USDA Nutrient Data Base

Food	1975	2004	% change
Iron (mg per 100 grams)			
Apples	0.3	0.12	-60%
Blueberries	1.0	0.28	-72%
Onions	0.5	0.19	-62%
Tomatoes	0.5	0.45	-10%
Carrots	0.7	0.30	-57%
Spinach	3.1	2.71	-13%
Corn	0.7	0.52	-26%
Peas	1.9	1.47	-23%
Broccoli	1.1	0.73	-33%
Kale	2.7	1.70	-37%
Strawberries	1.0	0.42	-58%
Calcium (mg per 100 grams)			
Apples	7.0	6.0	-14%
Blueberries	15.0	6.0	-60%
Onions	27.0	22.0	-18%
Tomatoes	37.0	33.0	-11%
Green beans	56.0	37.0	-33%
Corn	3.0	2.0	-33%
Peas	26.0	25.0	-4%
Broccoli	103.0	47.0	-54%
Kale	249.0	135.0	-46%
Strawberries	21.0	16.0	-24%

Vitamin A (Int. units per 100 grams)			
Apples	90	54	-40%
Blueberries	100	54	-46%
Onions	40	2	-95%
Tomatoes	900	623	-31%
Corn	400	1.0	-400%
Broccoli	2,500	660.0	-74%
Strawberries	60	12.0	-80%
Vitamin C (mg per 100 grams)			
Blueberries	14.0	9.7	-31%
Onions	10.0	6.4	-36%
Carrots	8.0	5.9	-26%
Potatoes	20.0	11.4	-43%
Green beans	19.0	16.3	-14%
Spinach	51.0	28.1	-45%
Corn	12.0	6.8	-44%
Broccoli	113.0	89.2	-21%
Kale	186.0	120.0	-35%
Strawberries	59.0	59.0	-0%

A simple barometer of the nutritional value of our diet is to look at the health of immigrants. We can look at what happens to people who leave their third world birth place and come to the U.S. for a new life. In a study published in the *Journal of the American Medical Association*, December 15, 2004, it was reported that, "The longer you live in America, the more likely you are to be obese." (Remember - obesity is a mineral deficiency disease - not a disease of excess)

The study examined the obesity rates among

Total Exchange Capacity (M.E.)		4	25.34	14.02	6.95	4.70
pH of Soil Sample		5	6.30	6.30	6.30	6.30
Humus Content, Percent		6	5.10	5.10	5.10	5.10
ANIONS	**NITROGEN:** lbs / acre	7	100	100	100	100
	SULFATES: p.p.m.	8	100	50	50	50
	( ) = OLSEN P		Low High			
	PHOSPHATES: Desired Value	9	500~ 750	500	500	500
	as (P_2O_5) Value Found		750	500	500	500
	lbs / acre Deficit					
EXCHANGEABLE CATIONS	**CALCIUM:** Desired Value	10	6994	3813	1807	1129
	lbs / acre Value Found		6994	3813	1807	1129
	Deficit					
	MAGNESIUM: Desired Value	11	669	404	250	225
	lbs / acre Value Found		669	404	250	225
	Deficit					
	POTASSIUM: Desired Value	12	1482	820	407	275
	lbs / acre Value Found		1482	820	407	275
	Deficit					
	SODIUM: lbs / acre	13	58	32	16	10
BASE SATURATION PERCENT						
Calcium (60 to 70%) } 80%		14	69.00	68.00	65.01	60.00
Magnesium (10 to 20%) } 80%			11.00	12.00	14.99	20.00
Potassium (2 to 5%) (7.5% especially for winegrapes)			7.50	7.50	7.50	7.50
Sodium (.5 to 3%)			0.50	0.50	0.50	0.50
Other Bases (Variable)			1.50	1.50	1.50	1.50
EXCHANGEABLE HYDROGEN (10 to 15%)			10.50	10.50	10.50	10.50
Cobalt (p.p.m.)		15	1.00	1.00	1.00	1.00
Salinity 1:2 EC (dS/M)		16	1.50	1.50	1.50	1.50
Chlorides (p.p.m.)		17	115.00	115.00	115.00	115.00

PLOT ID: D8V4E

Kinsey Agricultural Services, Inc.

297 County Highway 357 · Charleston, MO 63834
Phone 573-683-3880 Fax 573-683-6227 e-mail neal@kinseyag.com

Client: PETER EGGERS   City: LA GLACE, ALBERTA, CANADA   Date: 20-Dec-04

Location	NORDHAGEN
Crop	WHEAT / WHEAT
Field / Sample	21
Lab No.	D0091
Total Exchange Capacity (M.E.)	25.50
Desired Ca : Mg Ratio	69 : 11
pH of Soil Sample	5.9
Humus Content, Percent	5.6

Previous Analyses & Applications

BASE SATURATION PERCENT	
Calcium (60 to 70%) } 80%	30.19
Magnesium (10 to 20%)	36.60
Potassium (2 to 5%)	3.63
Sodium (.5 to 3%)	5.97
Other Bases (Variable)	5.61
EXCHANGEABLE HYDROGEN (10 to 15%)	18.00

RECOMMENDATIONS

				Amendment	Lbs/Acre
ANIONS	NITROGEN Lbs/Acre	ENR Value	103		
	SULFATE - S p.p.m.	Value Found	21	SULFUR 90-92%	10
	PHOSPHATES as (P2O5) Lbs/Acre	Desired Value	500		
		Olsen Value			
		Value Found	439		
		Deficit/Surplus	-61		
CATIONS	CALCIUM Lbs/Acre	Desired Value	6936	CALCIUM CARB (a)	8000
		Value Found	3079		
		Deficit/Surplus	-3857		
	MAGNESIUM Lbs/Acre	Desired Value	734		
		Value Found	2240		
		Deficit/Surplus	+1506		
	POTASSIUM Lbs/Acre	Desired Value	488	POT SULFATE 0-0-50 (b)	200
		Value Found	723		
		Deficit/Surplus	+235		
	SODIUM Lbs/Acre	Desired Value	117	VERY EXCESSIVE	
		Value Found	700		
		Deficit/Surplus	+583		
TRACES	Boron	p.p.m.	1.32		
	Iron	p.p.m.	347		
	Manganese	p.p.m.	84	MANG FOLIAR (c)	
	Copper	p.p.m.	0.70	CU SULFATE 23%	25
	Zinc	p.p.m.	18.40		

NOTES

(a) Apply limestone at this rate only if no lime or gypsum has been added in the last three years, if previously limed we need to revise rates accordingly.
(b) Potassium Chloride not recommended when Sodium base saturation percent greater than 3.
(c) Consider foliar manganese pending leaf analysis and review with consultant.

A service of Kinsey's Agricultural Services : Checked by ____NK____   0402115_33720

ALL RECOMMENDATIONS ARE TO BE SOIL-APPLIED AND BROADCAST UNLESS OTHERWISE SPECIFIED

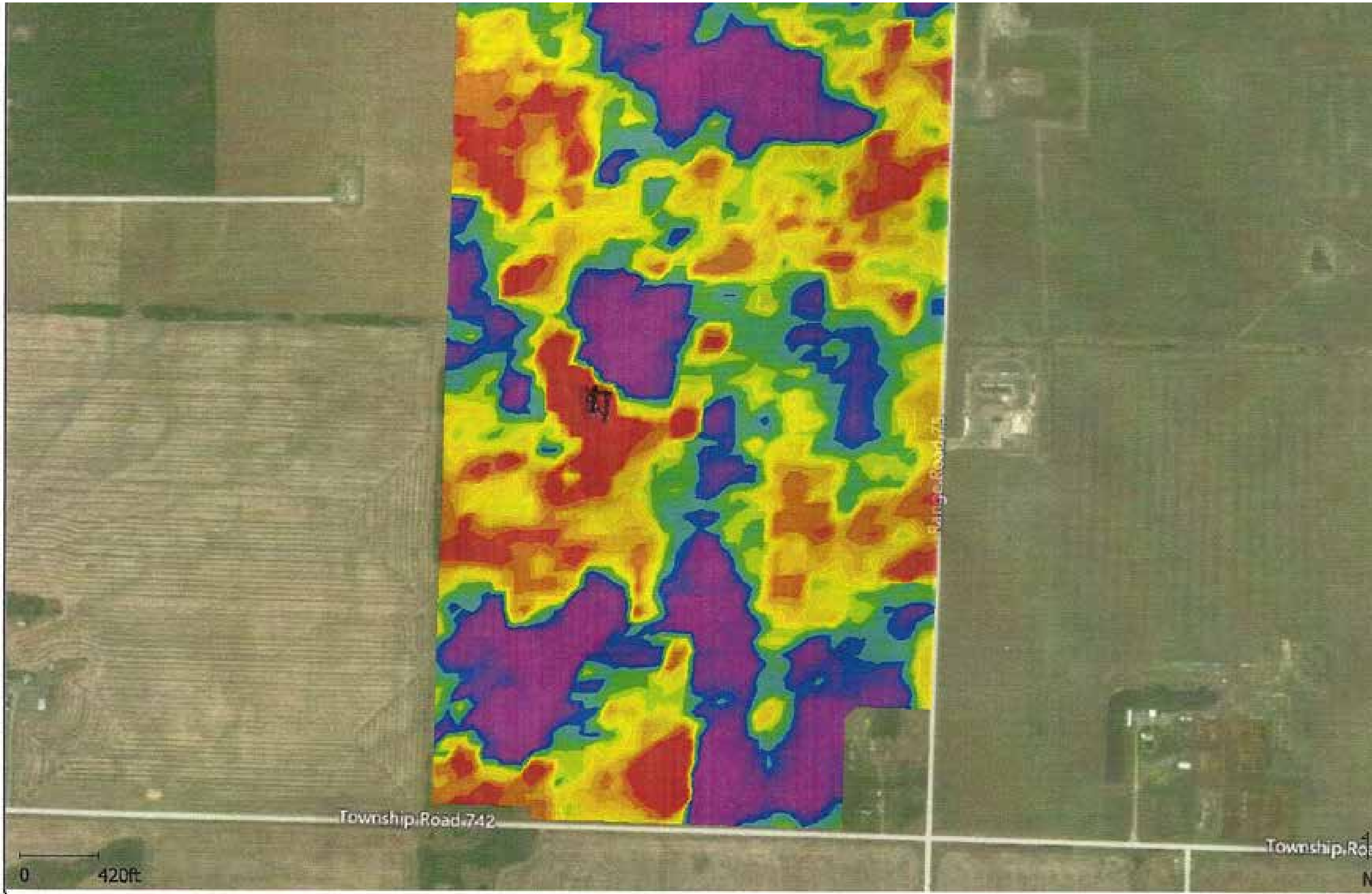
Lab No.	C0045
Total Exchange Capacity (M.E.)	21.47
Desired Ca : Mg Ratio	69 : 11
pH of Soil Sample	6.1
Humus Content, Percent	5.7

BASE SATURATION PERCENT	
Calcium (60 to 70%) } 80%	64.37
Magnesium (10 to 20%) } 80%	12.91
Potassium (2 to 5%)	2.88
Sodium (.5 to 3%)	1.15
Other Bases (Variable)	5.19
EXCHANGEABLE HYDROGEN (10 to 15%)	13.50

RECOMMENDATIONS

				Amendment	Lbs/Acre
ANIONS	NITROGEN Lbs/Acre	ENR Value	104	AMSULF 21-0-0-24	125
	SULFATE - S p.p.m.	Value Found	13	SULFUR 90-92%	20
	PHOSPHATES	Desired Value	320	MAP 11-53-0	250
		Olsen Value			
	as (P2O5)	Value Found	263		
	Lbs/Acre	Deficit/Surplus	-57		
CATIONS	CALCIUM Lbs/Acre	Desired Value	5840	CALCIUM CARB (a)	1300
		Value Found	5528		
		Deficit/Surplus	-312		
	MAGNESIUM Lbs/Acre	Desired Value	618	(b)	
		Value Found	665		
		Deficit/Surplus	+47		
	POTASSIUM Lbs/Acre	Desired Value	837	POT CHLORIDE 0-0-60	150
		Value Found	483		
		Deficit/Surplus	-354		
	SODIUM Lbs/Acre	Desired Value	99		
		Value Found	114		
		Deficit/Surplus	+15		
TRACES	Boron	p.p.m.	1.20	BORON 14.3%	15
	Iron	p.p.m.	282		
	Manganese	p.p.m.	104		
	Copper	p.p.m.	0.50	CU SULFATE 23%	25
	Zinc	p.p.m.	17.60		

%		%		%	
Amend	added	Amend	added	Amend	added
P.P.M		P.P.M		P.P.M	



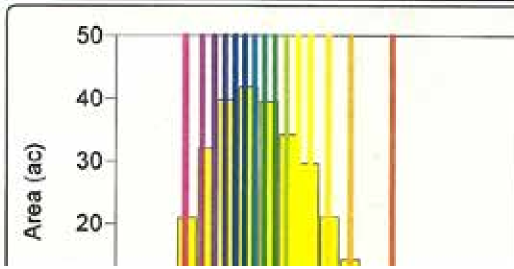
Grower - Peter Eggers

Operation - Soil EC / Elevation

Date Collected - May 2014

EC Shallow
(dS/m)

17.54 - 59.24
15.48 - 17.54
14.36 - 15.48
13.46 - 14.36
12.86 - 13.46
12.28 - 12.86
11.69 - 12.28
11.19 - 11.69
10.69 - 11.19




01/10/2011


09/10/2011


06/09/2015


07/09/2015


29/06/2013


16/10/2015


18/10/2015

PHOTO BY JANET KANTERS

19/11/2015

HISTORY OF HERBICIDE RESISTANCE


09/09/2013


14/11/2015

	Total Exchange Capacity (M.E.)		20.91			
	Desired Ca : Mg, Percent		69 : 11			
	pH of Soil Sample		6.8			
	Humus Content, Percent		6.7			
	BASE SATURATION PERCENT					% / % / %
	Calcium (60 to 70%) } 80%		66.71			
	Magnesium (10 to 20%) } 80%		21.16			
	Potassium (2 to 5%)		4.15			
	Sodium (.5 to 3%)		0.38			
	Other Bases (Variable)		4.60			
	EXCHANGEABLE HYDROGEN (10 to 15%)		3.00	**RECOMMENDATIONS**		
				Amendment	Lbs/Acre	
ANIONS	NITROGEN Lbs/Acre	ENR Value	109	**AS NEEDED**		
	SULFATE - S p.p.m.	Value Found	6	**SULFUR 90-92%**	**35**	
	PHOSPHATES as (P2O5) Lbs/Acre	Desired Value	500			
		Olsen Value		**MAP 11-52-0**	**250**	
		Value Found	95			
		Deficit/Surplus	-405			
						Amend / added / Amend / added / Amend / added
CATIONS	CALCIUM Lbs/Acre	Desired Value	5688			
		Value Found	5580	**GYPSUM (a)**	**1950**	(Or can use 1450 Lbs/acre of Calcium Carb if Gypsum is not available.)
		Deficit/Surplus	-108			
	MAGNESIUM Lbs/Acre	Desired Value	602	**NONE**		
		Value Found	1062			
		Deficit/Surplus	+460			
	POTASSIUM Lbs/Acre	Desired Value	416			
		Value Found	677	**POT CHLORIDE 0-0-60**	**150**	
		Deficit/Surplus	+261			
	SODIUM Lbs/Acre	Desired Value	96			
		Value Found	37			
		Deficit/Surplus	-59			P.P.M / P.P.M / P.P.M
TRA	Boron	p.p.m.	1.54			
	Iron	p.p.m.	94	**FE SULFATE 21% (b) (c) (d)**	**50**	
	Manganese	p.p.m.	89			
	Copper	p.p.m.	0.30	**CU SULFATE 23%**	**30**	(Or 5 lbs/acre per year for 6 years.)
	Zinc		8.60			

Desired Ca : Mg, Percent		69 : 11				
pH of Soil Sample		7.3				
Humus Content, Percent		8.1				

BASE SATURATION PERCENT			%	%	%
Calcium (60 to 70%) } 80%	55.68				
Magnesium (10 to 20%) } 80%	20.88				
Potassium (2 to 5%)	17.44				
Sodium (.5 to 3%)	1.91				
Other Bases (Variable)	4.09				
EXCHANGEABLE HYDROGEN (10 to 15%)	0.00	RECOMMENDATIONS			

				Amendment	Lbs/Acre
ANIONS	NITROGEN Lbs/Acre	ENR Value	116	PROTEIN MEAL 11% N (a)	400
	SULFATE - S p.p.m.	Value Found	33	SULFUR 90-92%	25
	PHOSPHATES as (P2O5) Lbs/Acre	Desired Value	750	NONE	
		Olsen Value			
		Value Found	1098		
		Deficit/Surplus	+348		
CATIONS	CALCIUM Lbs/Acre	Desired Value	7099	CALCIUM CARB (b)	1500
		Value Found	5813	GYPSUM (c)	2000
		Deficit/Surplus	-1286		
	MAGNESIUM Lbs/Acre	Desired Value	752		
		Value Found	1308		
		Deficit/Surplus	+556		
	POTASSIUM Lbs/Acre	Desired Value	1527	NONE	
		Value Found	3550		
		Deficit/Surplus	+2023		
	SODIUM Lbs/Acre	Desired Value	120		
		Value Found	229		
		Deficit/Surplus	+109		
TRACES	Boron	p.p.m.	1.93		
	Iron	p.p.m.	118	FE SULFATE 21% (d) (e) (f)	400
	Manganese	p.p.m.	208	MANG FOLIAR (g)	
	Copper	p.p.m.	0.50	CU SULFATE 23%	25 (Or 5 lbs/acre per year for 5 years.)
	Zinc	p.p.m.	41.40	NONE	

Amend	added	Amend	added	Amend	added
P.P.M		P.P.M		P.P.M	

N
(a) Such as alfalfa, feather, fish, bloodmeal, etc. Repeat each 60 days of the growing season for crops needing higher amounts of Nitrogen.
(b) Apply Limestone at this rate only if no lime has been added in the last three years or gypsum in the last one year, if so we need to revise rates accordingly.
(c) Do Not apply Gypsum unless recommended Calcium Carbonate Lime will be applied that same season.
(d) Ferrous Sulfate - should only use the white or blue-green in color, black or rust colored is never recommended. CAUTION: Apply so as to avoid

PERRY AGRICULTURAL LABORATORY, INC.

January 20, 2006

SPECIAL REPORT

KINSEY'S AGRICULTURAL SERVICES
297 COUNTY HIGHWAY 357
CHARLESTON, MO 63834

SUBMITTED FOR: EGGERS, PETER

SAMPLE: DOLOMITE 2 LAB #: 124

ANALYSIS		
MOISTURE		
SOLIDS		
CALCIUM Ca %		20.24
AS CALCIUM OXIDE CaO %		28.34
AS CALCIUM CARBONATE CaCO3 %		50.61
MAGNESIUM Mg %		13.07
AS MAGNESIUM OXIDE MgO %		21.78
AS MAGNESIUM CARBONATE MgCO3 %		45.63
AS CaCO3 % EQUIVALENT		54.18
POTASSIUM K %		
SODIUM Na %		
TNP - TOTAL NEUTRALIZING POWER In Terms of CaCO3		104.79

FINENESS TEST:

SIEVE NO.	% PASSING
8	76.4
40	58.8
60	54.3
100	54.2

SULFUR SO4-S%		
PHOSPHORUS P%		
BORON	ppm	
IRON	ppm	
MANGANESE	ppm	
COPPER	ppm	
ZINC	ppm	

LBS EFFECTIVE CA PER TON	248.53	no.	450
LBS EFFECTIVE MG PER TON	160.51	0.9	225

KINSEY'S AGRICULTURAL SERVICES
297 COUNTY HIGHWAY 357
CHARLESTON, MO 63834

SUBMITTED FOR: EGGERS, PETER

SAMPLE: **GRIMSHAW MARL I LIME** LAB #: 123

ANALYSIS

MOISTURE	
SOLIDS	
CALCIUM Ca %	31.88
AS CALCIUM OXIDE CaO %	44.63
AS CALCIUM CARBONATE CaCO3 %	79.69
MAGNESIUM Mg %	0.45
AS MAGNESIUM OXIDE MgO %	0.75
AS MAGNESIUM CARBONATE MgCO3 %	1.58
AS CaCO3 % EQUIVALENT	1.88
POTASSIUM K %	
SODIUM Na %	
TNP - TOTAL NEUTRALIZING POWER In Terms of CaCO3	81.57

FINENESS TEST:

SIEVE NO.	% PASSING
8	86.1
40	48.3
60	36.8
100	34.5

SULFUR SO4-S%
PHOSPHORUS P%
BORON ppm