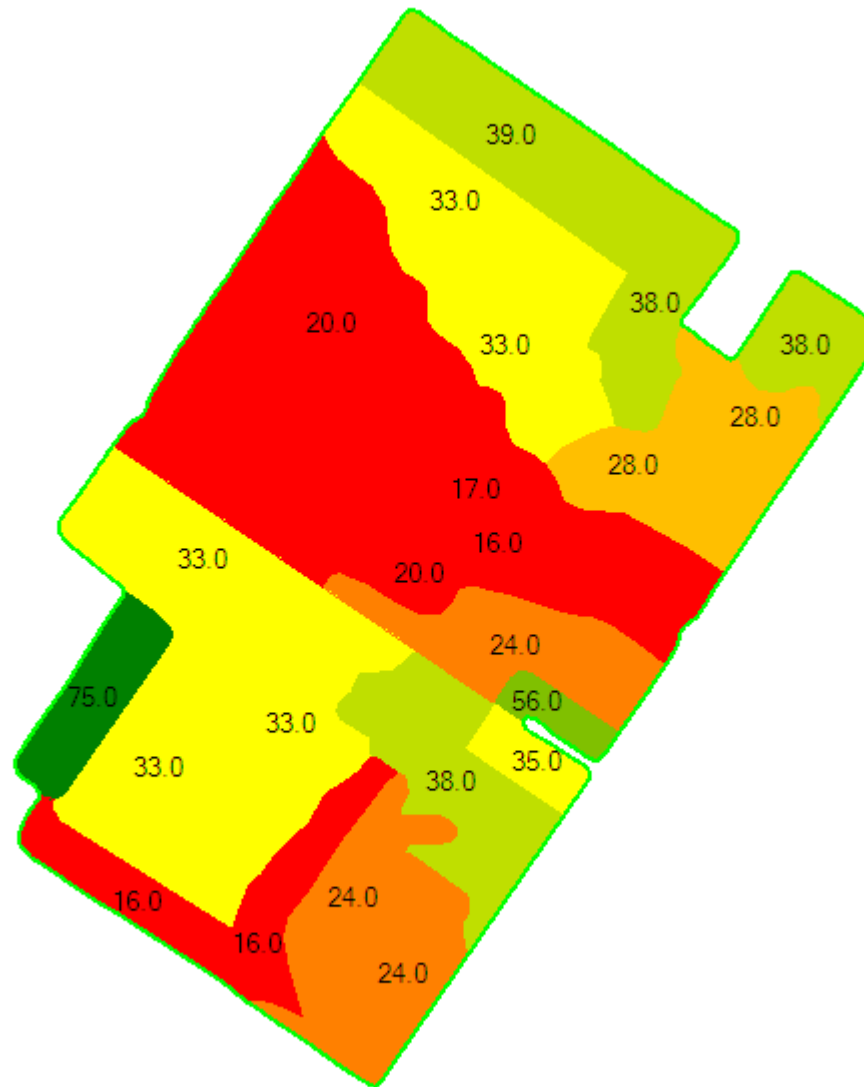
Min: 7.10
Avg: 14.62
Max: 30.90



One in = 474 feet
0 214 429 643 857 1072

Field Boundary
CEC
7.1 - 9.8 (8.1 ac) (11.8 %)
11.3 - 13 (33.4 ac) (48.6 %)
13.8 - 15.3 (15.2 ac) (22.0 %)
16.4 - 18.1 (8.7 ac) (12.6 %)
21.1 (0.8 ac) (1.2 %)
27.4 (0.7 ac) (1.0 %)
30.9 (1.9 ac) (2.7 %)

P Bicarb



Grower: Hat Trick Farms
Inc
Farm: Home Farm
Field: Field 1
Area: 68.79 ac

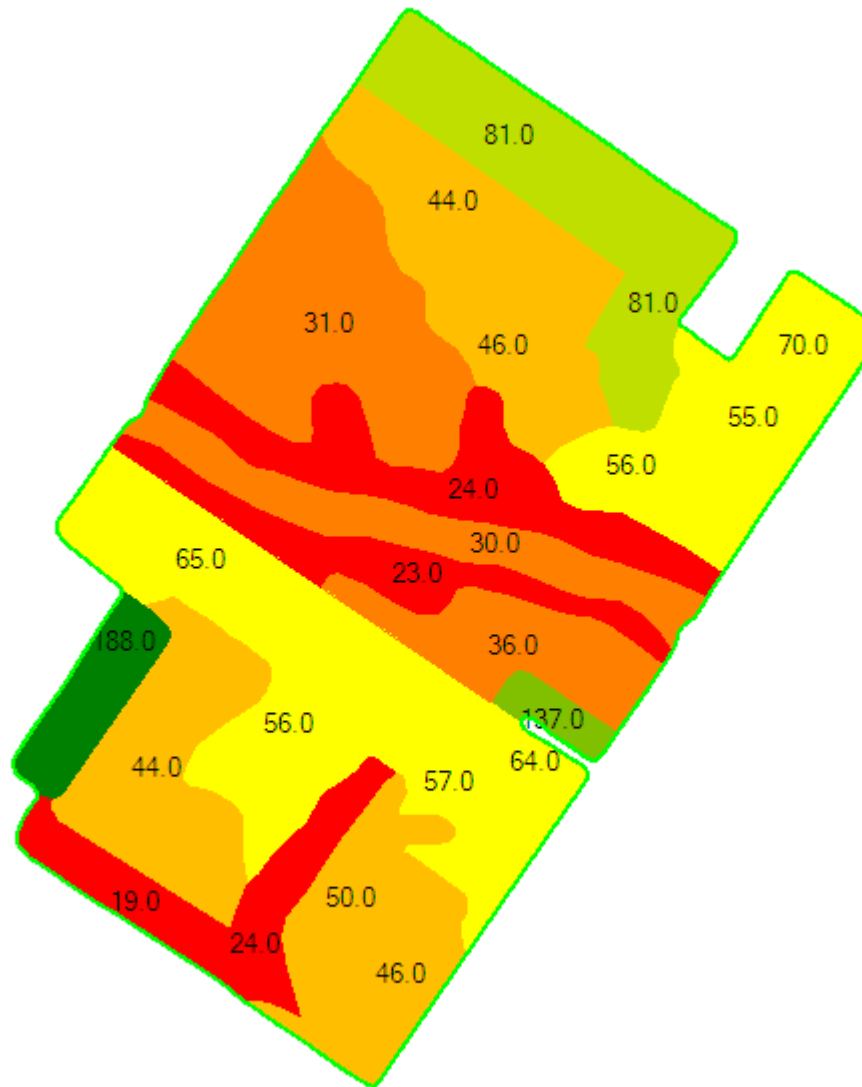
Min: 16.00
Avg: 31.17
Max: 75.00



One in = 474 feet
0 214 429 643 857 1072

Field Boundary	
P Bicarb	
16 - 20 (21.8 ac) (31.7 %)	
24 (8.1 ac) (11.8 %)	
28 (4.5 ac) (6.5 %)	
33 - 35 (19.8 ac) (28.7 %)	
38 - 39 (12.1 ac) (17.6 %)	
56 (0.7 ac) (1.0 %)	
75 (1.9 ac) (2.7 %)	

P Bray 1



Grower: Hat Trick Farms
Inc
Farm: Home Farm
Field: Field 1
Area: 68.79 ac

Min: 19.00
Avg: 57.70
Max: 188.00

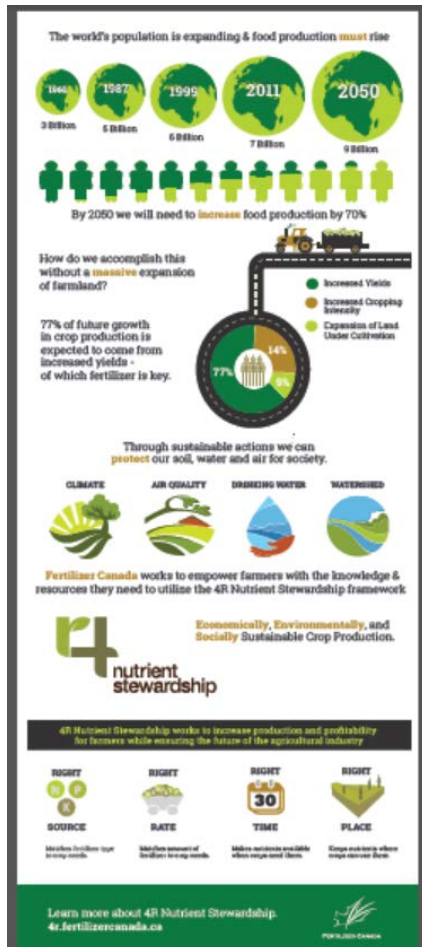


One in = 474 feet
0 214 429 643 857 1072

Field Boundary
P Bray 1
19 - 24 (10.9 ac) (15.8 %)
30 - 36 (14.0 ac) (20.4 %)
44 - 50 (16.6 ac) (24.2 %)
55 - 70 (18.0 ac) (26.2 %)
81 (6.7 ac) (9.7 %)
137 (0.7 ac) (1.0 %)
188 (1.9 ac) (2.7 %)

- Reducing greenhouse gas emissions by up to 75 per cent by combining the use of urea-ammonium nitrate (UAN) with nitrification inhibitors at the eighth-leaf growing stage of corn;
- Increasing corn yields by as much as 20 per cent and eliminating harmful ammonia loss to soil by combining injection placement with UAN fertilizer, compared to broadcasting;
- Reducing phosphorus runoff by 60 per cent by subsurface banding instead of broadcasting.

Sustainable farming is the future. In many cases, that future is already underway. Let's demonstrate how we are leaders in sustainable agriculture.



Made possible through
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The 4R Certification standards were created by the 4R Ontario Steering Committee in close collaboration with the Nutrient Stewardship Council, the 4R Agri Business Association and the Fertilizer Institute in the U.S. to ensure alignment between crop sector efforts to implement 4R Nutrient Stewardship and minimize nutrient losses under the 4R Certification Program. The standards are reflective of the best available science, technology and regulatory requirements for Ontario conditions.

Members of the 4R Ontario Steering Committee represent a diversity of stakeholders including Fertilizer Canada, the Ontario Ministry of Agriculture, Food and Rural Affairs (OMAFRA), the Ontario Agri Business Association (OABA), the 4R Agri Business Association, the Ontario Federation of Agriculture, the Ontario Farmers' Federation of Ontario, Conservation Ontario, The Nature Conservancy - Office, the Ministry of the Environment and Climate Change, the International Plant Nutrition Institute, the Ontario Certified Crop Advisor Board, and Ontario agri-business.



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FERTILIZER CANADA

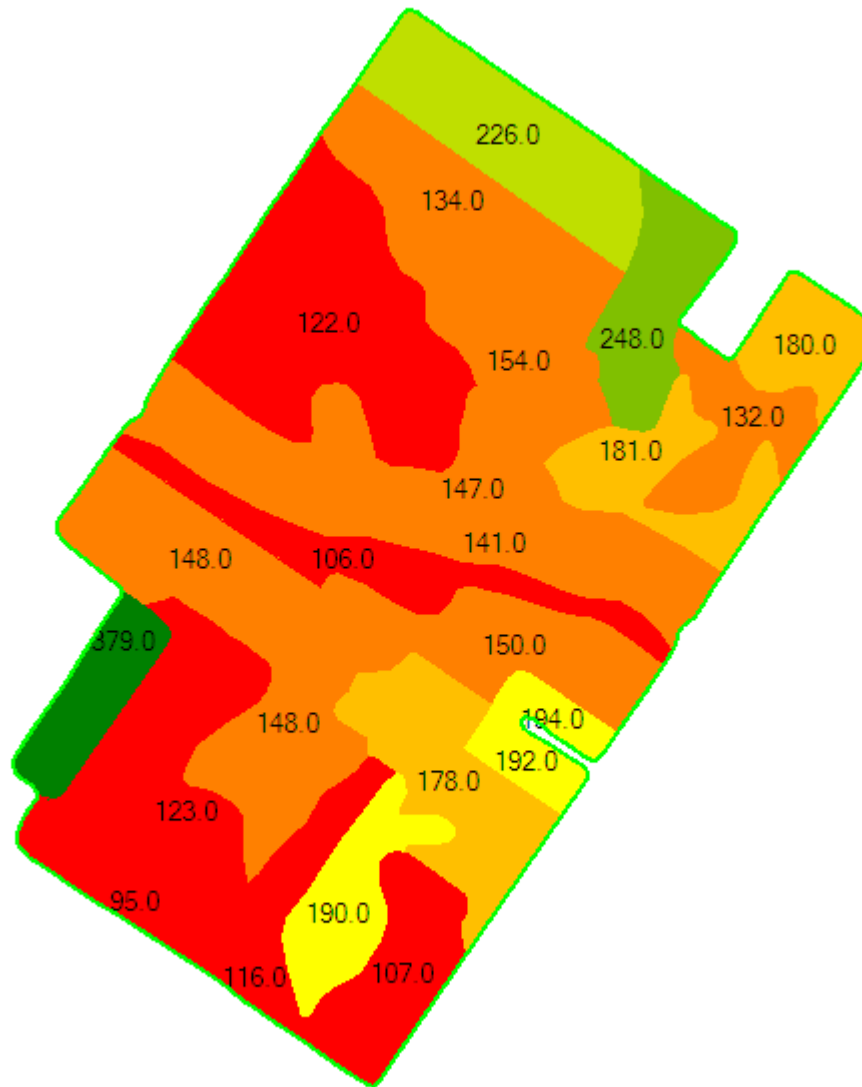
Program administered by
Fertilizer Canada on behalf of the
4R Ontario Steering Committee



4R Nutrient Stewardship
Certification Program
in Ontario

Voluntary program for Ontario agri-refusers
and nutrient service providers implementing
4R Nutrient Stewardship

K



Grower: Hat Trick Farms
Inc
Farm: Home Farm
Field: Field 1
Area: 68.79 ac

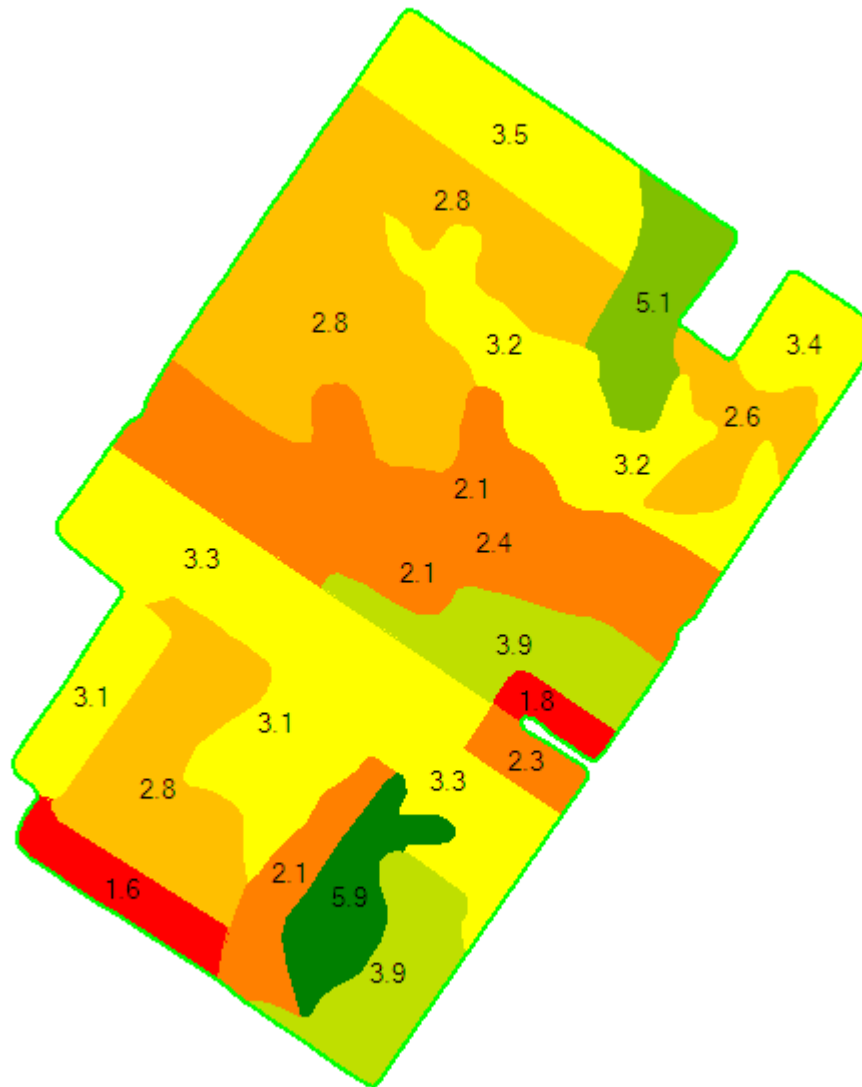
Min: 95.00
Avg: 164.83
Max: 379.00



One in = 474 feet
0 214 429 643 857 1072

Field Boundary	
K	
95 - 123 (21.2 ac) (30.8 %)	
132 - 154 (27.5 ac) (39.9 %)	
178 - 181 (7.9 ac) (11.5 %)	
190 - 194 (3.7 ac) (5.4 %)	
226 (4.0 ac) (5.9 %)	
248 (2.6 ac) (3.8 %)	
379 (1.9 ac) (2.7 %)	

K%



Grower: Hat Trick Farms
Inc
Farm: Home Farm
Field: Field 1
Area: 68.79 ac

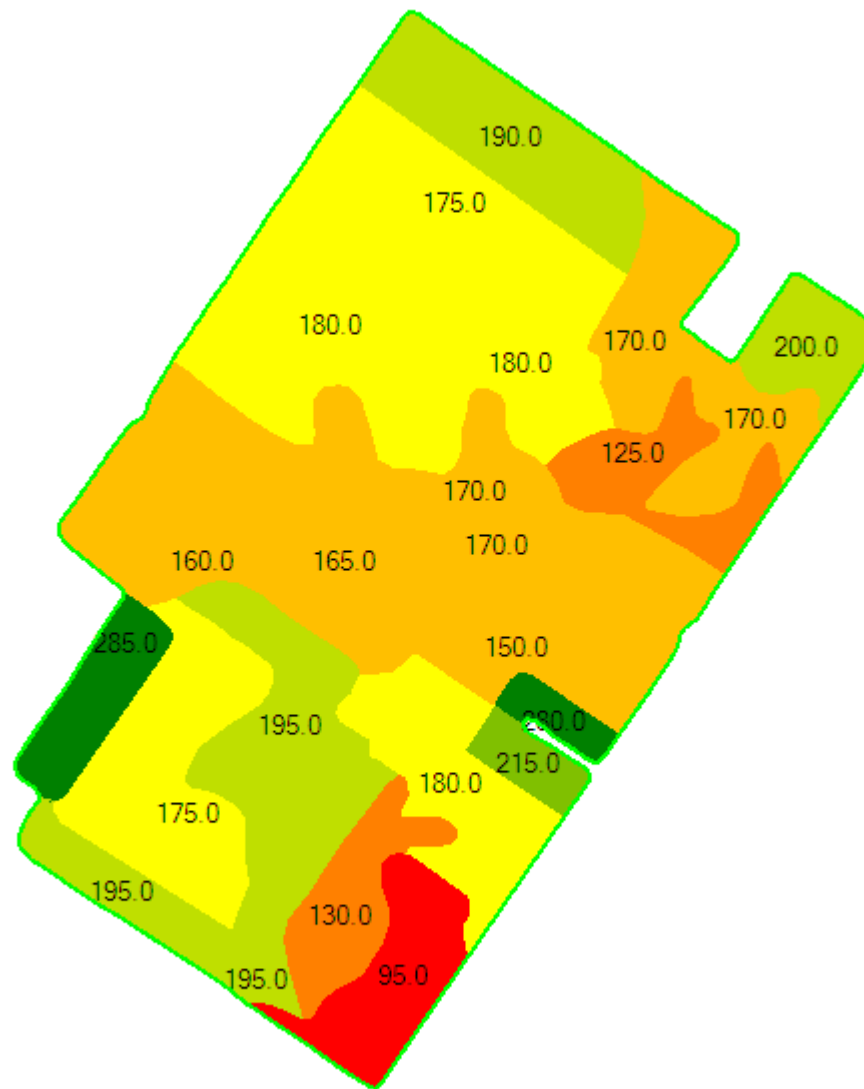
Min: 1.60
Avg: 3.06
Max: 5.90



One in = 474 feet
0 214 429 643 857 1072

Field Boundary	
K%	
1.6 - 1.8 (2.4 ac) (3.4 %)	
2.1 - 2.4 (13.7 ac) (19.9 %)	
2.6 - 2.8 (18.1 ac) (26.2 %)	
3.1 - 3.5 (24.0 ac) (34.9 %)	
3.9 (5.9 ac) (8.6 %)	
5.1 (2.6 ac) (3.8 %)	
5.9 (2.2 ac) (3.1 %)	

Mg



Grower: Hat Trick Farms
Inc
Farm: Home Farm
Field: Field 1
Area: 68.79 ac

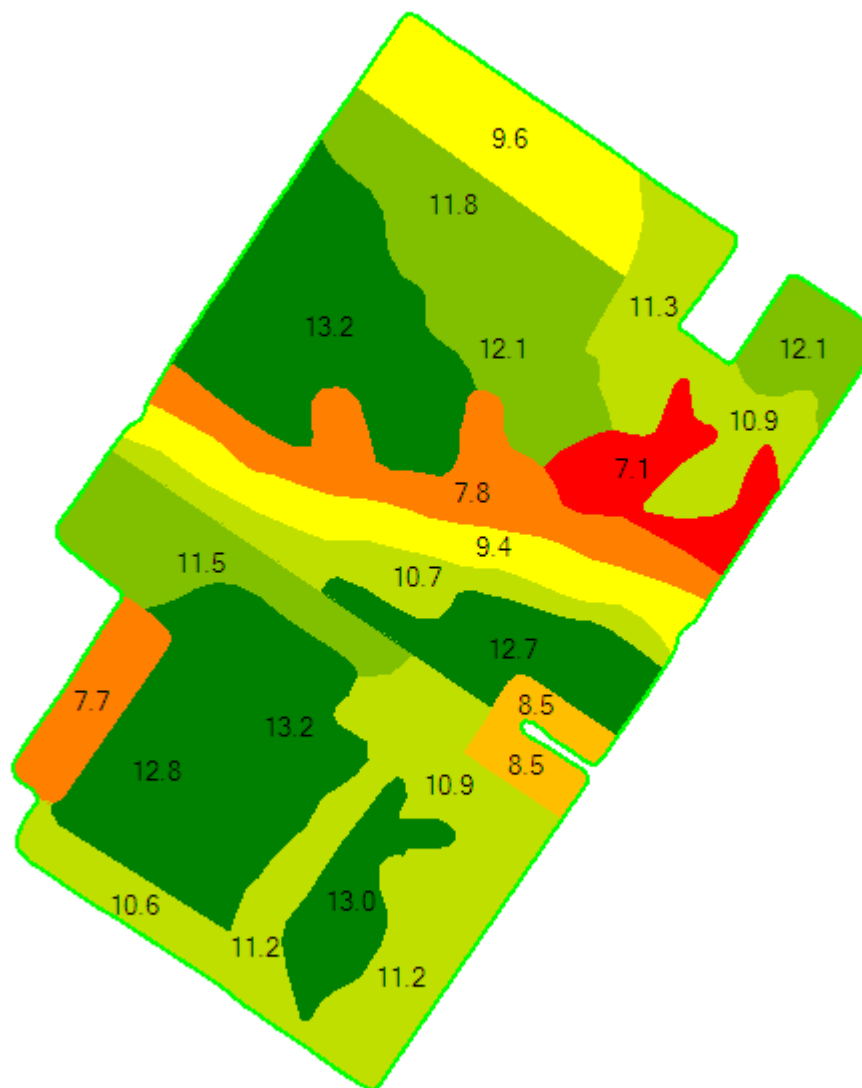
Min: 95.00
Avg: 180.43
Max: 285.00



One in = 474 feet
0 214 429 643 857 1072

—	Field Boundary
Mg	
■	95 (2.8 ac) (4.1 %)
■	125 - 130 (4.6 ac) (6.7 %)
■	150 - 170 (22.1 ac) (32.1 %)
■	175 - 180 (22.7 ac) (33.0 %)
■	190 - 200 (13.1 ac) (19.0 %)
■	215 (0.8 ac) (1.2 %)
■	280 - 285 (2.6 ac) (3.8 %)

Mg %



Grower: Hat Trick Farms
Inc
Farm: Home Farm
Field: Field 1
Area: 68.79 ac

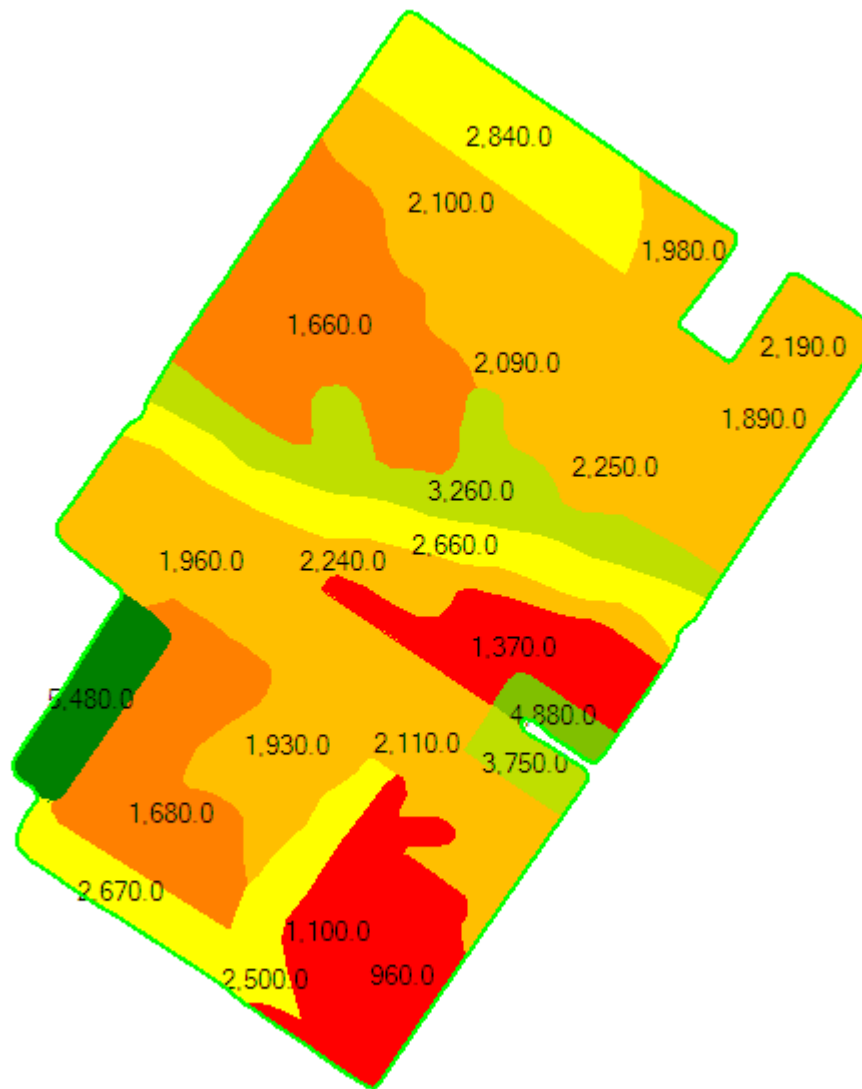
Min: 7.10
Avg: 10.77
Max: 13.20



One in = 474 feet
0 214 429 643 857 1072

Field Boundary	
Mg %	
7.1 (2.5 ac) (3.6 %)	
7.7 - 7.8 (6.5 ac) (9.5 %)	
8.5 (1.5 ac) (2.2 %)	
9.4 - 9.6 (7.7 ac) (11.2 %)	
10.6 - 11.3 (17.5 ac) (25.4 %)	
11.5 - 12.1 (12.0 ac) (17.4 %)	
12.7 - 13.2 (21.1 ac) (30.7 %)	

Ca



Grower: Hat Trick Farms
Inc
Farm: Home Farm
Field: Field 1
Area: 68.79 ac

Min: 960.00
Avg: 2,415.22
Max: 5,480.00



One in = 474 feet
0 214 429 643 857 1072

Field Boundary	
Ca	
960 - 1370 (8.1 ac) (11.8 %)	
1660 - 1680 (12.1 ac) (17.6 %)	
1890 - 2250 (29.2 ac) (42.4 %)	
2500 - 2840 (11.3 ac) (16.4 %)	
3260 - 3750 (5.5 ac) (8.0 %)	
4880 (0.7 ac) (1.0 %)	
5480 (1.9 ac) (2.7 %)	

Ca %



Grower: Hat Trick Farms
Inc
Farm: Home Farm
Field: Field 1
Area: 68.79 ac

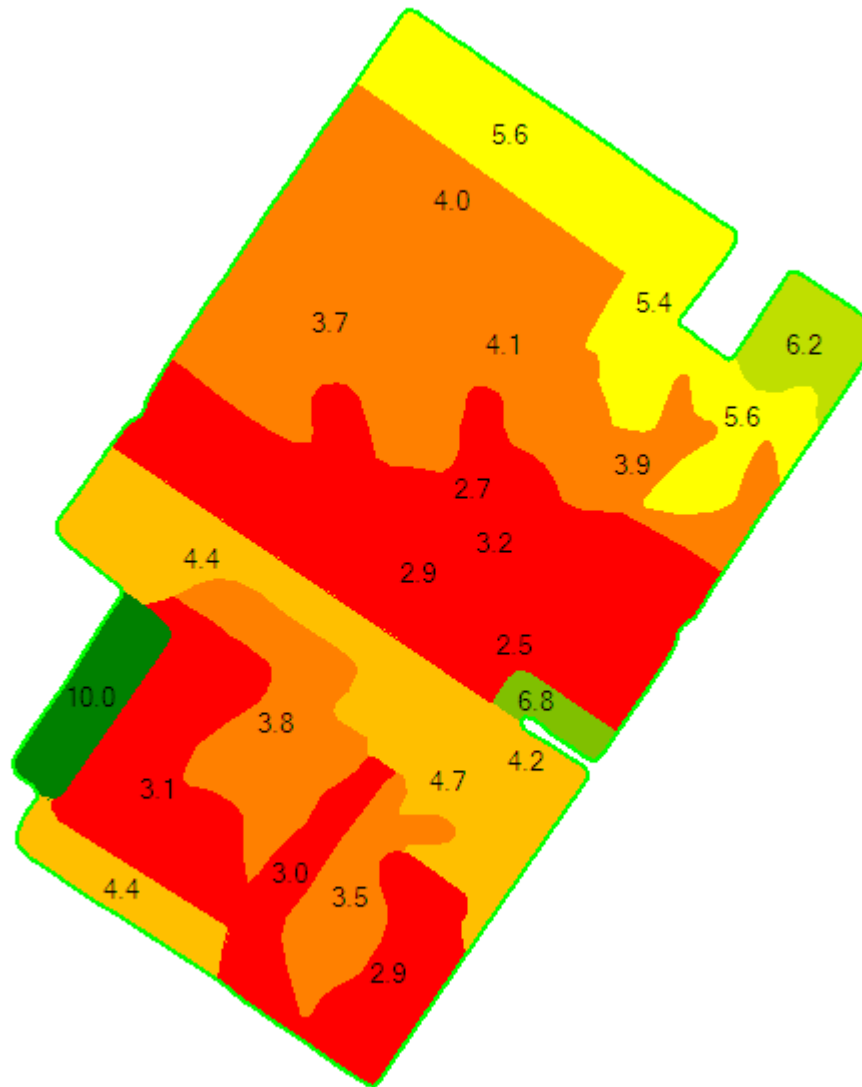
Min: 66.20
Avg: 80.83
Max: 89.90



One in = 474 feet
0 214 429 643 857 1072

Field Boundary	
Ca %	
66.2 - 67.6 (5.0 ac) (7.2 %)	
69.8 (3.1 ac) (4.5 %)	
72.9 - 73.7 (14.2 ac) (20.6 %)	
76.4 - 76.7 (6.2 ac) (9.1 %)	
78.6 - 79.5 (8.0 ac) (11.6 %)	
84.3 - 84.9 (10.3 ac) (15.0 %)	
86.5 - 89.9 (22.0 ac) (31.9 %)	

Zn



Grower: Hat Trick Farms
Inc
Farm: Home Farm
Field: Field 1
Area: 68.79 ac

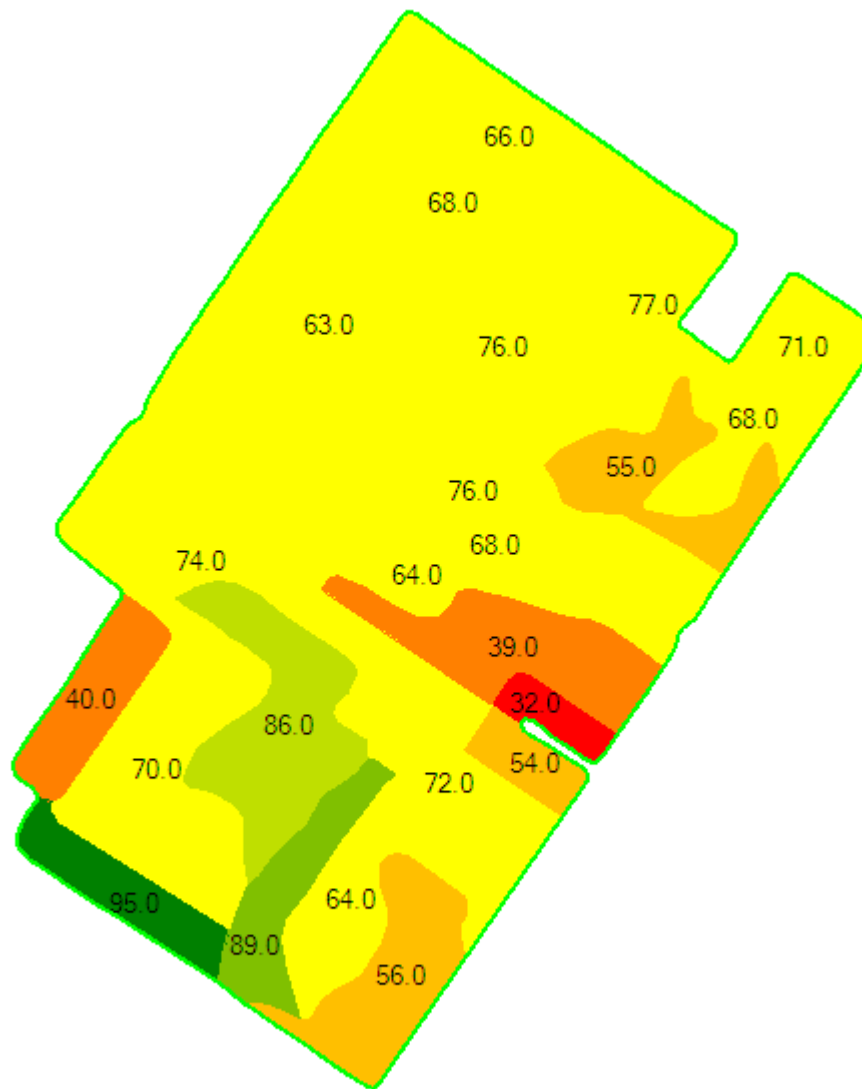
Min: 2.50
Avg: 4.37
Max: 10.00



One in = 474 feet
0 214 429 643 857 1072

Field Boundary
Zn
2.5 - 3.2 (23.6 ac) (34.3 %)
3.5 - 4.1 (22.5 ac) (32.7 %)
4.2 - 4.7 (9.8 ac) (14.2 %)
5.4 - 5.6 (8.7 ac) (12.6 %)
6.2 (1.7 ac) (2.4 %)
6.8 (0.7 ac) (1.0 %)
10 (1.9 ac) (2.7 %)

Mn



Grower: Hat Trick Farms
Inc
Farm: Home Farm
Field: Field 1
Area: 68.79 ac

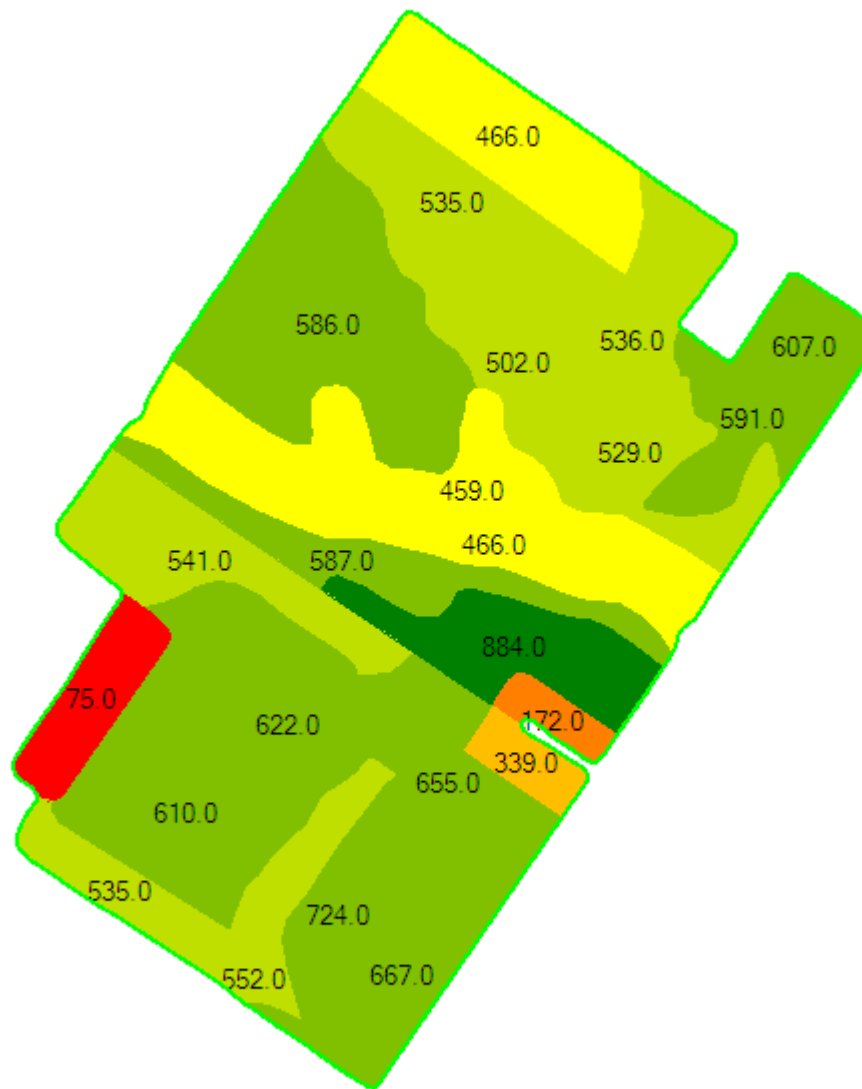
Min: 32.00
Avg: 66.22
Max: 95.00



One in = 474 feet
0 214 429 643 857 1072

Field Boundary
Mn
32 (0.7 ac) (1.0 %)
39 - 40 (5.0 ac) (7.3 %)
54 - 56 (6.2 ac) (9.0 %)
63 - 77 (49.6 ac) (72.1 %)
86 (3.7 ac) (5.4 %)
89 (2.0 ac) (2.9 %)
95 (1.7 ac) (2.4 %)

AI



Grower: Hat Trick Farms
Inc
Farm: Home Farm
Field: Field 1
Area: 68.79 ac

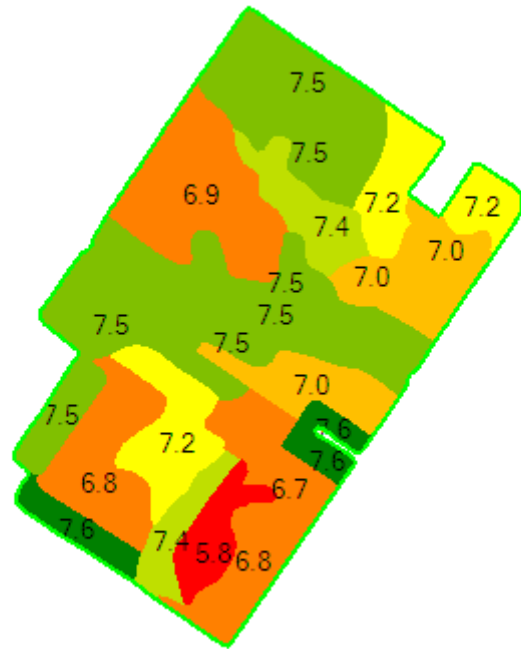
Min: 75.00
Avg: 532.17
Max: 884.00



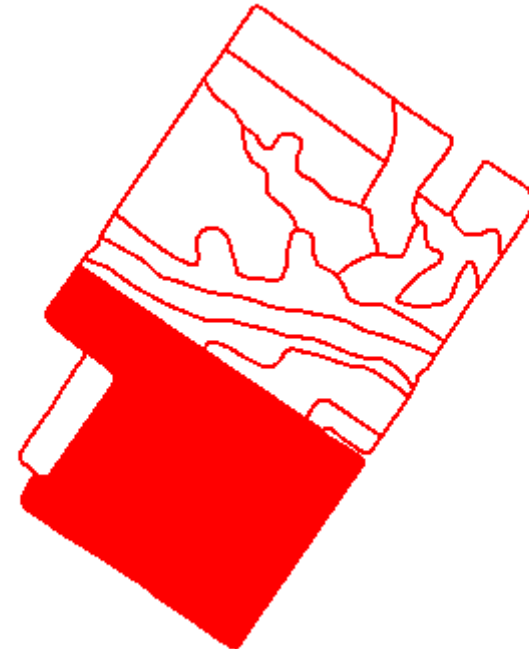
One in = 474 feet
0 214 429 643 857 1072

Field Boundary	
AI	
75 (1.9 ac) (2.7 %)	
172 (0.7 ac) (1.0 %)	
339 (0.8 ac) (1.2 %)	
459 - 466 (12.3 ac) (17.9 %)	
502 - 552 (19.1 ac) (27.7 %)	
586 - 724 (30.9 ac) (44.9 %)	
884 (3.1 ac) (4.5 %)	

pH



Lime Recommendation (2015)



Grower: Hat Trick Farms Inc
Farm: Home Farm
Field: Field 1
Area: 68.79 ac

Min: 5.80
Avg: 7.20
Max: 7.60

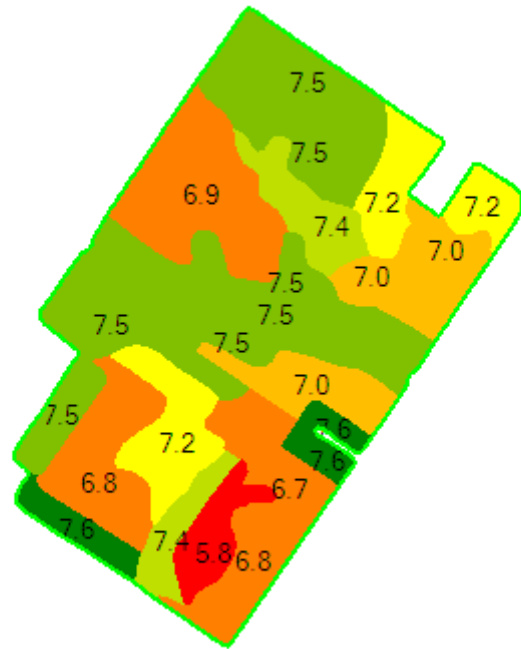
Season: 2015
Min Rate: 0.00 lb/ac
Avg Rate: 0.00 lb/ac
Max Rate: 0.00 lb/ac
Total Nutrient: 0.00 lb
Applied Area: 0.00 ac

Order Id: 478756
Order Task Id: 12793730
Crop - Year 1: Winter Wheat
Purpose - Year 1: Dry Grain

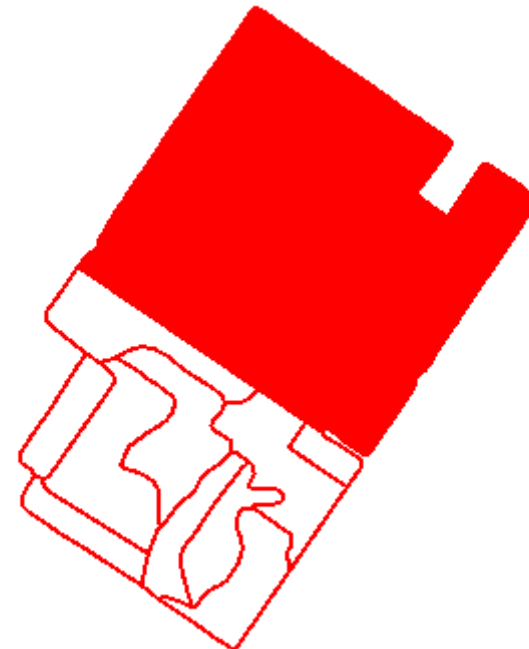
Field Boundary	pH
5.8 (2.2 ac) (3.1 %)	
6.7 - 6.9 (18.7 ac) (27.2 %)	
7 (7.6 ac) (11.1 %)	
7.2 (8.0 ac) (11.6 %)	
7.4 (4.9 ac) (7.1 %)	
7.5 (24.2 ac) (35.2 %)	
7.6 (3.2 ac) (4.7 %)	

Management Zone Boundary	
Field Boundary	
Lime Recommendation lb/ac	
0 (25.3 ac) (36.8 %)	

pH



Lime Recommendation (2015)



Grower: Hat Trick Farms Inc
Farm: Home Farm
Field: Field 1
Area: 68.79 ac

Min: 5.80
Avg: 7.20
Max: 7.60

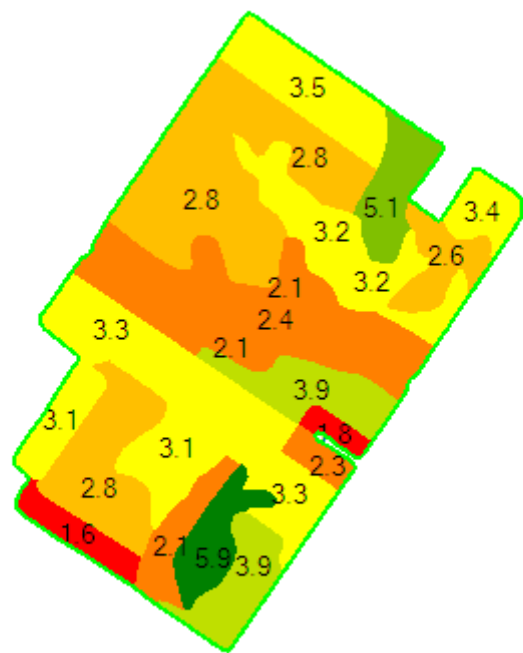
Season: 2015
Min Rate: 0.00 lb/ac
Avg Rate: 0.00 lb/ac
Max Rate: 0.00 lb/ac
Total Nutrient: 0.00 lb
Applied Area: 0.00 ac

Order Id: 478756
Order Task Id: 12793731
Crop - Year 1: Corn
Purpose - Year 1: Dry Grain

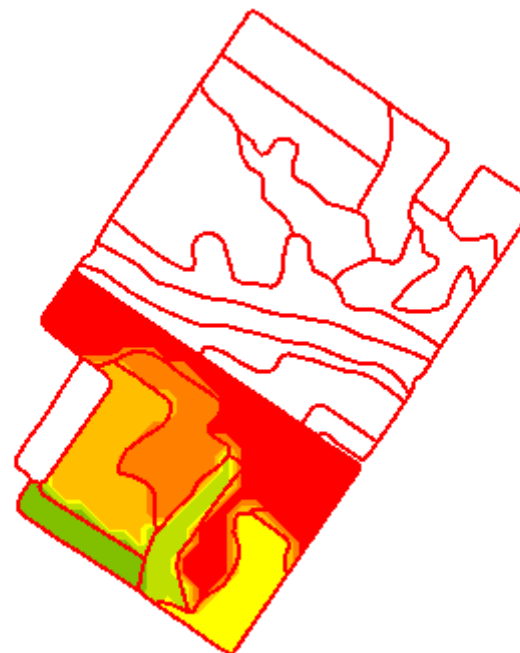
Field Boundary	pH
5.8 (2.2 ac) (3.1 %)	
6.7 - 6.9 (18.7 ac) (27.2 %)	
7 (7.6 ac) (11.1 %)	
7.2 (8.0 ac) (11.6 %)	
7.4 (4.9 ac) (7.1 %)	
7.5 (24.2 ac) (35.2 %)	
7.6 (3.2 ac) (4.7 %)	

Management Zone Boundary	
Field Boundary	
Lime Recommendation lb/ac	
0 (41.6 ac) (60.5 %)	

K%



K2O Recommendation (2015)



Grower: Hat Trick Farms Inc
Farm: Home Farm
Field: Field 1
Area: 68.79 ac

Min: 1.60
Avg: 3.06
Max: 5.90

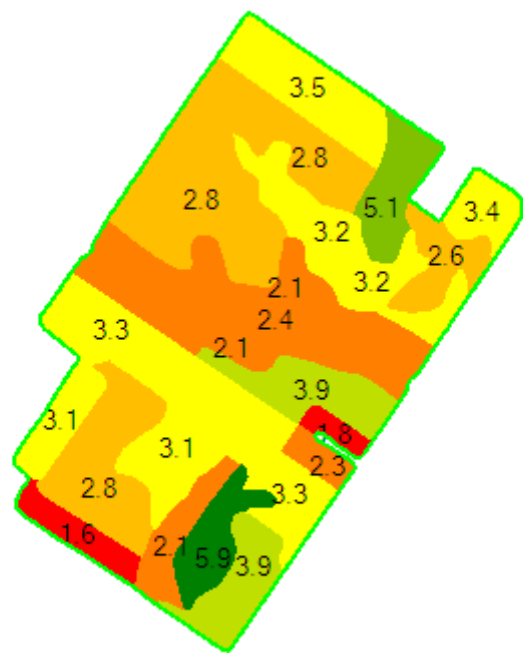
Season: 2015
Min Rate: 35.00 lb/ac
Avg Rate: 71.62 lb/ac
Max Rate: 180.00 lb/ac
Total Nutrient: 1,813.01 lb
Applied Area: 25.32 ac

Order Id: 478756
Order Task Id: 12793748
Crop - Year 1: Winter Wheat
Purpose - Year 1: Dry Grain
Yield Goal - Year 1: 100

Field Boundary	K%
1.6 - 1.8 (2.4 ac) (3.4 %)	
2.1 - 2.4 (13.7 ac) (19.9 %)	
2.6 - 2.8 (18.1 ac) (26.2 %)	
3.1 - 3.5 (24.0 ac) (34.9 %)	
3.9 (5.9 ac) (8.6 %)	
5.1 (2.6 ac) (3.8 %)	
5.9 (2.2 ac) (3.1 %)	

Management Zone Boundary	K2O Recommendation lb/ac
35 (9.8 ac) (14.2 %)	
40 (4.2 ac) (6.1 %)	
90 (4.4 ac) (6.4 %)	
100 (3.1 ac) (4.5 %)	
130 (1.9 ac) (2.7 %)	
180 (2.0 ac) (2.9 %)	

K%



K2O Recommendation (2015)



Grower: Hat Trick Farms Inc
Farm: Home Farm
Field: Field 1
Area: 68.79 ac

Min: 1.60
Avg: 3.06
Max: 5.90

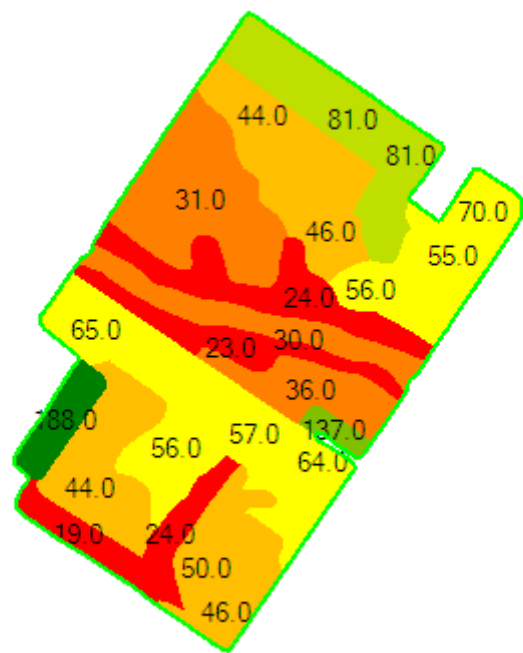
Season: 2015
Min Rate: 50.00 lb/ac
Avg Rate: 154.81 lb/ac
Max Rate: 220.00 lb/ac
Total Nutrient: 6,438.01 lb
Applied Area: 41.59 ac

Order Id: 478756
Order Task Id: 12793749
Crop - Year 1: Corn
Purpose - Year 1: Dry Grain
Yield Goal - Year 1: 200

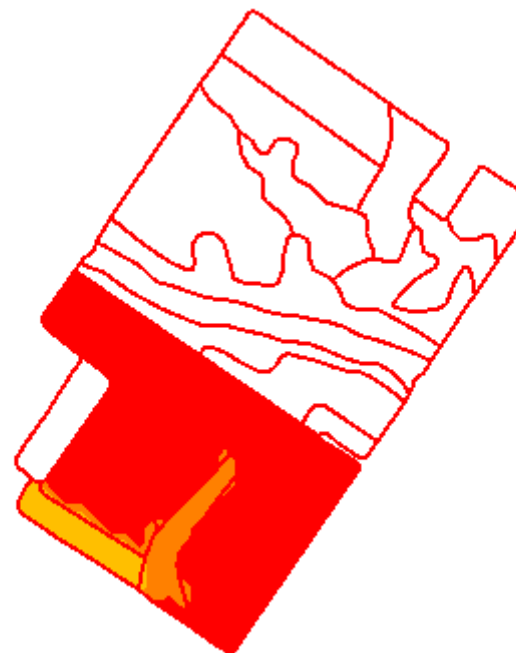
Field Boundary	K%
1.6 - 1.8 (2.4 ac) (3.4 %)	
2.1 - 2.4 (13.7 ac) (19.9 %)	
2.6 - 2.8 (18.1 ac) (26.2 %)	
3.1 - 3.5 (24.0 ac) (34.9 %)	
3.9 (5.9 ac) (8.6 %)	
5.1 (2.6 ac) (3.8 %)	
5.9 (2.2 ac) (3.1 %)	

Management Zone Boundary	K2O Recommendation lb/ac
50 (6.7 ac) (9.7 %)	
85 - 90 (3.9 ac) (5.7 %)	
125 (2.7 ac) (3.9 %)	
135 (2.7 ac) (4.0 %)	
145 (0.9 ac) (1.3 %)	
185 - 205 (21.6 ac) (31.4 %)	
220 (3.1 ac) (4.5 %)	

P Bray 1



P2O5 Recommendation (2015)

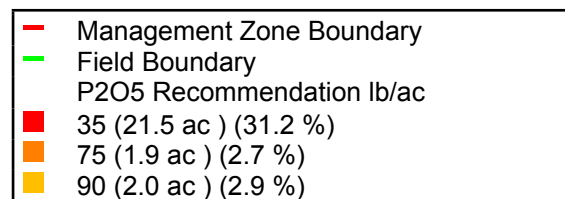
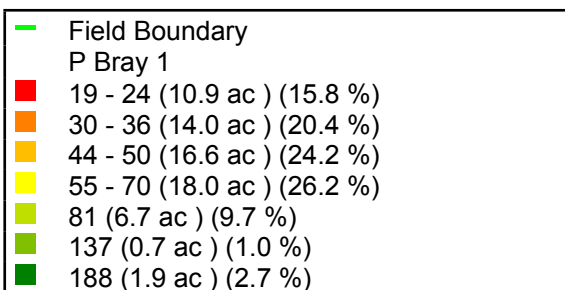


Grower: Hat Trick Farms Inc
Farm: Home Farm
Field: Field 1
Area: 68.79 ac

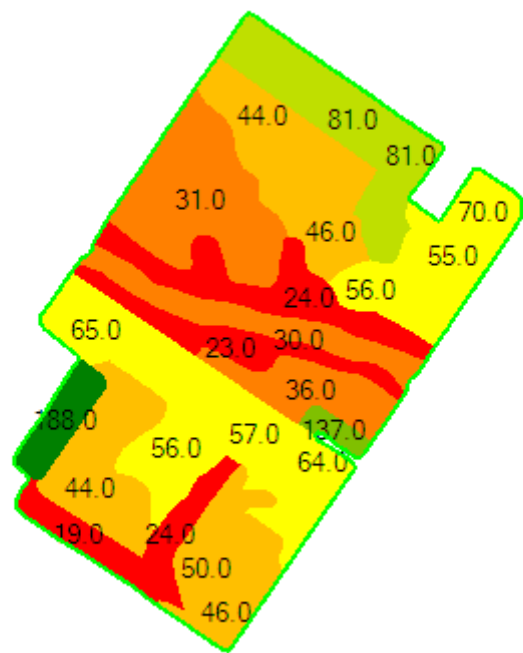
Min: 19.00
Avg: 57.70
Max: 188.00

Season: 2015
Min Rate: 35.00 lb/ac
Avg Rate: 42.24 lb/ac
Max Rate: 90.00 lb/ac
Total Nutrient: 1,069.47 lb
Applied Area: 25.32 ac

Order Id: 478756
Order Task Id: 12793742
Crop - Year 1: Winter Wheat
Purpose - Year 1: Dry Grain
Yield Goal - Year 1: 100



P Bray 1



P2O5 Recommendation (2015)



Grower: Hat Trick Farms Inc
Farm: Home Farm
Field: Field 1
Area: 68.79 ac

Min: 19.00
Avg: 57.70
Max: 188.00

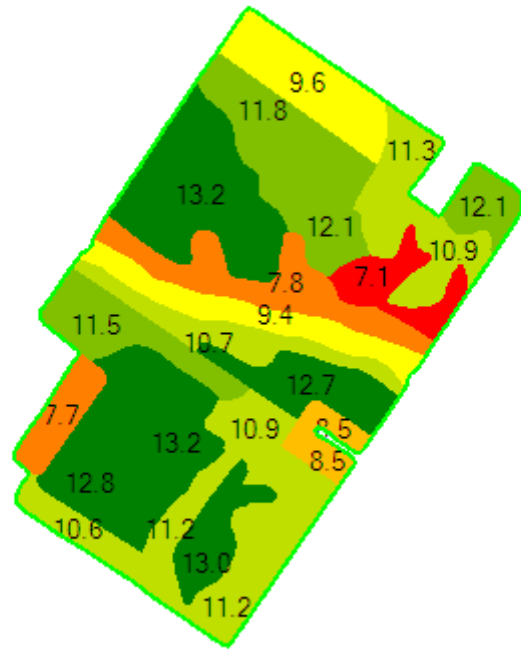
Season: 2015
Min Rate: 40.00 lb/ac
Avg Rate: 56.45 lb/ac
Max Rate: 85.00 lb/ac
Total Nutrient: 2,347.59 lb
Applied Area: 41.59 ac

Order Id: 478756
Order Task Id: 12793743
Crop - Year 1: Corn
Purpose - Year 1: Dry Grain
Yield Goal - Year 1: 200

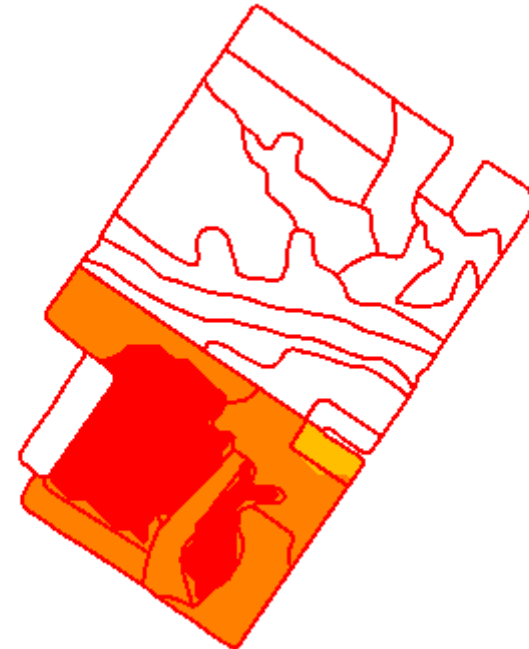
Field Boundary	P Bray 1
19 - 24 (10.9 ac) (15.8 %)	
30 - 36 (14.0 ac) (20.4 %)	
44 - 50 (16.6 ac) (24.2 %)	
55 - 70 (18.0 ac) (26.2 %)	
81 (6.7 ac) (9.7 %)	
137 (0.7 ac) (1.0 %)	
188 (1.9 ac) (2.7 %)	

Management Zone Boundary	P2O5 Recommendation lb/ac
40 (20.2 ac) (29.3 %)	
55 (2.7 ac) (3.9 %)	
65 (7.3 ac) (10.6 %)	
70 (3.6 ac) (5.2 %)	
85 (7.9 ac) (11.4 %)	

Mg %



Mg Recommendation (2015)



Grower: Hat Trick Farms Inc
Farm: Home Farm
Field: Field 1
Area: 68.79 ac

Min: 7.10
Avg: 10.77
Max: 13.20

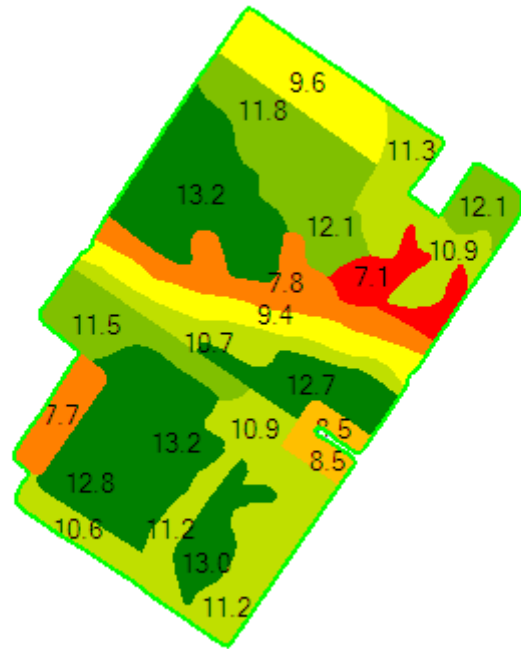
Season: 2015
Min Rate: 10.00 lb/ac
Avg Rate: 13.05 lb/ac
Max Rate: 20.00 lb/ac
Total Nutrient: 330.38 lb
Applied Area: 25.32 ac

Order Id: 478756
Order Task Id: 12793760
Crop - Year 1: Winter Wheat
Purpose - Year 1: Dry Grain

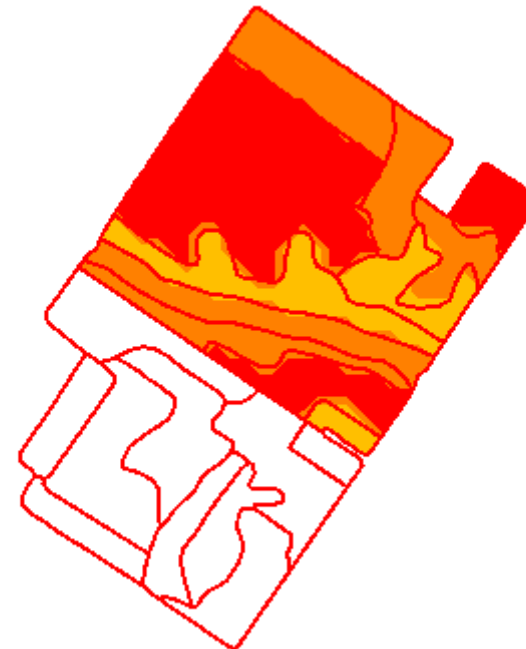
—	Field Boundary
■	Mg %
■	7.1 (2.5 ac) (3.6 %)
■	7.7 - 7.8 (6.5 ac) (9.5 %)
■	8.5 (1.5 ac) (2.2 %)
■	9.4 - 9.6 (7.7 ac) (11.2 %)
■	10.6 - 11.3 (17.5 ac) (25.4 %)
■	11.5 - 12.1 (12.0 ac) (17.4 %)
■	12.7 - 13.2 (21.1 ac) (30.7 %)

—	Management Zone Boundary
—	Field Boundary
■	Mg Recommendation lb/ac
■	10 (10.7 ac) (15.5 %)
■	15 (13.8 ac) (20.1 %)
■	20 (0.8 ac) (1.2 %)

Mg %



Mg Recommendation (2015)



Grower: Hat Trick Farms Inc
Farm: Home Farm
Field: Field 1
Area: 68.79 ac

Min: 7.10
Avg: 10.77
Max: 13.20

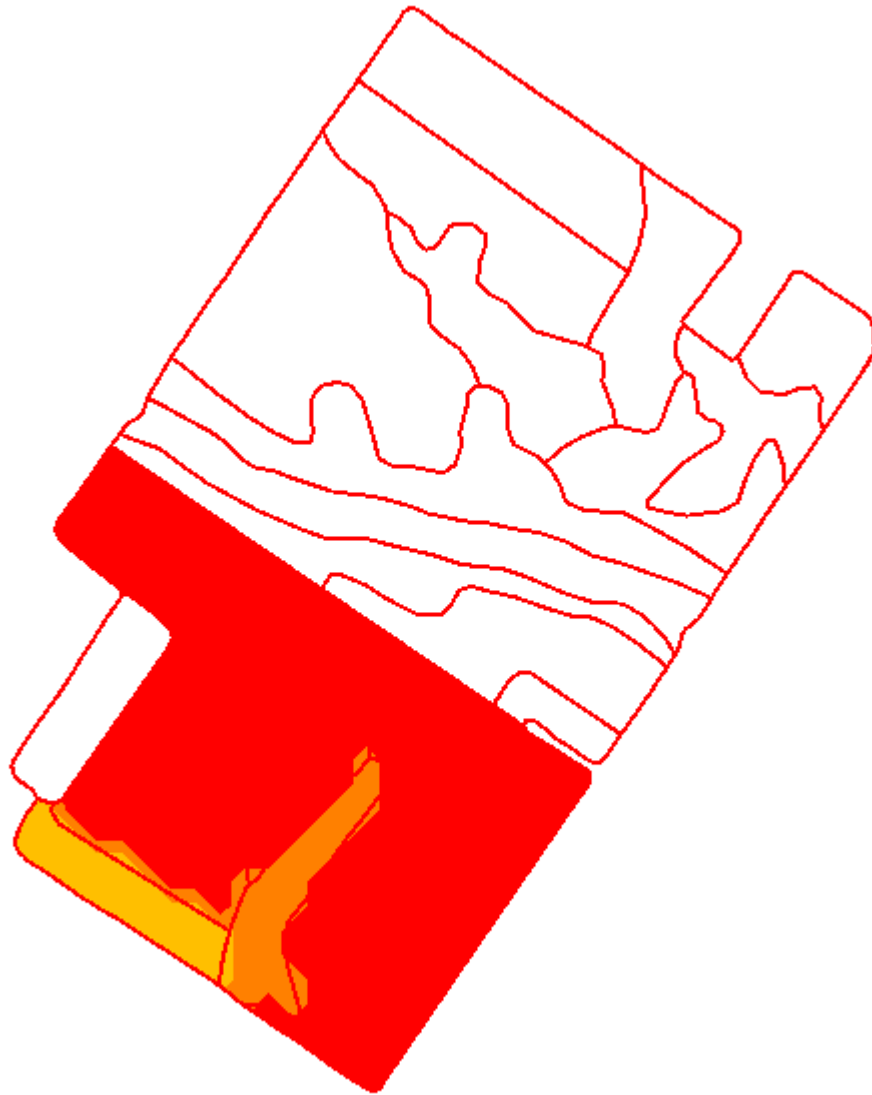
Season: 2015
Min Rate: 10.00 lb/ac
Avg Rate: 13.77 lb/ac
Max Rate: 20.00 lb/ac
Total Nutrient: 572.81 lb
Applied Area: 41.59 ac

Order Id: 478756
Order Task Id: 12793761
Crop - Year 1: Corn
Purpose - Year 1: Dry Grain

—	Field Boundary
■	Mg %
■	7.1 (2.5 ac) (3.6 %)
■	7.7 - 7.8 (6.5 ac) (9.5 %)
■	8.5 (1.5 ac) (2.2 %)
■	9.4 - 9.6 (7.7 ac) (11.2 %)
■	10.6 - 11.3 (17.5 ac) (25.4 %)
■	11.5 - 12.1 (12.0 ac) (17.4 %)
■	12.7 - 13.2 (21.1 ac) (30.7 %)

—	Management Zone Boundary
—	Field Boundary
■	Mg Recommendation lb/ac
■	10 (18.2 ac) (26.5 %)
■	15 (15.3 ac) (22.2 %)
■	20 (8.0 ac) (11.7 %)

MAP Recommendation



Grower: Hat Trick Farms Inc
Farm: Home Farm
Field: Field 1
Area: 25.32 ac

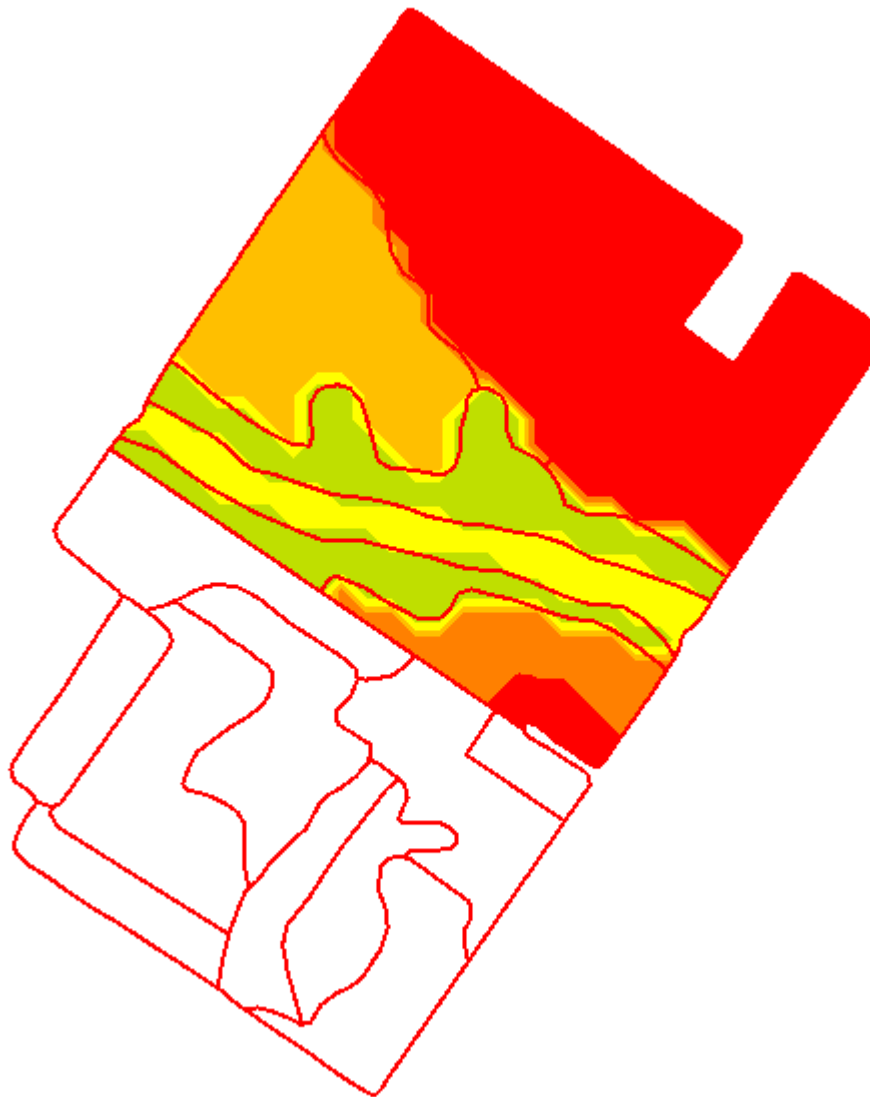


One in = 471 feet
0 213 426 639 852 1065

Season: 2015
Min Rate: 65.00 lb/ac
Avg Rate: 79.49 lb/ac
Max Rate: 175.00 lb/ac
Total Product: 2,012.35 lb
Applied Area: 25.32 ac
Product: 11-52-0 MAP
Order Id: 478756
Order Task Id: 12793742
Crop - Year 1: Winter Wheat
Purpose - Year 1: Dry Grain
Yield Goal - Year 1: 100

—	Management Zone Boundary
—	Field Boundary
MAP Recommendation lb/ac	
■	65 (21.5 ac) (31.2 %)
■	145 (1.9 ac) (2.7 %)
■	175 (2.0 ac) (2.9 %)

MAP Recommendation



Grower: Hat Trick Farms Inc
Farm: Home Farm
Field: Field 1
Area: 41.59 ac

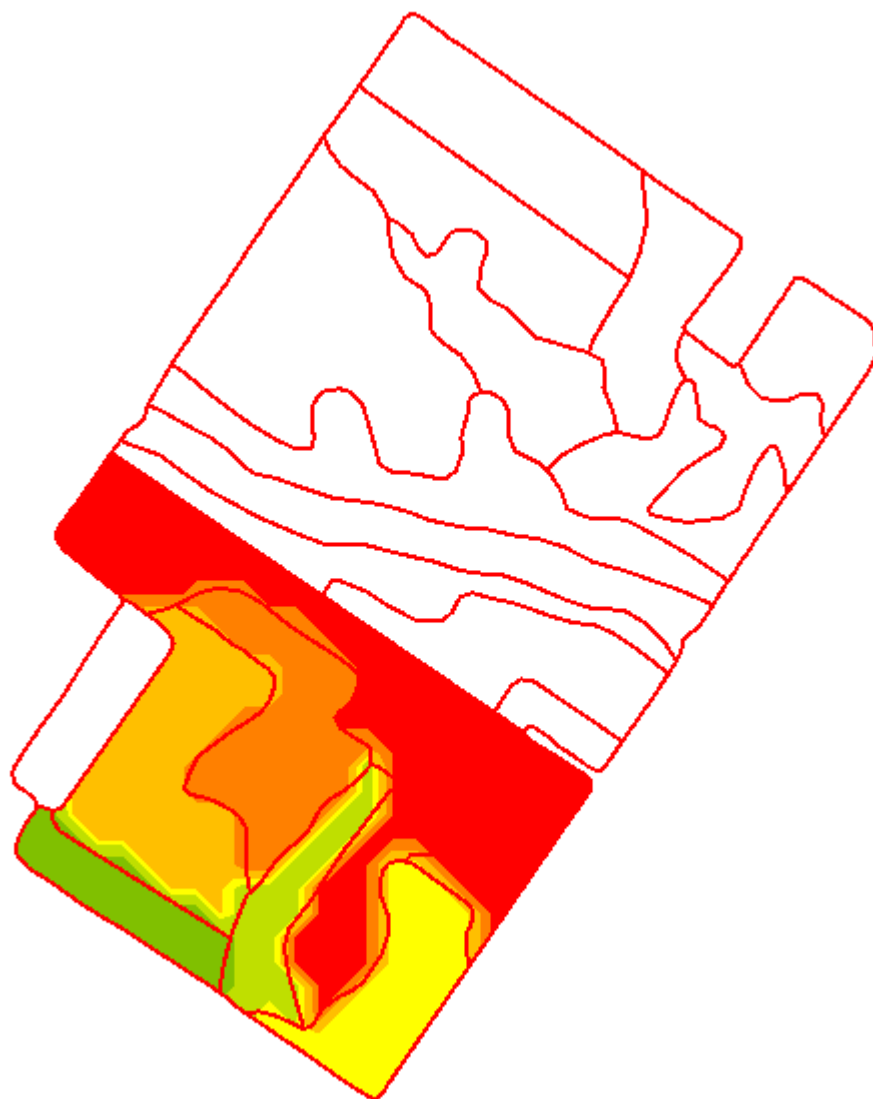


One in = 471 feet
0 213 425 638 851 1064

Season: 2015
Min Rate: 75.00 lb/ac
Avg Rate: 107.90 lb/ac
Max Rate: 165.00 lb/ac
Total Product: 4,487.25 lb
Applied Area: 41.59 ac
Product: 11-52-0 MAP
Order Id: 478756
Order Task Id: 12793743
Crop - Year 1: Corn
Purpose - Year 1: Dry Grain
Yield Goal - Year 1: 200

—	Management Zone Boundary
—	Field Boundary
MAP Recommendation lb/ac	
■	75 (20.2 ac) (29.3 %)
■	105 (2.7 ac) (3.9 %)
■	125 (7.3 ac) (10.6 %)
■	135 (3.6 ac) (5.2 %)
■	165 (7.9 ac) (11.4 %)

Potash Recommendation



Grower: Hat Trick Farms Inc
Farm: Home Farm
Field: Field 1
Area: 25.32 ac

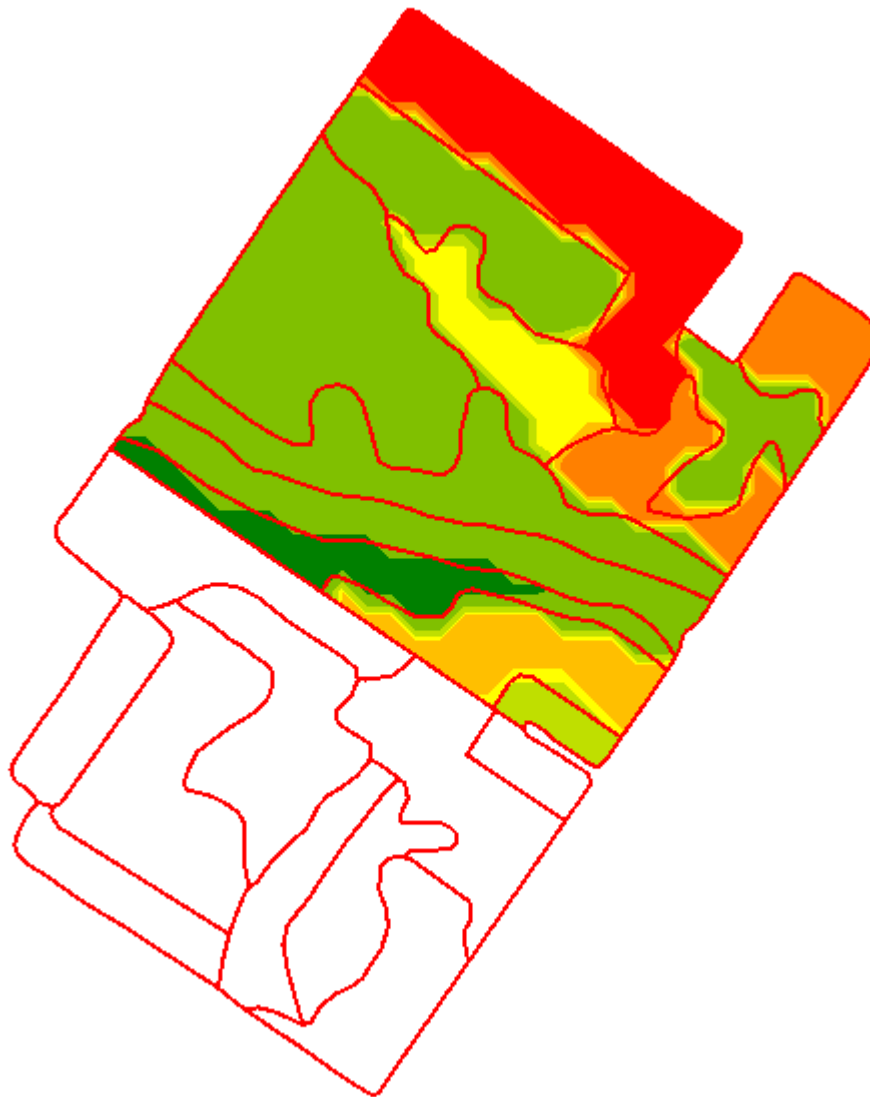


One in = 470 feet
0 213 425 638 851 1063

Season: 2015
Min Rate: 60.00 lb/ac
Avg Rate: 119.40 lb/ac
Max Rate: 300.00 lb/ac
Total Product: 3,022.74 lb
Applied Area: 25.32 ac
Product: 0-0-60
Order Id: 478756
Order Task Id: 12793748
Crop - Year 1: Winter Wheat
Purpose - Year 1: Dry Grain
Yield Goal - Year 1: 100

—	Management Zone Boundary
—	Field Boundary
Potash Recommendation lb/ac	
■	60 (9.8 ac) (14.2 %)
■	65 (4.2 ac) (6.1 %)
■	150 (4.4 ac) (6.4 %)
■	165 (3.1 ac) (4.5 %)
■	215 (1.9 ac) (2.7 %)
■	300 (2.0 ac) (2.9 %)

Potash Recommendation



Grower: Hat Trick Farms Inc
Farm: Home Farm
Field: Field 1
Area: 41.59 ac

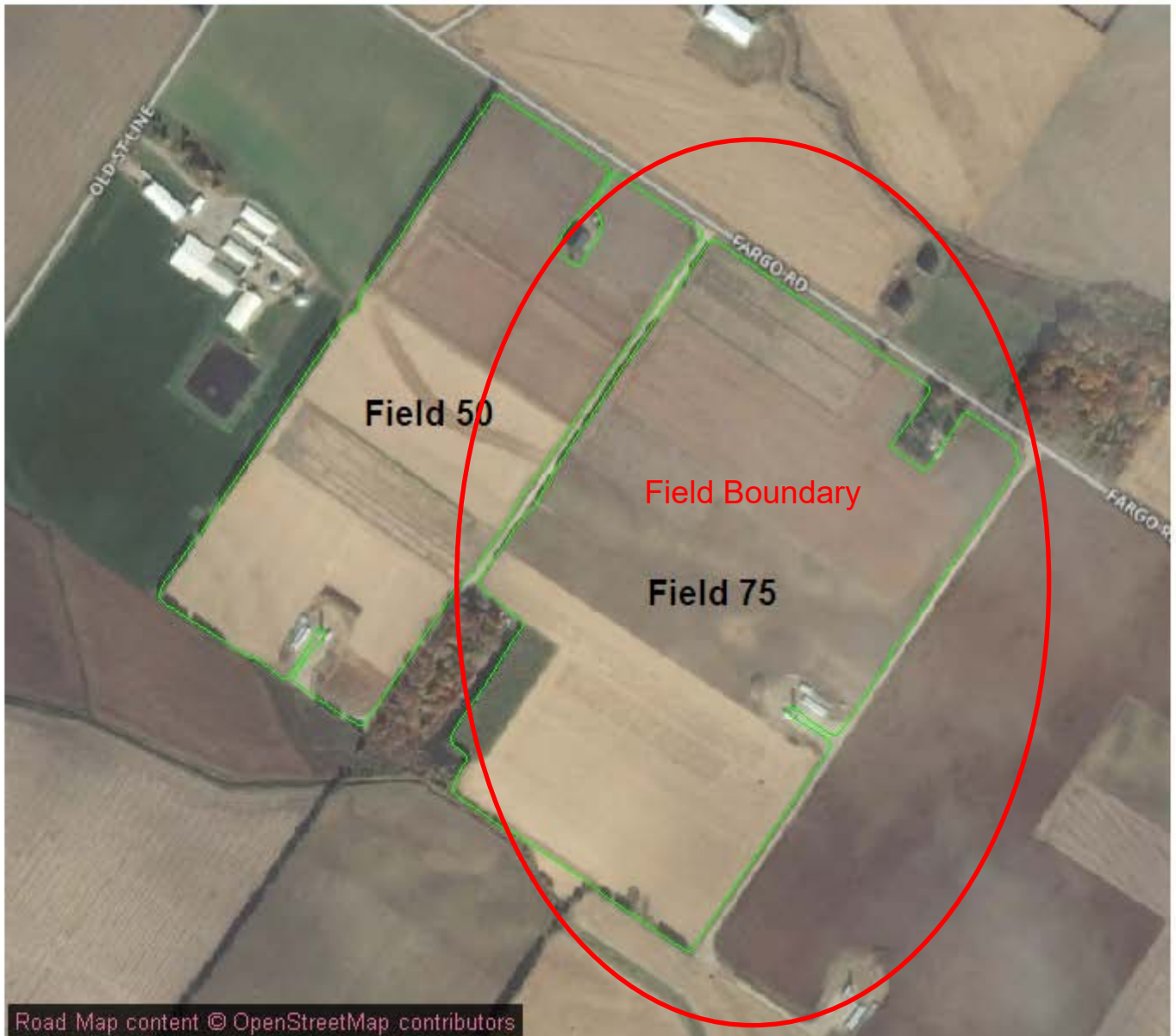


One in = 470 feet
0 213 425 638 851 1063

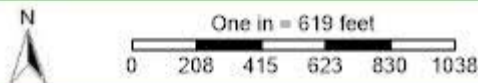
Season: 2015
Min Rate: 85.00 lb/ac
Avg Rate: 258.09 lb/ac
Max Rate: 365.00 lb/ac
Total Product: 10,733.02 lb
Applied Area: 41.59 ac
Product: 0-0-60
Order Id: 478756
Order Task Id: 12793749
Crop - Year 1: Corn
Purpose - Year 1: Dry Grain
Yield Goal - Year 1: 200

—	Management Zone Boundary
—	Field Boundary
Potash Recommendation lb/ac	
■	85 (6.7 ac) (9.7 %)
■	140 - 150 (3.9 ac) (5.7 %)
■	210 (2.7 ac) (3.9 %)
■	225 (2.7 ac) (4.0 %)
■	240 (0.9 ac) (1.3 %)
■	310 - 340 (21.6 ac) (31.4 %)
■	365 (3.1 ac) (4.5 %)

Home Farm

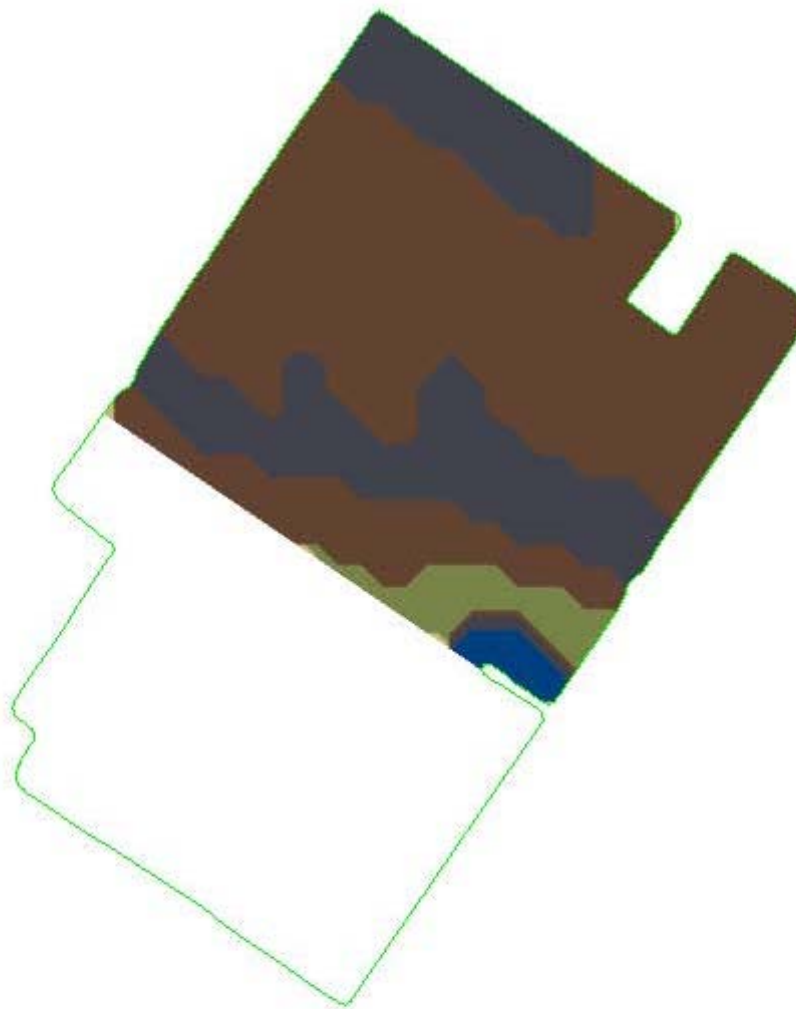


Date: 4/26/2018
Farm: Home Farm
Grower: Hat Trick Farms Inc
Area: 116.05 ac



Home Farm (116.05 ac)

Soil Test - CEC (meq/100g) — 2015



Date: 5/2/2018
Field: Field 75
Farm: Home Farm
Grower: Hat Trick Farms Inc
Area: 68.79 ac
Lat: 42.30681°N
Lon: 081.97625°W

Min: 9.80 meq/100 g
Avg: 13.89 meq/100 g
Max: 27.40 meq/100 g



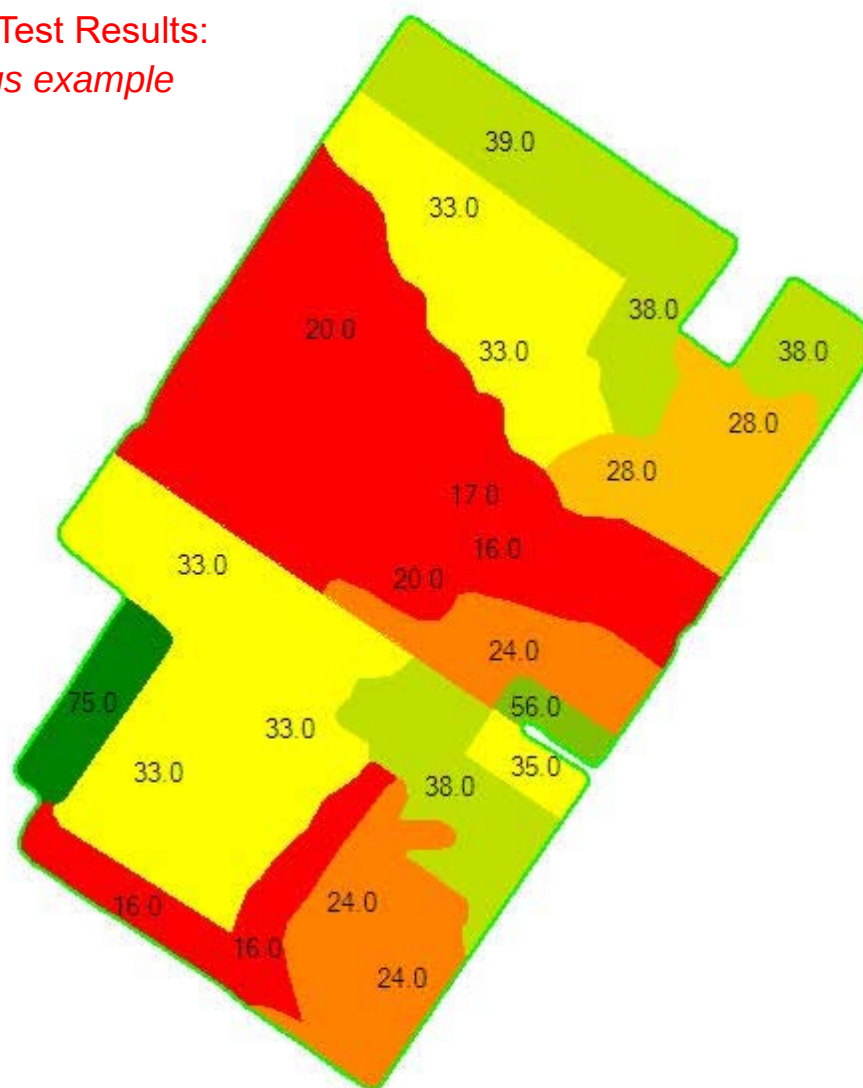
One in = 515 feet

0 173 345 518 691 863

CEC	Soil Type	
≤ 6	Sand	(0.00 ac)
6 - 10	Silt Loam	(2.70 ac)
10 - 15	Loam	(25.63 ac)
15 - 25	Clay Loam	(12.40 ac)
25 - 27	Heavy Clay	(0.86 ac)

P Bicarb

Current Soil Test Results:
Phosphorus example



Grower: Hat Trick Farms
Inc.
Farm: Home Farm
Field: Field 1
Area: 68.79 ac

Min: 16.00
Avg: 31.17
Max: 75.00

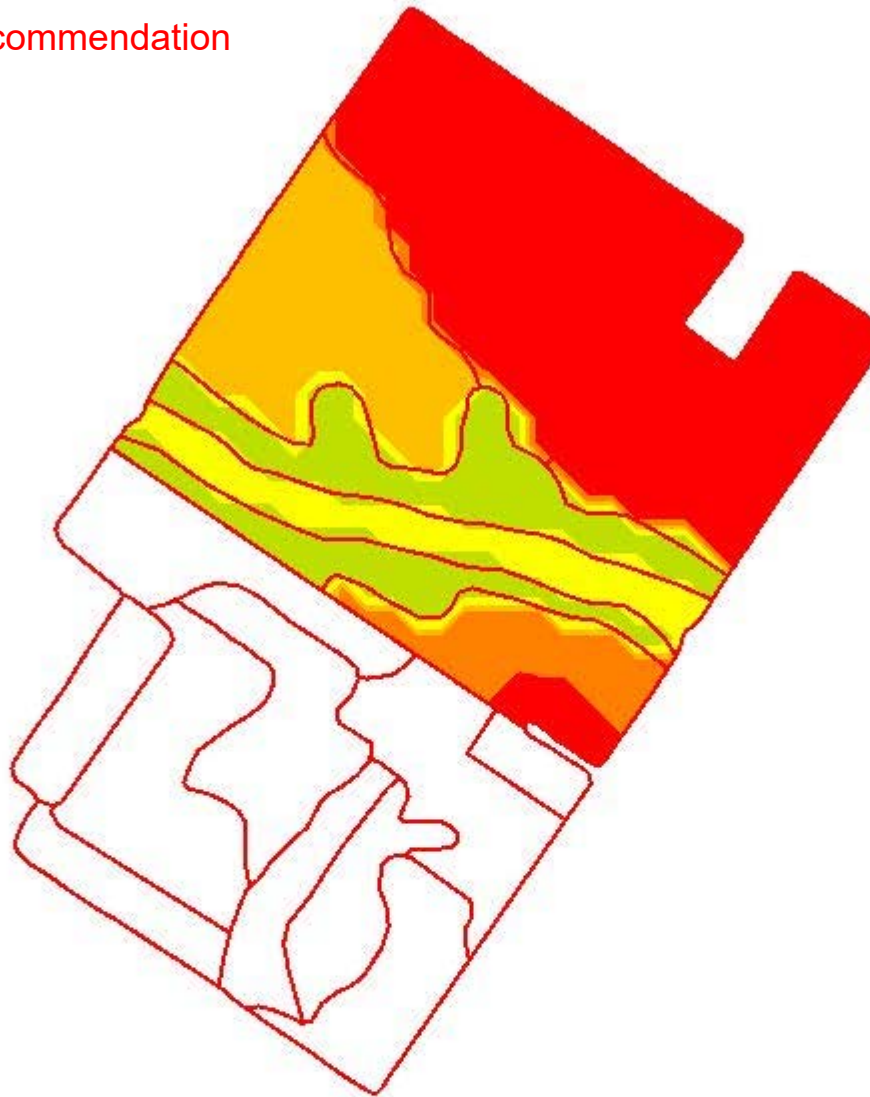


One in = 474 feet
0 214 429 643 857 1072

—	Field Boundary
■	P Bicarb
■	16 - 20 (21.8 ac) (31.7 %)
■	24 (8.1 ac) (11.8 %)
■	28 (4.5 ac) (6.5 %)
■	33 - 35 (19.8 ac) (28.7 %)
■	38 - 39 (12.1 ac) (17.6 %)
■	56 (0.7 ac) (1.0 %)
■	75 (1.9 ac) (2.7 %)

MAP Recommendation

Nutrient Recommendation



Grower: Hat Trick Farms Inc
Farm: Home Farm
Field: Field 1
Area: 41.59 ac



One in = 471 feet
0 213 425 638 851 1064

Season: 2015
Min Rate: 75.00 lb/ac
Avg Rate: 107.90 lb/ac
Max Rate: 165.00 lb/ac
Total Product: 4,487.25 lb
Applied Area: 41.59 ac
Product: 11-52-0 MAP
Order Id: 478756
Order Task Id: 12793743
Crop - Year 1: Corn
Purpose - Year 1: Dry Grain
Yield Goal - Year 1: 200

—	Management Zone Boundary
—	Field Boundary
MAP Recommendation lb/ac	
■	75 (20.2 ac) (29.3 %)
■	105 (2.7 ac) (3.9 %)
■	125 (7.3 ac) (10.6 %)
■	135 (3.6 ac) (5.2 %)
■	165 (7.9 ac) (11.4 %)

Yield Goal

Standard D8



Home Farm



Date: 4/24/2018

Farm: Home Farm

Grower: Hat Trick Farms Inc

Area: 116.05 ac



One in = 619 feet
0 208 415 623 830 1038



Home Farm

(116.05 ac)

Home Farm



Date: 4/25/2018
Farm: Home Farm
Grower: Hat Trick Farms Inc
Area: 116.05 ac

Soil Type: Silt Loam



One in = 619 feet
0 208 415 623 830 1038



Home Farm

(116.05 ac)

Legend:

● Drilled Well (3m set back)

▲ Hickenbottom

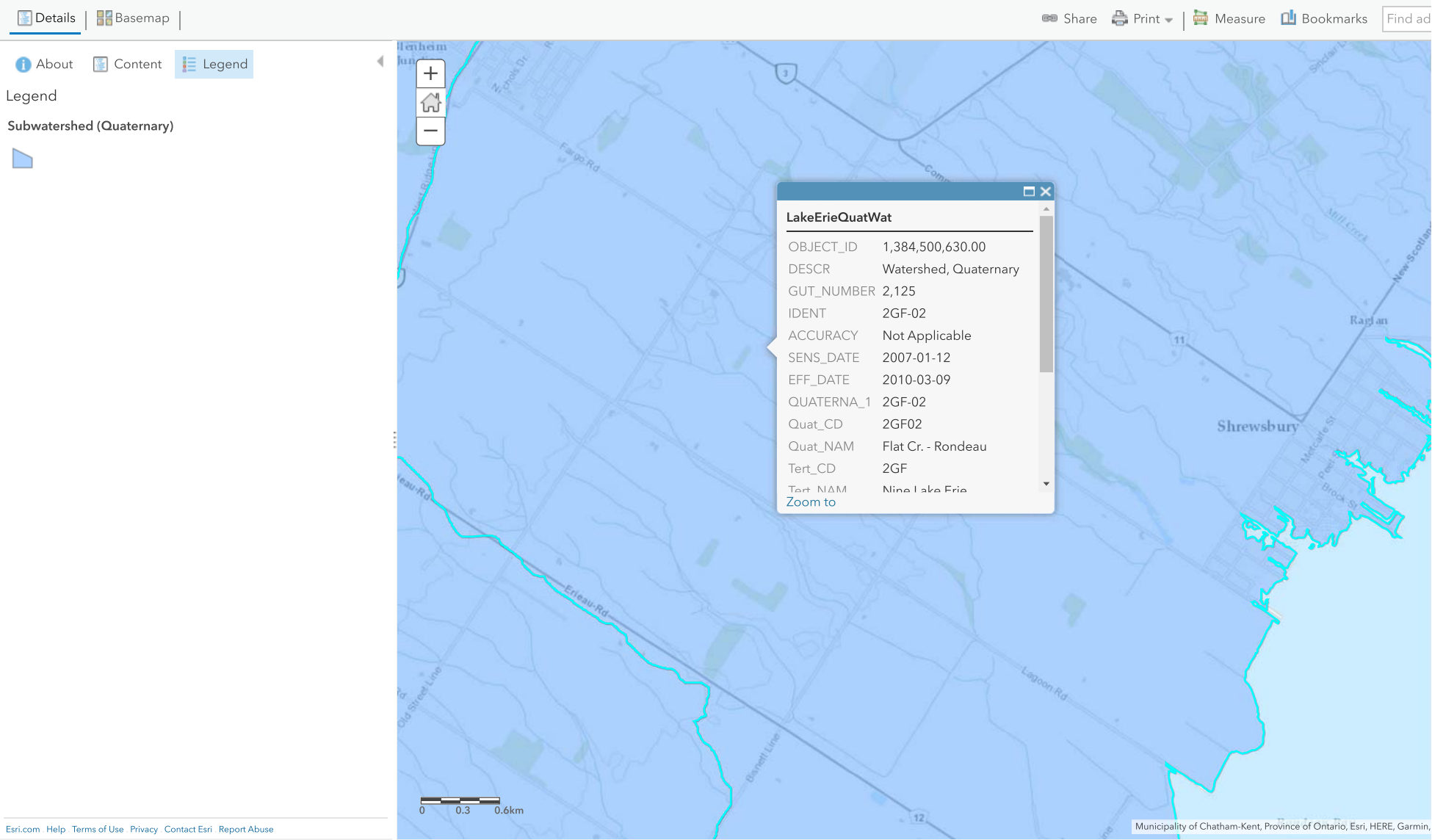
■ Catch Basin

— Open Ditch

Standard D9



ArcGIS ▾ Lake Erie and Lake St. Clair Watersheds [CCA]



Hat Trick Farms - Home Farm
Watershed: Lake Erie
Sub-Watershed: Flat Creek - Rondeau