

R.M. OF DUFFERIN



PROVINCE OF MANITOBA
INFRASTRUCTURE
HIGHWAY PLANNING AND DESIGN BRANCH
GEOGRAPHIC & RECORDS MANAGEMENT SECTION
WINNIPEG

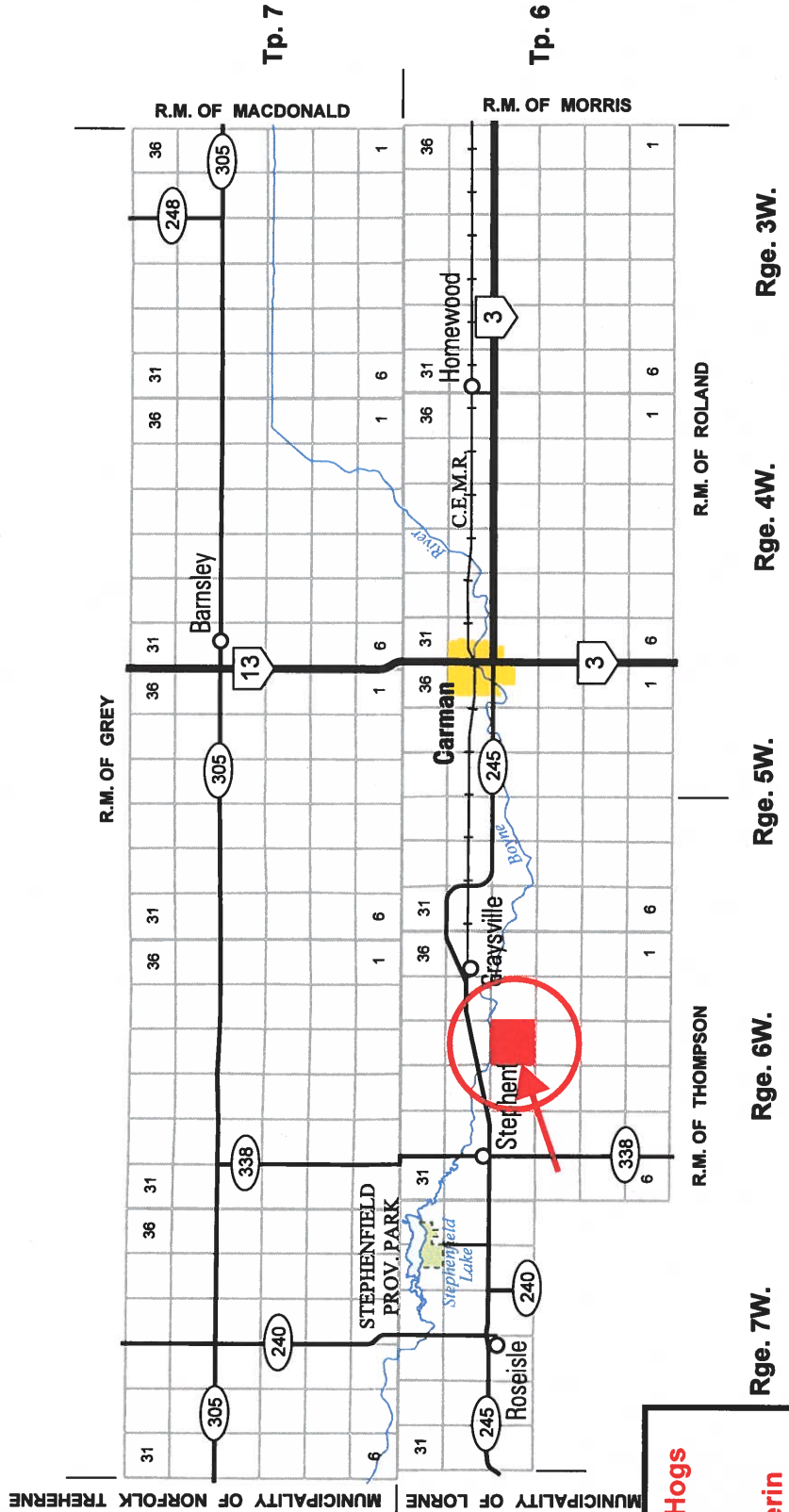
JANUARY 1, 2015



0 5
SCALE IN KILOMETRES

LEGEND

- PROVINCIAL TRUNK HIGHWAYS  ACCESS ROADS
- PROVINCIAL ROADS  RAILWAYS



Rosevalley Hogs
22-6-6W
RM of Dufferin

Animal Units Calculator

A	B	C	Current Operation		Proposed Operation	
			D	E	F	G
Operation Type	Animal Categories	Animal Units per Head	Current Number of Animals ¹	Current Animal Units	Proposed Number of Animals ²	Proposed Number of Animal Units
Dairy ³	Mature cows (lactating and dry) including associated livestock	2	5	10	5	10
	Mature cows (lactating and dry)	1.35		-		-
	Heifers (0 to 3 months)	0.16		-		-
	Heifers (4 to 13 months)	0.41		-		-
	Heifers (> 13 months)	0.87		-		-
	Bulls	1.35		-		-
	Veal calves	0.13		-		-
Beef	Beef cows including associated livestock	1.25		-		-
	Backgrounder	0.5		-		-
	Summer pasture / replacement heifers	0.625		-		-
	Feeder cattle	0.769		-		-
Pigs	Sows - farrow to finish (234-254 lbs)	1.25	800	1,000	1,400	1,750
	Sows - farrow to weaning (up to 11 lbs)	0.25		-		-
	Sows - farrow to nursery (51 lbs)	0.313		-		-
	Boars (artificial insemination units)	0.2		-		-
	Weanlings, Nursery (11-51 lbs)	0.033		-		-
	Growers / Finishers (51-249 lbs)	0.143		-		-
Chickens	Broilers	0.005		-		-
	Roasters	0.01		-		-
	Layers	0.0083	10,000	83	20,000	166
	Pullets	0.0033	5,000	17	10,000	33
	Broiler breeder pullets	0.0033		-		-
	Broiler breeder hens	0.01		-		-
Turkeys	Broilers	0.01		-		-
	Heavy Toms	0.02		-		-
	Heavy Hens	0.01		-		-
Horses	Mares	1.333		-		-
Sheep	Ewes	0.2		-		-
	Feeder lambs	0.063		-		-
Other Livestock	Type:			-		-
	Type:			-		-
Total Current:				1,110	Total Proposed:	1,959

Footnotes:

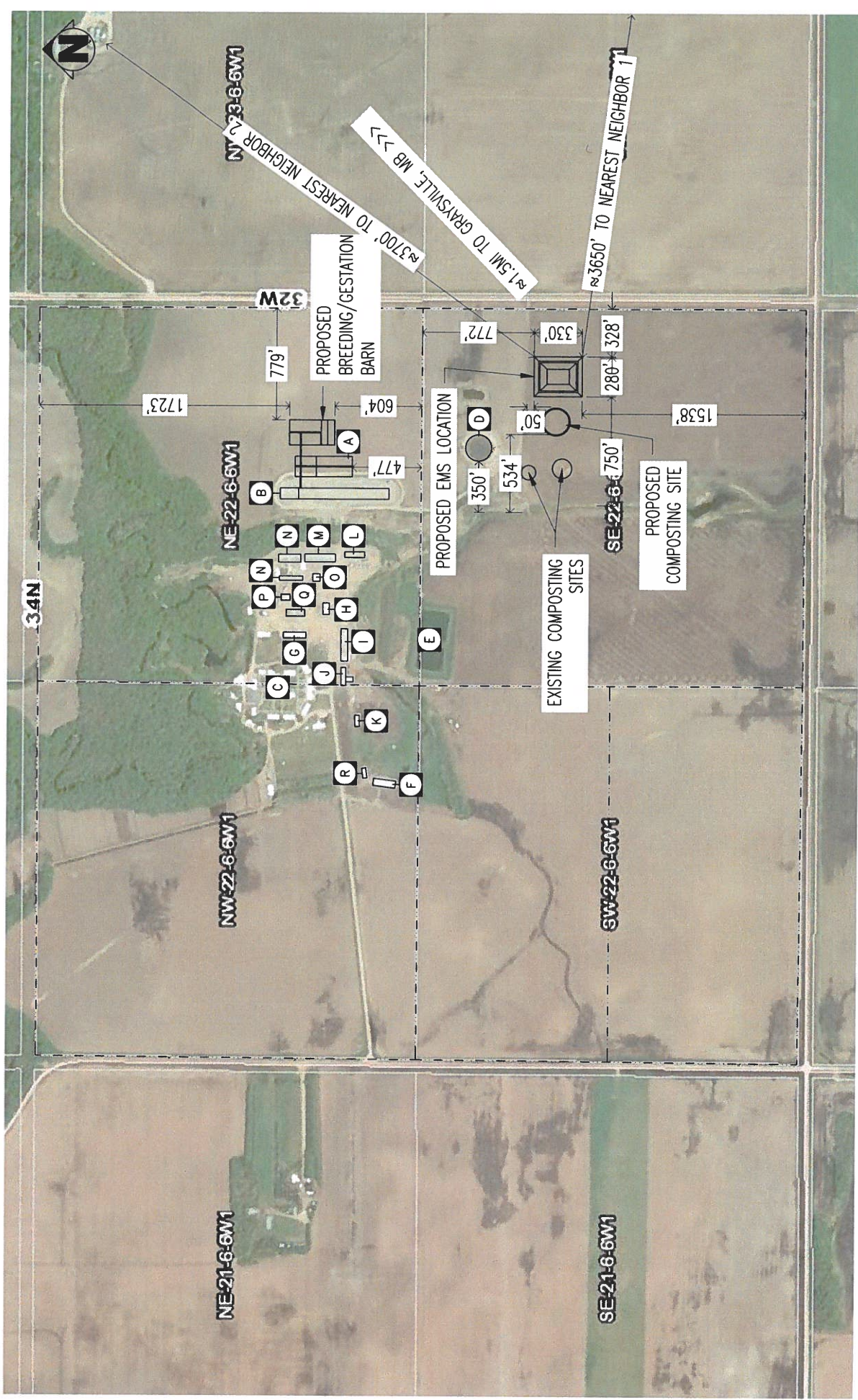
¹ Enter the current number of animals on the farm based on the operation's capacity (animal places) or previous Conditional Use Approval.

² Enter the total number of animals associated with the operation post construction or expansion.

³ There are 2 methods for calculating animal units for dairy (Farm Practices Guidelines for Dairy Producers in Manitoba, 1995). You can enter the total number of mature cows in the milking herd under the "Mature cows (lactating and dry) including associated livestock" category and the animal units will be calculated by multiplying this number by 2. This calculation assumes 85 lactating, 15 dry, 12 heifers (0 to 3 months), 36 heifers (4 to 13 months) and 50 heifers (> 13 months) for an operation with 100 mature cows. "Associated livestock" includes all of the heifer calves and replacement heifers. Alternatively, you can enter animal numbers in the individual categories (mature cows, heifers (0 to 3 months), heifers (4 to 13 months) and heifers (> 13 months)) and they will be summed at the bottom of the table. Bulls and veal calves are always calculated separately.

[For all other livestock or operation types please inquire with the Manitoba Agriculture Contacts](#)





ALPHABETICAL NOTES APPLY ONLY TO THIS SHEET

- A** PROPOSED FINISHER BARN
- B** EXISTING NURSERY/FINISHER BARN
- C** RESIDENTIAL DEVELOPMENT
- D** MANURE STORAGE TANK
- E** WASTEWATER LAGOON
- F** BALE STORAGE SHED
- G** PULLET BARN
- H** MECHANIC SHOP
- I** TRUCK SHOP
- J** COW BARN
- K** COW SHED
- L** EQUIPMENT SHED
- M** GESTATION BARN
- N** FARROWING BARN
- O** COAL BOILER
- P** FEED MILL
- Q** LAYER BARN
- R** STORAGE SHED



8-851 Logimodine Blvd. | Winnipeg, Manitoba | R2J 3K4
 PH: (204) 668-9622 | FAX: (204) 668-2204

PROJECT NAME	ROSEVALLEY HOGS
SHEET TITLE	SITE PLAN
DATE DRAWN	MARCH 2019

BUILDING AREA	N/A
DRAWN BY	R. FLORES SOUTH-MAN ENGINEERING
DRAWING SCALE	SCALED TO FIT
SHEET NUMBER	SP-1

THIS DRAWING IS THE PROPERTY OF SOUTH-MAN ENGINEERING, WINNIPEG, MANITOBA, CANADA.
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Water Requirement Calculation Table

Livestock	Number	IG/day per animal in winter	IG/day per animal in summer	IG/day (Imperial gallons per day)
Beef/Dairy/Bison *				
Feeder/heifer/steer (600 lb.)	4	5	9	36
Feeder (900 lb.)		7	12	-
Feeder (1250 lb.)		10	15	-
Cow/calf pair		12	15	-
Dry milking cow **	1	10	12	12
Lactating cow **	4	25	30	120
Bison		8	10	-
Horses				
Horses		8	11	-
Hogs				
Sow (Farrow/wean)	1,400	6.5		9,100
Dry Sow/Boar		4		-
Feeder	10,800	3		32,400
Nursery (33 lb.)	4,800	2		9,600
Chickens				
Broilers		0.035		-
Roasters/Pullets	10,000	0.04		400
Layers	20,000	0.055		1,100
Breeders		0.07		-
Turkeys				
Turkey Growers		0.13		-
Turkey Heavies		0.16		-
Sheep/Goats				
Sheep/Goats		2		-
Ewes/Does		3		-
Lambs/Kids (90 lb.)		1.6		-
TOTAL (IG/day)				52,768
*** TOTAL with 10% wash water				58,045

^ For beef, dairy, bison and horse enterprises:
Use summer numbers if appropriate for the operation. Otherwise base projections on winter values.
Always use the greater of the two values.

** For intensive Dairy operations, please use the Dairy Barn Water Requirement Estimator found on separate sheet.

*** 10% of the total is added to allow for wash water

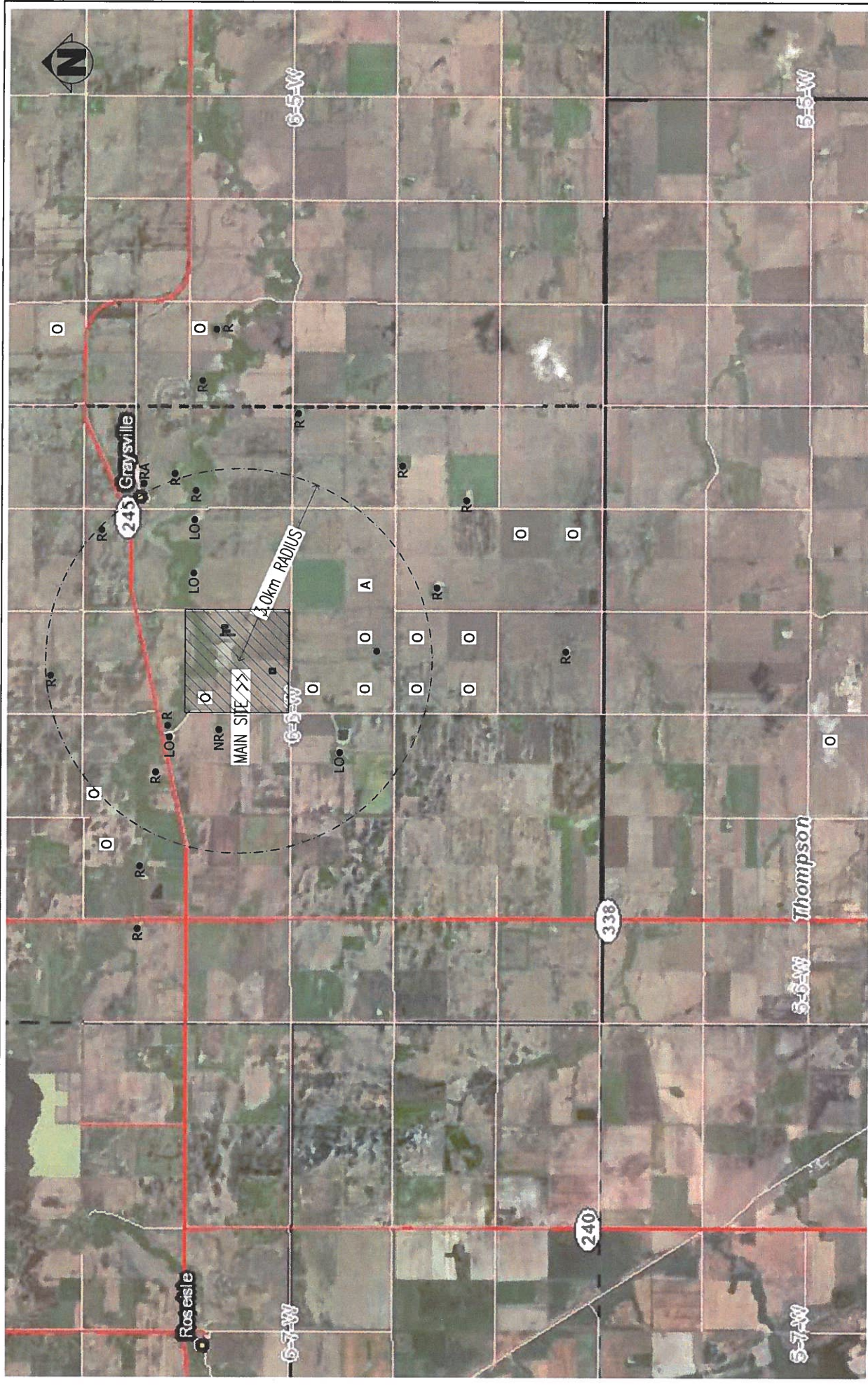
Other consumption:
Normal household consumption:
60-75 IG/day per person or
(272-340 l/day/person)




Enter this number on page 7 of Application Form.

Unit Conversions		
Total per day	Total per year	Unit
58,045	21,186,352	IG
239,883	87,557,415	litres
0.240	88	cubic decametres (dam ³)

Enter this number on page 7 of Application Form.

Conversion Factor: 1 IGPM = 4.546 l/m



- LEGEND:**
-  PROJECT SITE
 -  RESIDENCE
 -  RESIDENTIAL AREA
 -  NEAREST NEIGHBOR (APPROX. 3,828 FT)
 -  3km NOTIFICATION AREA FOR THE PUBLIC CONDITIONAL USE HEARING



South-Man Engineering
 6-851 Lacmillaine Blvd. | Winnipeg, Manitoba | R2J 3K4
 PH: (204) 668-8652 | FAX: (204) 668-2204

PROJECT NAME	ROSEVALLEY HOGS	BUILDING AREA	N/A
SHEET TITLE	LAND USE MAP	DRAWN BY	R. FLORES SOUTH-MAN ENGINEERING
DATE DRAWN	MARCH 2019	DRAWING SCALE	SCALED TO FIT
THIS DRAWING IS THE PROPERTY OF SOUTH-MAN ENGINEERING, WINNIPEG, MANITOBA, CANADA.		SHEET NUMBER	SP-2A

Select Year Range



2009 to 2018

SEARCH

Search Summary

216 records returned

1,451 farm varieties grown on 311,647.1 acres

Average Yield

0.934 Tonnes (41.2 Bushels) per acre

Showing 1 to 50 of 216 entries

Year	Risk Area / R.M.	Crop	Variety	Farms	Acres	Yield/acre (Metric)	Yield/acre (Imperial)
2017	DUFFERIN	ARGENTINE CANOLA	L230 (BAYER) 5CN0125 (LT)	4	540.0	1.329 Tonnes	58.6 Bushels
2018	DUFFERIN	ARGENTINE CANOLA	L140P (INVIGOR) (LT){PSR-R}	9	2,293.0	1.292 Tonnes	57.0 Bushels
2017	DUFFERIN	ARGENTINE CANOLA	L233P (BAYER) 5CN0130 (LT){PSR-R}	13	3,041.0	1.286 Tonnes	56.7 Bushels
2014	DUFFERIN	ARGENTINE CANOLA	L140P (INVIGOR) (LT){PSR-R}	4	505.0	1.266 Tonnes	55.8 Bushels
2018	DUFFERIN	ARGENTINE CANOLA	L255PC (INVIGOR) 6CN0122 (LT) (PSR-R)	4	1,203.0	1.253 Tonnes	55.3 Bushels
2013	DUFFERIN	ARGENTINE CANOLA	1145 (INVIGOR HEALTH) (LT)	8	1,147.0	1.252 Tonnes	55.2 Bushels
2014	DUFFERIN	ARGENTINE CANOLA	L261 (INVIGOR) (LT)	9	1,171.0	1.250 Tonnes	55.1 Bushels
2017	DUFFERIN	ARGENTINE CANOLA	45H75 CL (PIONEER) (ST)	3	582.0	1.225 Tonnes	54.0 Bushels
2018	DUFFERIN	ARGENTINE CANOLA	L233P (BAYER) 5CN0130 (LT){PSR-R}	44	13,580.0	1.209 Tonnes	53.3 Bushels
2014	DUFFERIN	ARGENTINE CANOLA	VR 9560 CL (PROVEN) (ST)	4	786.0	1.208 Tonnes	53.2 Bushels
2014	DUFFERIN	ARGENTINE CANOLA	L252 (INVIGOR) (LT)	24	4,648.0	1.174 Tonnes	51.8 Bushels
2014	DUFFERIN	ARGENTINE CANOLA	5440 (INVIGOR) PHS04-690 (LT)	36	7,068.0	1.164 Tonnes	51.3 Bushels
2017	DUFFERIN	ARGENTINE CANOLA	L252 (INVIGOR) (LT)	37	6,917.0	1.160 Tonnes	51.1 Bushels
2018	DUFFERIN	ARGENTINE CANOLA	L252 (INVIGOR) (LT)	26	5,401.0	1.153 Tonnes	50.8 Bushels
2014	DUFFERIN	ARGENTINE CANOLA	L154 (INVIGOR) (LT)	5	1,000.0	1.150 Tonnes	50.7 Bushels
2018	DUFFERIN	ARGENTINE CANOLA	L230 (BAYER) 5CN0125 (LT)	4	960.0	1.148 Tonnes	50.6 Bushels
2017	DUFFERIN	ARGENTINE CANOLA	L140P (INVIGOR) (LT){PSR-R}	19	4,476.1	1.144 Tonnes	50.4 Bushels
2013	DUFFERIN	ARGENTINE CANOLA	L156H (INVIGOR HEALTH) (LT)	3	1,285.0	1.137 Tonnes	50.1 Bushels
2013	DUFFERIN	ARGENTINE CANOLA	5440 (INVIGOR) PHS04-690 (LT)	36	8,297.0	1.135 Tonnes	50.1 Bushels
2016	DUFFERIN	ARGENTINE CANOLA	L241C (INVIGOR) (LT)	4	954.0	1.118 Tonnes	49.3 Bushels
2013	DUFFERIN	ARGENTINE CANOLA	L154 (INVIGOR) (LT)	14	2,774.0	1.115 Tonnes	49.2 Bushels
2018	DUFFERIN	ARGENTINE CANOLA	46H75 (PIONEER) (ST)	4	612.0	1.113 Tonnes	49.1 Bushels

Select Year Range



2009 to 2018

SEARCH

Search Summary

284 records returned

1,663 farm varieties grown on 258,145.0 acres

Average Yield

3.177 Tonnes (125.1 Bushels) per acre

Showing 1 to 50 of 284 entries

Year	Risk Area / R.M.	Crop	Variety	Farms	Acres	Yield/acre (Metric)	Yield/acre (Imperial)
2017	DUFFERIN	GRAIN CORN	A4939G2 RIB (PRIDE) (RIB)	7	1,728.0	4.382 Tonnes	172.5 Bushels
2016	DUFFERIN	GRAIN CORN	A4939G2 RIB (PRIDE) (RIB)	7	1,410.0	4.333 Tonnes	170.6 Bushels
2016	DUFFERIN	GRAIN CORN	39V09AM (PIONEER) (BT)(HX1)(LT)(RT)	6	576.0	4.161 Tonnes	163.8 Bushels
2017	DUFFERIN	GRAIN CORN	DKC33-78RIB (DEKALB) (RIB)	20	5,632.0	4.145 Tonnes	163.2 Bushels
2016	DUFFERIN	GRAIN CORN	P7958AM (PIONEER)	20	5,176.0	4.084 Tonnes	160.8 Bushels
2016	DUFFERIN	GRAIN CORN	39D97 (PIONEER) (BT)(LT)(RT)	8	1,452.0	4.080 Tonnes	160.6 Bushels
2016	DUFFERIN	GRAIN CORN	P7211HR (PIONEER)	7	1,381.0	4.040 Tonnes	159.0 Bushels
2016	DUFFERIN	GRAIN CORN	TH 7677 VT2P RIB (THUNDER) (RIB)	6	739.0	3.904 Tonnes	153.7 Bushels
2016	DUFFERIN	GRAIN CORN	39V05 (PIONEER) (RT)	13	1,335.0	3.862 Tonnes	152.1 Bushels
2018	DUFFERIN	GRAIN CORN	MZ 1633DBR (MAIZEX) (RT)	3	533.0	3.862 Tonnes	152.0 Bushels
2015	DUFFERIN	GRAIN CORN	P7958AM (PIONEER)	9	2,023.0	3.852 Tonnes	151.6 Bushels
2016	DUFFERIN	GRAIN CORN	P7632AM (PIONEER) (BT)(LT)(RT)	35	7,144.0	3.841 Tonnes	151.2 Bushels
2012	DUFFERIN	GRAIN CORN	39V05 (PIONEER) (RT)	11	2,001.0	3.791 Tonnes	149.3 Bushels
2018	DUFFERIN	GRAIN CORN	DKC33-78RIB (DEKALB) (RIB)	27	8,749.0	3.791 Tonnes	149.3 Bushels
2017	DUFFERIN	GRAIN CORN	39V09AM (PIONEER) (BT)(HX1)(LT)(RT)	6	810.0	3.739 Tonnes	147.2 Bushels
2018	DUFFERIN	GRAIN CORN	DKC35-88RIB (DEKALB) (RIB) (RT)	7	1,685.0	3.739 Tonnes	147.2 Bushels
2013	DUFFERIN	GRAIN CORN	39V07 (PIONEER) (BT)(LT)(RT)	4	1,216.0	3.734 Tonnes	147.0 Bushels
2015	DUFFERIN	GRAIN CORN	DKC26-28RIB (DEKALB) (BT)(RIB)(RT)	5	1,260.0	3.715 Tonnes	146.2 Bushels
2016	DUFFERIN	GRAIN CORN	DKC27-55RIB (DEKALB) (BT)(RIB)	4	900.0	3.713 Tonnes	146.2 Bushels
2017	DUFFERIN	GRAIN CORN	P7632AM (PIONEER) (BT)(LT)(RT)	31	5,616.0	3.705 Tonnes	145.9 Bushels
2013	DUFFERIN	GRAIN CORN	39V05 (PIONEER) (RT)	21	3,370.0	3.685 Tonnes	145.1 Bushels
2012	DUFFERIN	GRAIN CORN	39D97 (PIONEER) (BT)(LT)(RT)	20	5,630.0	3.672 Tonnes	144.6 Bushels

Select Year Range



2009 to 2018

SEARCH

Search Summary

405 records returned

2,159 farm varieties grown on 414,480.1 acres

Average Yield

1.013 Tonnes (37.2 Bushels) per acre

Showing 1 to 50 of 405 entries

Year	Risk Area / R.M.	Crop	Variety	Farms	Acres	Yield/acre (Metric)	Yield/acre (Imperial)
2016	DUFFERIN	SOYBEANS	P006T46R (PIONEER) (RT)	3	800.0	1.475 Tonnes	54.2 Bushels
2016	DUFFERIN	SOYBEANS	24-12RY (DEKALB) (RT)	6	1,666.0	1.427 Tonnes	52.4 Bushels
2016	DUFFERIN	SOYBEANS	P005T13R (PIONEER)(RT)	3	835.0	1.394 Tonnes	51.2 Bushels
2016	DUFFERIN	SOYBEANS	TH 33005R2Y (THUNDER) (RT)	5	795.1	1.370 Tonnes	50.3 Bushels
2016	DUFFERIN	SOYBEANS	25-10RY (DEKALB) (RT)	11	2,815.0	1.337 Tonnes	49.1 Bushels
2016	DUFFERIN	SOYBEANS	P008T22R2 (PIONEER) (RT)	4	880.0	1.310 Tonnes	48.1 Bushels
2016	DUFFERIN	SOYBEANS	TH 34006R2Y (THUNDER) (RT)	9	2,053.0	1.296 Tonnes	47.6 Bushels
2012	DUFFERIN	SOYBEANS	LS 006R21 (LEGEND)	5	660.0	1.283 Tonnes	47.2 Bushels
2016	DUFFERIN	SOYBEANS	23-60RY (DEKALB) (RT)	11	2,959.0	1.281 Tonnes	47.1 Bushels
2016	DUFFERIN	SOYBEANS	S007-Y4 RR2Y (SYNGENTA) (RT)	5	717.0	1.276 Tonnes	46.9 Bushels
2016	DUFFERIN	SOYBEANS	NSC RICHER RR2Y (NSGENETICS) (RT)	16	3,412.0	1.274 Tonnes	46.8 Bushels
2016	DUFFERIN	SOYBEANS	PS 0074 R2 (PRIDE) (RT)	19	3,654.0	1.271 Tonnes	46.7 Bushels
2016	DUFFERIN	SOYBEANS	P008T70R (PIONEER) (RT)	29	4,849.0	1.271 Tonnes	46.7 Bushels
2016	DUFFERIN	SOYBEANS	NSC TILSTON RR2Y (NSGENETICS) (RT)	7	1,056.0	1.257 Tonnes	46.2 Bushels
2016	DUFFERIN	SOYBEANS	GRAY R2 (SECAN) [SC2450R2] (RT)	12	3,621.0	1.245 Tonnes	45.7 Bushels
2013	DUFFERIN	SOYBEANS	NSC RICHER RR2Y (NSGENETICS) (RT)	5	1,399.0	1.221 Tonnes	44.9 Bushels
2016	DUFFERIN	SOYBEANS	24-10RY (DEKALB) (RT)	18	3,654.0	1.221 Tonnes	44.8 Bushels
2015	DUFFERIN	SOYBEANS	P002T04R (PIONEER) (RT)	5	1,305.0	1.215 Tonnes	44.7 Bushels
2015	DUFFERIN	SOYBEANS	24-11RY (DEKALB) (RT)	6	555.0	1.205 Tonnes	44.3 Bushels
2014	DUFFERIN	SOYBEANS	24-61RY (DEKALB) (RT)	9	1,770.0	1.202 Tonnes	44.2 Bushels
2012	DUFFERIN	SOYBEANS	PS 0083 R2 (PRIDE) (RT)	5	528.0	1.195 Tonnes	43.9 Bushels
2016	DUFFERIN	SOYBEANS	AKRAS R2 (BRETT YOUNG) (RT)	9	1,742.0	1.193 Tonnes	43.8 Bushels

Select Year Range



2009 to 2018

SEARCH

Search Summary

94 records returned

935 farm varieties grown on 216,675.1 acres

Average Yield

1.633 Tonnes (60.0 Bushels) per acre

Showing 1 to 50 of 94 entries

Year	Risk Area / R.M.	Crop	Variety	Farms	Acres	Yield/acre (Metric)	Yield/acre (Imperial)
2017	DUFFERIN	RED SPRING WHEAT	AAC ELIE(BW931)	3	680.0	2.297 Tonnes	84.4 Bushels
2017	DUFFERIN	RED SPRING WHEAT	AAC BRANDON (BW 932)	35	11,504.0	2.246 Tonnes	82.5 Bushels
2017	DUFFERIN	RED SPRING WHEAT	CARBERRY (BW874)	4	944.0	2.174 Tonnes	79.9 Bushels
2017	DUFFERIN	RED SPRING WHEAT	CARDALE (BW429)	14	2,358.0	2.174 Tonnes	79.9 Bushels
2014	DUFFERIN	RED SPRING WHEAT	CARDALE (BW429)	18	3,393.0	2.020 Tonnes	74.2 Bushels
2018	DUFFERIN	RED SPRING WHEAT	CARDALE (BW429)	17	2,740.1	1.957 Tonnes	71.9 Bushels
2018	DUFFERIN	RED SPRING WHEAT	AAC ELIE(BW931)	4	961.0	1.951 Tonnes	71.7 Bushels
2009	DUFFERIN	RED SPRING WHEAT	CDC GO (BW781)	3	707.0	1.946 Tonnes	71.5 Bushels
2014	DUFFERIN	RED SPRING WHEAT	HARVEST (BW259)	3	590.0	1.920 Tonnes	70.5 Bushels
2018	DUFFERIN	RED SPRING WHEAT	AAC BRANDON (BW 932)	60	19,127.0	1.903 Tonnes	69.9 Bushels
2012	DUFFERIN	RED SPRING WHEAT	WR859 CL (BW859)	8	1,378.0	1.856 Tonnes	68.2 Bushels
2010	DUFFERIN	RED SPRING WHEAT	CDC GO (BW781)	3	590.0	1.843 Tonnes	67.7 Bushels
2013	DUFFERIN	RED SPRING WHEAT	GLENN	25	5,175.0	1.808 Tonnes	66.4 Bushels
2014	DUFFERIN	RED SPRING WHEAT	AAC BRANDON (BW 932)	4	575.0	1.807 Tonnes	66.4 Bushels
2015	DUFFERIN	RED SPRING WHEAT	GLENN	3	845.0	1.800 Tonnes	66.1 Bushels
2014	DUFFERIN	RED SPRING WHEAT	GLENN	13	2,245.0	1.795 Tonnes	66.0 Bushels
2012	DUFFERIN	RED SPRING WHEAT	CDC GO (BW781)	4	1,308.0	1.781 Tonnes	65.5 Bushels
2014	DUFFERIN	RED SPRING WHEAT	CARBERRY (BW874)	39	12,478.0	1.774 Tonnes	65.2 Bushels
2009	DUFFERIN	RED SPRING WHEAT	GLENN	17	2,917.0	1.771 Tonnes	65.1 Bushels
2014	DUFFERIN	RED SPRING WHEAT	WR859 CL (BW859)	5	500.0	1.754 Tonnes	64.5 Bushels
2013	DUFFERIN	RED SPRING WHEAT	KANE (BW342)	6	662.0	1.737 Tonnes	63.8 Bushels
2015	DUFFERIN	RED SPRING WHEAT	CARDALE (BW429)	44	11,144.0	1.717 Tonnes	63.1 Bushels

1a - Pigs

Operation Name: Rosevalley-manure going into EMS

Operation Type	Storage Type	Volatilization	Animal Numbers (Places)	Average Animal Wt (lb)	N Excreted Per Herd Adjusted for Storage N Loss (lb/yr/herd)	P2O5 Excreted Per Herd Per Year (lb/yr/herd)
Boars (Purchased)	Liquid Uncovered Earthen	30%		465	0	0
Weanlings	Liquid Uncovered Earthen	30%		38	0	0
Growers/Finishers	Liquid Uncovered Earthen	30%		171	0	0
Sows, farrow to 6.2 kg	Liquid Uncovered Earthen	30%		n/a	0	0
Sows, farrow to 28 kg	Liquid Uncovered Earthen	30%		n/a	0	0
Sows, farrow to finish	Liquid Uncovered Earthen	30%	300	n/a	85087	44996

Last Revised April 26, 2018

2 - Crop Rotation

Operation Name:

Rosevalley-manure going into EMS

Crop	Removal		Uptake		Yield	Units	Acreage	Removal		Uptake
	P2O5	N	N	Units				P2O5 (lb)	N (lb)	N (lb)
Alfalfa	13.8	58	58	lb/ton		ton/ac		-	-	-
Barley Grain	0.42	0.97	1.39	lb/bu		bu/ac		-	-	-
Barley Silage	11.8	34.4	34.4	lb/ton		ton/ac		-	-	-
Canola	1.04	1.93	3.19	lb/bu	41.2	bu/ac	950	40706	75540	124857
Corn Grain	0.44	0.97	1.53	lb/bu	125.1	bu/ac	1187	65337	144039	227195
Corn Silage	12.7	31.2	31.2	lb/ton		tons/ac		-	-	-
Dry Edible Beans	1.39	4.17		lb/cwt		cwt/ac		-	-	-
Fababeans	1.79	5.02	8.4	lb/cwt		cwt/ac		-	-	-
Flax	0.65	2.13	2.88	lb/bu		bu/ac		-	-	-
Grass Hay	10	34.2	34.2	lb/ton		tons/ac		-	-	-
Lentils	1.03	3.39	5.08	lb/cwt		cwt/ac		-	-	-
Oats	0.26	0.62	1.07	lb/bu		bu/ac		-	-	-
Pasture (grazed)	10	34.2	34.2	lb/ton	0.5	ton/ac		-	-	-
Peas	0.69	2.34	3.06	lb/bu		bu/ac		-	-	-
Potatoes	0.09	0.32	0.57	lb/cwt		cwt/ac		-	-	-
Rye	0.45	1.06	1.67	lb/bu		bu/ac		-	-	-
Soybeans	0.84	3.87	5.2	lb/bu	37.2	bu/ac	1108	34623	159512	214332
Sunflower	1.1	2.8		lb/cwt		cwt/ac		-	-	-
Wheat - Spring	0.59	1.5	2.11	lb/bu	60	bu/ac	316	11186	28440	40006
Wheat - Winter	0.51	1.04	1.35	lb/bu		bu/ac		-	-	-
Total Acres							3561	151852	407531	606389
Estimated Average Removal/Uptake (lb/ac)								42.6	114.4	170.3
Acres in Hanover and La Broquerie										
Proportion in Hanover or La Broquerie							0%			
Additional Acres										
Crop Planned on Additional Acres										
Total Acreage							3561			

***Notes:** Enter the number of acres that are in the RM's of Hanover or La Broquerie in cell H26.
Additional acres include acres for which crop removal or soil data is limited or unavailable.

3 - Farm Excretion

Operation Name: Rosevalley-manure going into EMS

Species	Animal Category/Operation type	N (lb/year)	P2O5 (lb/year)
Pigs	Boars	0	0
	Weanlings	0	0
	Growers/finishers	0	0
	Sows, farrow to 5 kg	0	0
	Sows, farrow to 23 kg	0	0
	Sows, farrow to finish	85087	44996
Beef	Mature Cows and Bred Heifers, plus associated livestock	0	0
	Feedlot Cattle - long keep	0	0
	Feedlot Cattle - short keep	0	0
	Backgrounders - pasture	0	0
	Backgrounders - confined	0	0
Dairy	Mature Cows, plus assoc livestock	0	0
Sheep	Ewes	0	0
	Replacement Ewes	0	0
	Rams	0	0
	Lambs	0	0
	Ewes, plus assoc livestock	0	0
	Feeder	0	0
Chickens	Broilers	0	0
	Broiler Breeder Pullets	0	0
	Broiler Breeder Hens	0	0
Layers	Layer Pullets	0	0
	Layer Hens	0	0
	Breeder Pullets	0	0
	Breeder Hens	0	0
Turkeys	Broiler Hens (0-9 wks)	0	0
	Hens (0-11 wks)	0	0
	Heavy Hens (0-14 wks)	0	0
	Light Toms (0-12 wks)	0	0
	Toms (0-13 wks)	0	0
	Heavy Toms (0-15 wks)	0	0
	Breeding Hen Growers (0-30 wks)	0	0
	Breeding Hens (30-60 wks)	0	0
	Breeding Tom Grower (0-18 wks)	0	0
	Breeding Tom Grower (0-30 wks)	0	0
Breeding Tom (30-60 wks)	0	0	
Total		85087	44996

Note: Be sure all livestock species on your farm are represented in this table, not just the livestock in the proposed expansion.

4 - Land Base Summary**Operation Name:** Rosevalley-manure going into EMS

Nutrients Excreted	lbs
Nitrogen	85087
Phosphorus (P2O5)	44996
Crop Nutrient Use	
	lb/ac
Crop N Uptake	170.3
Crop Phosphorus (P2O5) Removal	42.6
Operation-specific Phosphorus (P2O5) Credit	85.3
Land Available	
	3561
Land Base Required	
	acres
Acres for Nitrogen	500
Acres for Phosphorus (P2O5)	528
Phosphorus Balance	
	acres
Acres for Phosphorus Balance (1X)	1055

Last revised October 16, 2018

1a - Pigs

Operation Name: Rosevalley-manure going into the tank

Operation Type	Storage Type	Volatilization	Animal Numbers (Places)	Average Animal Wt (lb)	N Excreted Per Herd Adjusted for Storage N Loss (lb/yr/herd)	P2O5 Excreted Per Herd Per Year (lb/yr/herd)
Boars (Purchased)	Liquid Uncovered Earthen	30%		465	0	0
Weanlings	Liquid Uncovered Earthen	30%		38	0	0
Growers/Finishers	Liquid Uncovered Earthen	30%		171	0	0
Sows, farrow to 6.2 kg	Liquid Uncovered Earthen	30%		n/a	0	0
Sows, farrow to 28 kg	Liquid Uncovered Earthen	30%		n/a	0	0
Sows, farrow to finish	Liquid Uncovered Steel/Concrete	10%	1100	n/a	401123	164985

Last Revised April 26, 2018

1c - Dairy

Operation Name: Rosevalley-manure going into the tank

Type	Storage Type	Volatilization	Animal Numbers	N Excreted Per Herd Adjusted for Storage N Loss (lb/yr/herd)	P2O5 Excreted per Herd Per Year (lb/yr/herd)
Mature Cows, plus associated livestock	Liquid Uncovered Steel/Concrete	10%	5	1676	692

Last revised August 20, 2014

1e - Poultry

Operation Name: Rosevalley-manure going into the tank

Species / Commodity	Type of Operation	Storage Type	Volatilization	Bird Places	Weight In (lb)	Weight Out (lb)	Average Weight (lb)	Days on Feed	Cycles per Year	N Excreted Adjusted for N Loss (lb/flock/yr)	P205 Excreted (lb/flock/yr)
Chickens	Broilers	Field Storage	40%		0.05	4.36	2.20	33	7.4	0	0
Chickens	Broiler Breeder Pullets	Field Storage	40%		0.05	4.40	2.23	140	2	0	0
Chickens	Broiler Breeder Hens	Field Storage	40%		4.40	8.67	6.53	273	1	0	0
Eggs	Layer Pullets	Liquid Uncovered Steel/Concrete	10%	10000	0.05	3.04	1.54	133	2	4063	3102
Eggs	Layer Hens	Field Storage	40%	20000	3.03	3.74	3.38	355	1	16400	18778
Eggs	Breeder Pullets	Liquid Covered	10%		0.05	3.04	1.54	133	2	0	0
Eggs	Breeder Hens	Liquid Covered	10%		3.03	3.74	3.38	351	1	0	0
Turkey	Broiler Hens (0-9 wks)	Field Storage	40%		0.06	12.39	6.22	63	4	0	0
Turkey	Hens (0-11 wks)	Field Storage	40%		0.06	16.46	8.26	77	3.5	0	0
Turkey	Heavy Hens (0-14 wks)	Field Storage	40%		0.06	21.19	10.62	98	3	0	0
Turkey	Light Toms (0-12 wks)	Field Storage	40%		0.06	21.19	10.62	84	3	0	0
Turkey	Toms (0-13 wks)	Field Storage	40%		0.06	26.84	13.45	91	3	0	0
Turkey	Heavy Toms (0-15 wks)	Field Storage	40%		0.06	30.29	15.18	105	2.5	0	0
Turkey	Breeding Hen Growers (0-30 wks)	Field Storage	40%		0.06	26.95	13.51	210	1	0	0
Turkey	Breeding Hens (30-60 wks)	Field Storage	40%		26.95	24.95	25.95	210	1	0	0
Turkey	Breeding Tom Grower (0-18 wks)	Field Storage	40%		0.06	33.92	16.99	126	2	0	0
Turkey	Breeding Tom Grower (0-30 wks)	Field Storage	40%		0.06	50.89	25.47	210	1	0	0
Turkey	Breeding Tom (30-60 wks)	Field Storage	40%		50.89	61.86	56.38	210	1	0	0

2 - Crop Rotation

Operation Name:

Rosevalley-manure going into the tank

Crop	Removal		Uptake		Yield	Units	Acreage	Removal		Uptake
	P2O5	N	N	Units				P2O5 (lb)	N (lb)	N (lb)
Alfalfa	13.8	58	58	lb/ton		ton/ac		-	-	-
Barley Grain	0.42	0.97	1.39	lb/bu		bu/ac		-	-	-
Barley Silage	11.8	34.4	34.4	lb/ton		ton/ac		-	-	-
Canola	1.04	1.93	3.19	lb/bu	41.2	bu/ac	950	40706	75540	124857
Corn Grain	0.44	0.97	1.53	lb/bu	125.1	bu/ac	1187	65337	144039	227195
Corn Silage	12.7	31.2	31.2	lb/ton		tons/ac		-	-	-
Dry Edible Beans	1.39	4.17		lb/cwt		cwt/ac		-	-	-
Fababeans	1.79	5.02	8.4	lb/cwt		cwt/ac		-	-	-
Flax	0.65	2.13	2.88	lb/bu		bu/ac		-	-	-
Grass Hay	10	34.2	34.2	lb/ton		tons/ac		-	-	-
Lentils	1.03	3.39	5.08	lb/cwt		cwt/ac		-	-	-
Oats	0.26	0.62	1.07	lb/bu		bu/ac		-	-	-
Pasture (grazed)	10	34.2	34.2	lb/ton	0.5	ton/ac		-	-	-
Peas	0.69	2.34	3.06	lb/bu		bu/ac		-	-	-
Potatoes	0.09	0.32	0.57	lb/cwt		cwt/ac		-	-	-
Rye	0.45	1.06	1.67	lb/bu		bu/ac		-	-	-
Soybeans	0.84	3.87	5.2	lb/bu	37.2	bu/ac	1108	34623	159512	214332
Sunflower	1.1	2.8		lb/cwt		cwt/ac		-	-	-
Wheat - Spring	0.59	1.5	2.11	lb/bu	60	bu/ac	316	11186	28440	40006
Wheat - Winter	0.51	1.04	1.35	lb/bu		bu/ac		-	-	-
Total Acres							3561	151852	407531	606389
Estimated Average Removal/Uptake (lb/ac)								42.6	114.4	170.3
Acres in Hanover and La Broquerie										
Proportion in Hanover or La Broquerie							0%			
Additional Acres										
Crop Planned on Additional Acres										
Total Acreage							3561			

***Notes:**

Enter the number of acres that are in the RM's of Hanover or La Broquerie in cell H26.
 Additional acres include acres for which crop removal or soil data is limited or unavailable.

3 - Farm Excretion

Operation Name: **Rosevalley-manure going into the tank**

Species	Animal Category/Operation type	N (lb/year)	P2O5 (lb/year)
Pigs	Boars	0	0
	Weanlings	0	0
	Growers/finishers	0	0
	Sows, farrow to 5 kg	0	0
	Sows, farrow to 23 kg	0	0
	Sows, farrow to finish	401123	164985
Beef	Mature Cows and Bred Heifers, plus associated livestock	0	0
	Feedlot Cattle - long keep	0	0
	Feedlot Cattle - short keep	0	0
	Backgrounders - pasture	0	0
	Backgrounders - confined	0	0
Dairy	Mature Cows, plus assoc livestock	1676	692
Sheep	Ewes	0	0
	Replacement Ewes	0	0
	Rams	0	0
	Lambs	0	0
	Ewes, plus assoc livestock	0	0
	Feeder	0	0
Chickens	Broilers	0	0
	Broiler Breeder Pullets	0	0
	Broiler Breeder Hens	0	0
Layers	Layer Pullets	4063	3102
	Layer Hens	16400	18778
	Breeder Pullets	0	0
	Breeder Hens	0	0
Turkeys	Broiler Hens (0-9 wks)	0	0
	Hens (0-11 wks)	0	0
	Heavy Hens (0-14 wks)	0	0
	Light Toms (0-12 wks)	0	0
	Toms (0-13 wks)	0	0
	Heavy Toms (0-15 wks)	0	0
	Breeding Hen Growers (0-30 wks)	0	0
	Breeding Hens (30-60 wks)	0	0
	Breeding Tom Grower (0-18 wks)	0	0
	Breeding Tom Grower (0-30 wks)	0	0
Breeding Tom (30-60 wks)	0	0	

Total 423263 187557

Note:

Be sure all livestock species on your farm are represented in this table, not just the livestock in the proposed expansion.

4 - Land Base Summary**Operation Name:****Rosevalley-manure going into the tank**

Nutrients Excreted		lbs
Nitrogen		423263
Phosphorus (P2O5)		187557
Crop Nutrient Use		lb/ac
Crop N Uptake		170.3
Crop Phosphorus (P2O5) Removal		42.6
Operation-specific Phosphorus (P2O5) Credit		85.3
Land Available		3561
Land Base Required		acres
Acres for Nitrogen		2486
Acres for Phosphorus (P2O5)		2199
Phosphorus Balance		acres
Acres for Phosphorus Balance (1X)		4398

Last revised October 16, 2018

Manure Application Field Characteristics Table

Field ID	A Legal description	B Rural Municipality	C O/C/L/A	D Setbacks, including features	E Net acreage for manure application	F Agriculture capability class and subclass	G Soil Phosphorus (ppm Olsen P) 0-6 inches
1	NE 19-6-5W	Dufferin	O	3m; Property line	118	2W, 2M	13
2	SE 31-6-5W	Dufferin	O	3m; Property line	158	2M, 1	15
3	SE 2-6-6W	Dufferin	O	3m; Property line, pond	157	2M, 3M, 5W, 1, 2W-5W	11
4	NE 10-6-6W	Dufferin	O	3m; Property line	158	3MW, 1, 3W, 2M	43
5	NW 10-6-6W	Dufferin	O	3m; Property line	158	3MW, 1, 3W, 2M, 5W	49
6	SE 10-6-6W	Dufferin	O	3m; Property line	158	3MW, 2M, 3N, 5W	41
7	SW 10-6-6W	Dufferin	O	3m; Property line	158	3NW, 3MW, 3W, 2M, 5W	29
8	N1/2 SE 15-6-6W	Dufferin	O	3m; Property line	79	3MW, 2M-3MW	15
9	S1/2 SE 15-6-6W	Dufferin	O	3m; Property line	74	3MW, 2M-3MW	17
10	SW 15-6-6W	Dufferin	O	3m; Property line	158	3MW, 3W, 5W	51
11	NW 15-6-6W	Dufferin	O	3m; Property line	158	3MW, 2M-3MW, 5W	54
12	NW 28-6-6W	Dufferin	O	3m; Property line, shrub	93	2M, 4M-3MW, 3MW-4M	13
13	NE 2-7-6W	Dufferin	O	3m; Property line	158	3W, 3MW, 2M-3MW	10
14	NW 2-7-6W	Dufferin	O	3m; Property line	158	2M-3MW, 3MW, 4M, 5W, 3W	10
15	NW 8-7-6W	Dufferin	O	3m; Property line, marsh	145	3MW, 4M, 4M-5W, 5W, 4W, 4M	31
16	SE 8-7-6W	Dufferin	O	3m; Property line	158	4M, 4W, 3W-3MW, 3MW	19
17	SE 11-7-6W	Dufferin	O	3m; Property line	158	3MW, 2M-3MW	11
18	NE 11-7-6W	Dufferin	O	3m; Property line, pond	155	4M-3MW, 3MW, 3W, 4W	10
19	NW 22-6-6W	Dufferin	O	3m; Property line, shrub	79	3MW, 1,	54

Total net acreage for manure application: 2,638

- Enter the legal description for each parcel of land that will receive manure: Sec, Twp, Rge or River Lot (including parish).
- Identify the Rural Municipality in which the parcel is located.
- Indicate how the land has been secured for manure application: O – Own / C – Crown / L – Lease / A – Agreement. Multiple designations may be used as appropriate (e.g., C/A for Crown lands that are under a spread agreement with the producer that holds the agricultural Crown land lease).
- Enter setbacks from surface water or groundwater features that reduce the land available for manure application; include identification of type of feature (e.g., 8m, Order 3 drain).
- Enter the net acreage available for manure application for the acreage after taking into account setbacks and excluding Class 6, 7 and unimproved organic soils.
- Enter the agriculture capability class and sub-class ratings for the acreage available for manure application.
- Provide soil test results for Phosphorus in ppm Olsen P for soil samples taken at the 0-6 inch depth. Soil test results must be no more than 36 months old and must be completed by an accredited soil-testing laboratory.

Manure Application Field Characteristics Table

Field ID	A Legal description	B Rural Municipality	C O/C/L/A	D Setbacks, including features	E Net acreage for manure application	F Agriculture capability class and subclass	G Soil Phosphorus (ppm Olsen P) 0-6 inches
20	NE 21-5-6W	Thompson	O	3m; Property line	158	2W, 1, 3I, 3N	8
21	SE 25-7-7W	Dufferin	O	3m; Property line, wetland	25	3W, 4M, 3ME-3MW, 4M-3MW	11
22	SW 25-7-7W	Dufferin	O	3m; Property line, buildings, shrubs	145	3MW, 4M, 4M-3MW, 3ME-3M	47
23	NE 29-6-6W	Dufferin	O	3m; Property line, shrubs	128	3MW, 4M-3MW, 51W, 4M	33
24	SW 12-7-6W	Dufferin	O	3m; Property line, shrubs	151	2M-3MW, 3W, 4M, 5W	16
25	NE 2-6-6W	Dufferin	O	3m; Property line	158	1, 2M, 5W	19
26	SW 14-6-6W	Dufferin	A	3m; Property line	158	2M, 3W, 3MW, 2M-3MW	17

Total net acreage for manure application: 923

- A. Enter the legal description for each parcel of land that will receive manure; Sec, Twp, Rge or River Lot (including parish).
- B. Identify the Rural Municipality in which the parcel is located.
- C. Indicate how the land has been secured for manure application: O – Own / C – Crown / L – Lease / A – Agreement. Multiple designations may be used as appropriate (e.g., C/A for Crown lands that are under a spread agreement with the producer that holds the agricultural Crown land lease).
- D. Enter setbacks from surface water or groundwater features that reduce the land available for manure application; include identification of type of feature (e.g., 8m, Order 3 drain).
- E. Enter the net acreage available for manure application for the parcel after taking into account setbacks and excluding Class 6, 7 and unimproved organic soils.
- F. Enter the agriculture capability class and sub-class ratings for the acreage available for manure application.
- G. Provide soil test results for Phosphorus in ppm Olsen P for soil samples taken at the 0-6 inch depth. Soil test results must be no more than 36 months old and must be completed by an accredited soil-testing laboratory.



Manure Application Field Characteristics Table

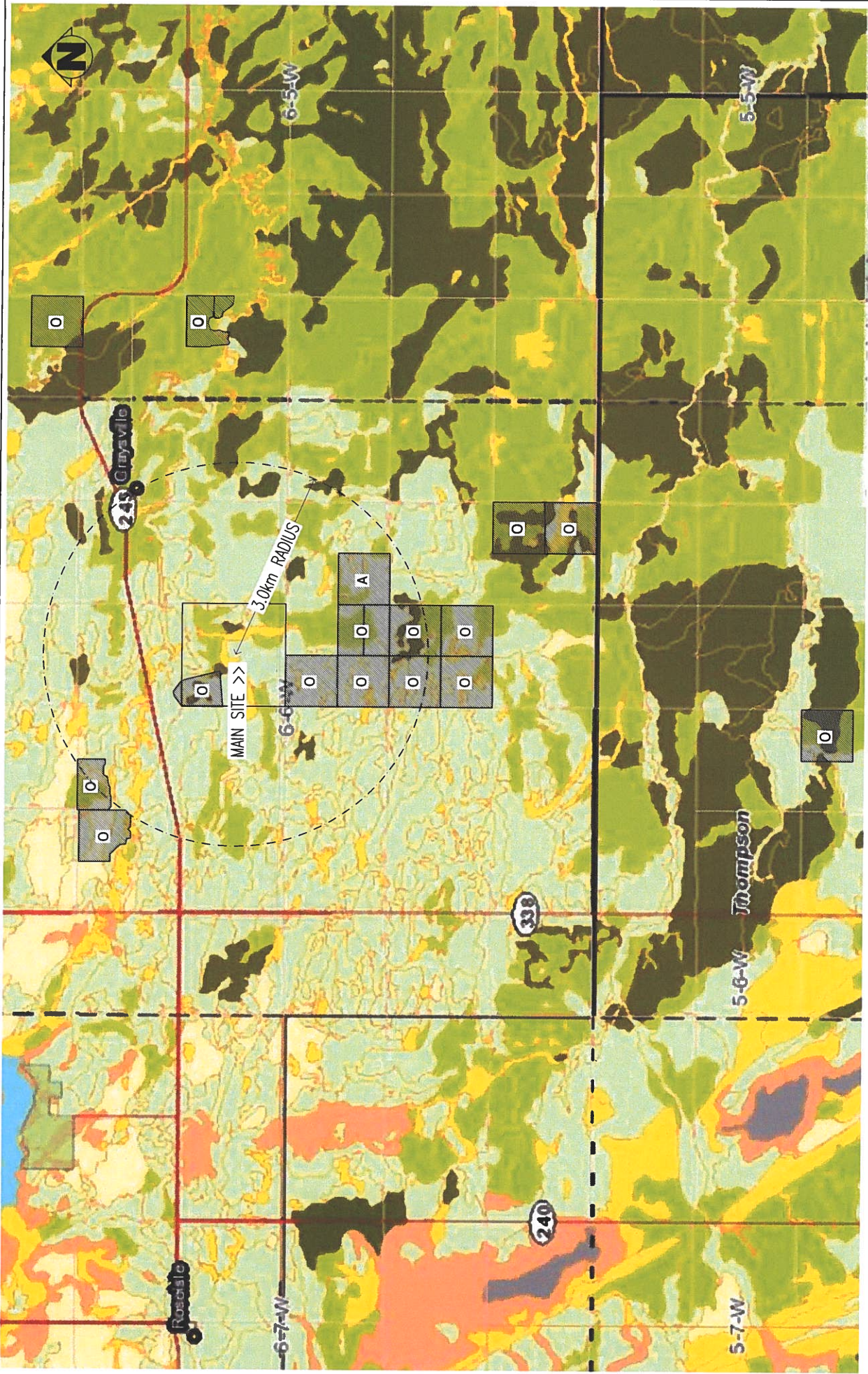
Alternate fields without soil test results

Field ID	A Legal description	B Rural Municipality	C O/C/L/A	D Setbacks, including features	E Net acreage for manure application	F Agriculture capability class and subclass	G Soil Phosphorus (ppm Olsen P) 0-6 inches
1	E1/2 SE 22-6-6W	Dufferin	O	3m; Property line, water	57	2M-3MW, 3MW, 3W, 2M-3MW	
2	W1/2 SE 22-6-6W	Dufferin	O	3m; Property line, water	64	3MW-2M, 2M	
3	SW 22-6-6W	Dufferin	O	3m; Property line	153	3MW-2M, 2M, 3MW	
4	NE 22-6-6W	Dufferin	O	Shrub	56	3W, 3MW, 2M	
5	NE 8-7-6W	Dufferin	O	3m; Property line, shrub	145	3W, 4M, 4W	

Total net acreage for manure application: 475

- A. Enter the legal description for each parcel of land that will receive manure: Sec, Twp, Rge or River Lot (including parish).
- B. Identify the Rural Municipality in which the parcel is located.
- C. Indicate how the land has been secured for manure application: O - Own / C - Crown / L - Lease / A - Agreement. Multiple designations may be used as appropriate (e.g., C/A for Crown lands that are under a spread agreement with the producer that holds the agricultural Crown land lease).
- D. Enter setbacks from surface water or groundwater features that reduce the land available for manure application; include identification of type of feature (e.g., 8m, Order 3 drain).
- E. Enter the net acreage available for manure application for the parcel after taking into account setbacks and excluding Class 6, 7 and unimproved organic soils.
- F. Enter the agriculture capability class and sub-class ratings for the acreage available for manure application.
- G. Provide soil test results for Phosphorus in ppm Olsen P for soil samples taken at the 0-6 inch depth. Soil test results must be no more than 36 months old and must be completed by an accredited soil-testing laboratory.





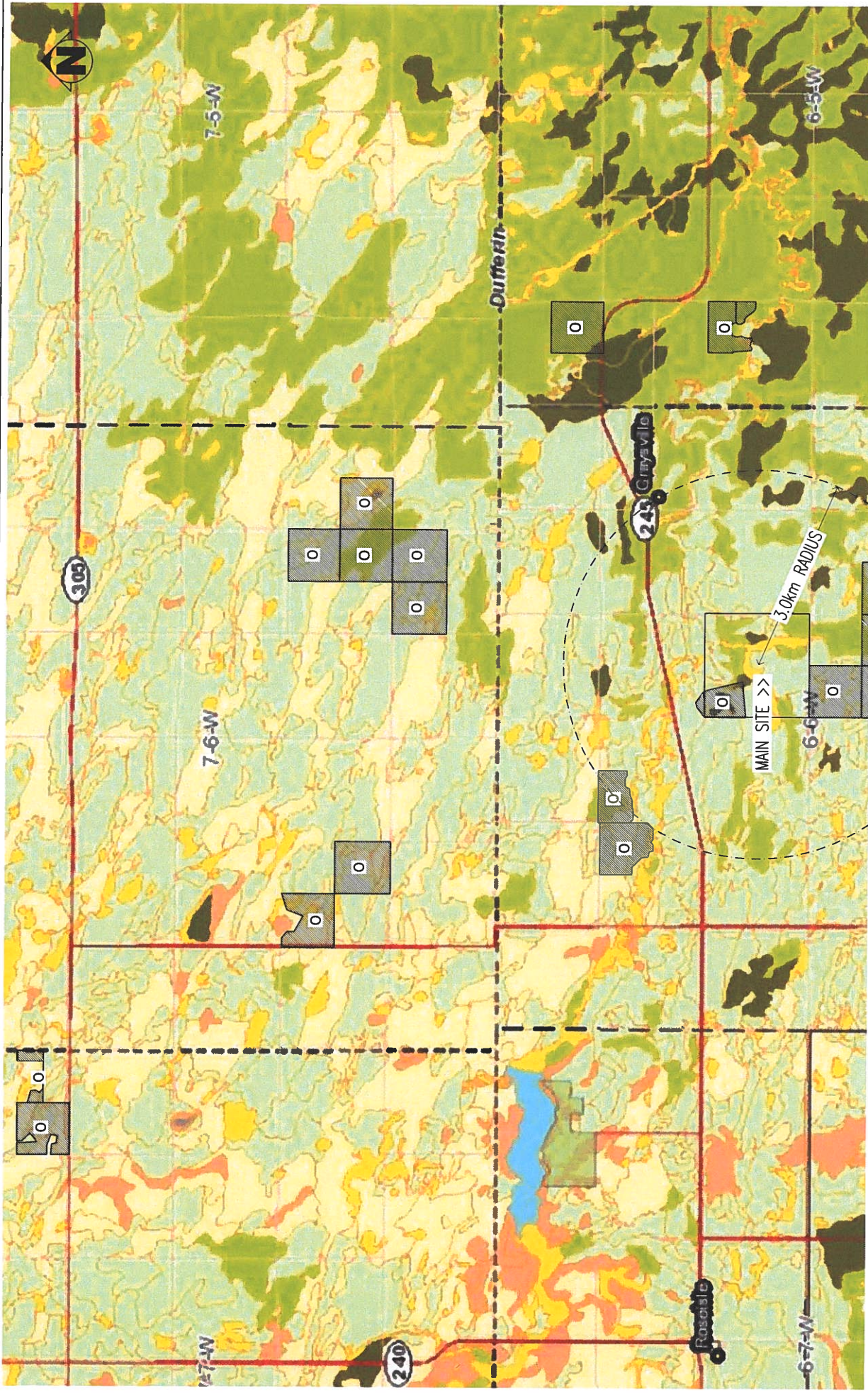
LEGEND:
 LO - LIVESTOCK OPERATIONS
 O - SPREAD FIELDS (OWNED)
 A - SPREAD FIELDS (AGREEMENT)
 - - - - - 3km NOTIFICATION AREA FOR THE PUBLIC
 - - - - - CONDITIONAL USE HEARING

- SOIL CLASS 1
- SOIL CLASS 2
- SOIL CLASS 3
- SOIL CLASS 4
- SOIL CLASS 5



PROJECT NAME	ROSEVALLEY HOGS	BUILDING AREA	N/A
SHEET TITLE	SPREAD FIELD MAP	DRAWN BY	R. FLORES SOUTH-MAN ENGINEERING
DATE DRAWN	MARCH 2019	DRAWING SCALE	SCALED TO FIT
		SHEET NUMBER	SP-2B

THIS DRAWING IS THE PROPERTY OF SOUTH-MAN ENGINEERING, WINNIPEG, MANITOBA, CANADA.
 C:\Users\Richeh\Documents\Rose Valley Colony\Tech Review\ROSEVALLEY COLONY_TECH REVIEW_rev00.dwg



- LEGEND:**
- LO - LIVESTOCK OPERATIONS
 - O - SPREAD FIELDS (OWNED)
 - A - SPREAD FIELDS (AGREEMENT)
 - 3km NOTIFICATION AREA FOR THE PUBLIC CONDITIONAL USE HEARING
- SOIL CLASS 1
 - SOIL CLASS 2
 - SOIL CLASS 3
 - SOIL CLASS 4
 - SOIL CLASS 5

South-Man Engineering
 6-851 Leaside Blvd. | Winnipeg, Manitoba | R2J 3K4
 PH: (204) 668-8632 | FAX: (204) 668-9204

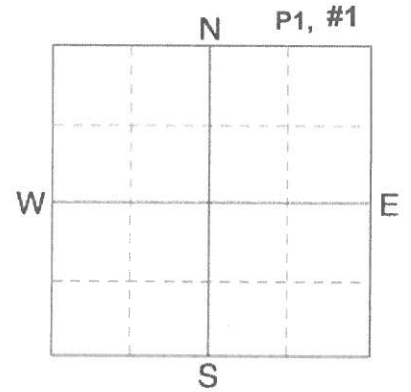
PROJECT NAME	ROSEVALLEY HOGS	BUILDING AREA	N/A
SHEET TITLE	SPREAD FIELD MAP	DRAWN BY	R. FLORES SOUTH-MAN ENGINEERING
DATE DRAWN	MARCH 2019	DRAWING SCALE	SCALED TO FIT
		SHEET NUMBER	SP-2C
THIS DRAWING IS THE PROPERTY OF SOUTH-MAN ENGINEERING, WINNIPEG, MANITOBA, CANADA.			



Soil Analysis by Agvise Laboratories
 (http://www.agvise.com)
 Northwood: (701) 587-6010
 Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID
 SAMPLE ID
 FIELD NAME
 COUNTY **5**
 TWP **6** RANGE
 SECTION **19** QTR **NE** ACRES **120**
 PREV. CROP **Corn-Grain**



SUBMITTED FOR:
ROSE VALLEY COLONY
GRAYSVILLE

SUBMITTED BY: **AG2408**
NAS-CARMAN
HWY 3 SOUTH
BOX 1729
CARMAN, MB **ROG 0JO**

REF # **14007781** BOX # **5488**
 LAB # **NW183308**

Date Sampled

Date Received **11/08/2018**

Date Reported **2/27/2019**

Nutrient In The Soil		Interpretation				1st Crop Choice		2nd Crop Choice		3rd Crop Choice				
		VLow	Low	Med	High									
Nitrate	0-6" 11 lb/ac					Canola-bu		Wheat-Spring		Soybeans				
	6-24" 27 lb/ac					YIELD GOAL		YIELD GOAL		YIELD GOAL				
	0-24" 38 lb/ac					60 BU		80 BU		55 BU				
						SUGGESTED GUIDELINES		SUGGESTED GUIDELINES		SUGGESTED GUIDELINES				
						Band/Maint.		Band/Maint.		Band/Maint.				
Olsen Phosphorus	13 ppm					LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	LB/ACRE	APPLICATION			
Potassium	136 ppm					N	172	N	178	N	***			
Chloride						P ₂ O ₅	54 Band *	P ₂ O ₅	50 Band *	P ₂ O ₅	48 Band *			
Sulfur	0-6" 24 lb/ac 6-24" 120 lb/ac					K ₂ O	27 Band *	K ₂ O	36 Band *	K ₂ O	83 Band *			
Boron						Cl		Cl		Cl				
Zinc	0.84 ppm					S	17 Band	S	0	S	7 Band (Trial)			
Iron						B		B		B				
Manganese						Zn	2 Band (Trial)	Zn	2 Band (Trial)	Zn	2 Band (Trial)			
Copper	0.58 ppm					Fe		Fe		Fe				
Magnesium						Mn		Mn		Mn				
Calcium						Cu	0	Cu	1 Band (Trial)	Cu	0			
Sodium						Mg		Mg		Mg				
Org.Matter	2.3 %					Lime		Lime		Lime				
Carbonate(CCE)						Soil pH		Cation Exchange Capacity		% Base Saturation (Typical Range)				
Sol. Salts	0-6" 0.36 mmho/cm 6-24" 0.35 mmho/cm					Buffer pH				% Ca	% Mg	% K	% Na	% H
						0-6" 7.2								
						6-24" 8.2								

Crop 1: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 54 K2O = 27 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them.

Crop 2: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 50 K2O = 30 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them.

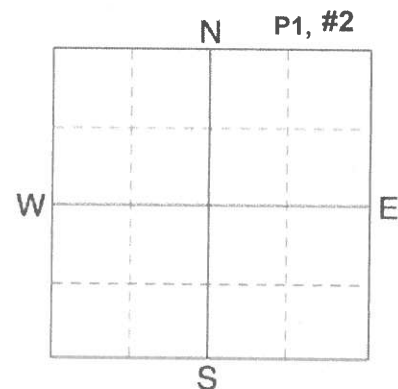
Crop 3: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 48 K2O = 83 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them. Soybeans may respond to nitrogen on fields testing less than 60 lb/ac with a limited soybean history.



Soil Analysis by Agvise Laboratories
 (http://www.agvise.com)
 Northwood: (701) 587-6010
 Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID
 SAMPLE ID
 FIELD NAME
 COUNTY **5**
 TWP **6** RANGE
 SECTION **31** QTR **SE** ACRES **0**
 PREV. CROP **Potatoes**



SUBMITTED FOR:
ROSE VALLEY COLONY
GRAYSVILLE

SUBMITTED BY: **AG2408**
NAS-CARMAN
HWY 3 SOUTH
BOX 1729
CARMAN, MB **ROG 030**

REF # **18726644** BOX # **5484**
 LAB # **NW183313**

Date Sampled

Date Received **11/08/2018**

Date Reported **2/27/2019**

Nutrient In The Soil		Interpretation				1st Crop Choice			2nd Crop Choice			3rd Crop Choice					
		VLow	Low	Med	High	Corn-Grain			Canola-bu			Wheat-Spring					
Nitrate	0-6"					YIELD GOAL			YIELD GOAL			YIELD GOAL					
	6-24"					180 BU			60 BU			80 BU					
	0-24"					SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES					
						Band/Maint.			Band/Maint.			Band/Maint.					
Phosphorus	Olsen 15 ppm	*****				LB/ACRE	APPLICATION		LB/ACRE	APPLICATION		LB/ACRE	APPLICATION				
Potassium	114 ppm	*****				N	185		N	179		N	185				
Chloride						P ₂ O ₅	72	Band *	P ₂ O ₅	54	Band *	P ₂ O ₅	50	Band *			
Sulfur	0-6" 90 lb/ac 6-24" 234 lb/ac	*****				K ₂ O	56	Band *	K ₂ O	37	Band *	K ₂ O	48	Band *			
Boron						Cl			Cl			Cl					
Zinc	1.39 ppm	*****				S	0		S	12	Band	S	0				
Iron						B			B			B					
Manganese						Zn	2	Band (Trial)	Zn	0		Zn	0				
Copper	0.26 ppm	*****				Fe			Fe			Fe					
Magnesium						Mn			Mn			Mn					
Calcium						Cu	1	Band	Cu	1	Band	Cu	3	Band			
Sodium						Mg			Mg			Mg					
Org.Matter	1.8 %	*****				Lime			Lime			Lime					
Carbonate(CCE)						Soil pH			Buffer pH			Cation Exchange Capacity			% Base Saturation (Typical Range)		
Sol. Salts	0-6" 0.36 mmho/cm 6-24" 0.38 mmho/cm	*****				0-6" 7.9						% Ca			% Mg		
						6-24" 8.4						% K			% Na		
												% H					

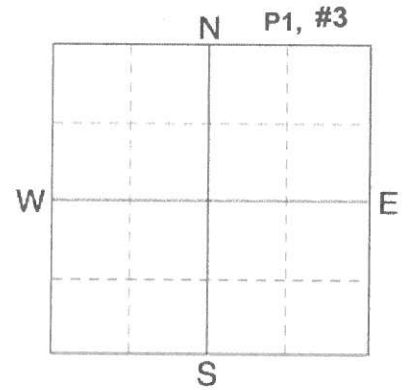
Crop 1: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 72 K2O = 49 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them.
 Crop 2: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 54 K2O = 27 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them.
 Crop 3: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 50 K2O = 30 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them.



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SOIL TEST REPORT

FIELD ID
 SAMPLE ID
 FIELD NAME
 COUNTY **6**
 TWP **6** RANGE
 SECTION **2** QTR **SE** ACRES **160**
 PREV. CROP **Canola-bu**



SUBMITTED FOR:
ROSEVALLEY COLONY
GRAYSVILLE, MB ROG 0JO

SUBMITTED BY: **AG2408**
NAS-CARMAN
HWY 3 SOUTH
BOX 1729
CARMAN, MB ROG 0JO

REF # **18726773** BOX # **2582**
 LAB # **NW63828**

Date Sampled **09/06/2018**

Date Received **09/09/2018**

Date Reported **2/27/2019**

Nutrient In The Soil		Interpretation				1st Crop Choice		2nd Crop Choice		3rd Crop Choice				
		VLow	Low	Med	High									
Nitrate	0-6" 21 lb/ac					Corn-Grain		Wheat-Spring		Soybeans				
	6-24" 30 lb/ac					YIELD GOAL		YIELD GOAL		YIELD GOAL				
	0-24" 51 lb/ac					180 BU		90 BU		55 BU				
						SUGGESTED GUIDELINES		SUGGESTED GUIDELINES		SUGGESTED GUIDELINES				
						Band/Maint.		Band/Maint.		Band/Maint.				
Phosphorus	Olsen 11 ppm					LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	LB/ACRE	APPLICATION			
Potassium	185 ppm					N 165		N 192		N ***				
Chloride						P2O5 72	Band *	P2O5 56	Band *	P2O5 48	Band *			
						K2O 49	Band *	K2O 34	Band *	K2O 83	Band *			
Sulfur	0-6" 120 +lb/ac 6-24" 360 +lb/ac					Cl		Cl		Cl				
Boron						S 0		S 0		S 0				
Zinc	1.43 ppm					B		B		B				
Iron						Zn 2	Band (Trial)	Zn 0		Zn 0				
Manganese						Fe		Fe		Fe				
Copper	0.46 ppm					Mn		Mn		Mn				
Magnesium						Cu 0		Cu 2	Band	Cu 0				
Calcium						Mg		Mg		Mg				
Sodium						Lime		Lime		Lime				
Org.Matter	2.4 %					Soil pH		Cation Exchange Capacity		% Base Saturation (Typical Range)				
Carbonate(CCE)						Buffer pH				% Ca	% Mg	% K	% Na	% H
Sol. Salts	0-6" 0.86 mmho/cm					0-6" 7.5								
	6-24" 0.89 mmho/cm					6-24" 8.1								

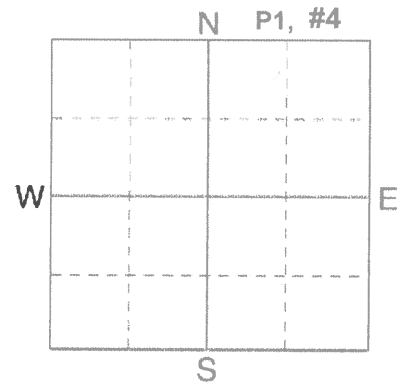
Crop 1: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 72 K2O = 49 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them.
 Crop 2: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 56 K2O = 34 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them.
 Crop 3: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 48 K2O = 83 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them. Soybeans may respond to nitrogen on fields testing less than 60 lb/ac with a limited soybean history.



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 (http://www.agvise.com)
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SOIL TEST REPORT

FIELD ID
 SAMPLE ID
 FIELD NAME
 COUNTY **6**
 TWP **6** RANGE
 SECTION **10** QTR **NE** ACRES **160**
 PREV. CROP **Corn-Grain**



SUBMITTED FOR:
ROSEVALLEY COLONY
GRAYSVILLE, MB ROG OJO

SUBMITTED BY: **AG2408**
NAS-CARMAN
HWY 3 SOUTH
BOX 1729
CARMAN, MB ROG OJO

REF # **18726635** BOX # **5172**
 LAB # **NW179143**

Date Sampled _____ Date Received **11/06/2018** Date Reported **2/27/2019**

Nutrient In The Soil		Interpretation				1st Crop Choice			2nd Crop Choice			3rd Crop Choice				
		VLow	Low	Med	High	Canola-bu			Wheat-Spring			Soybeans				
Nitrate	0-6" 6-24"	*****				YIELD GOAL			YIELD GOAL			YIELD GOAL				
		*****				60 BU			80 BU			55 BU				
	0-24"	*****				SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES				
		*****				Band/Maint.			Band/Maint.			Band/Maint.				
Olsen Phosphorus	43 ppm	*****				LB/ACRE	APPLICATION		LB/ACRE	APPLICATION		LB/ACRE	APPLICATION			
Potassium	208 ppm	*****				N	44		N	50		N	***			
Chloride		*****				P ₂ O ₅	10	Band (Starter)*	P ₂ O ₅	15	Band (Starter)*	P ₂ O ₅	10	Band (Starter)*		
		*****				K ₂ O	27	Band *	K ₂ O	30	Band *	K ₂ O	83	Band *		
Sulfur	0-6" 6-24"	*****				Cl			Cl			Cl				
Boron		*****				S	12	Band	S	0		S	0			
Zinc	4.07 ppm	*****				B			B			B				
Iron		*****				Zn	0		Zn	0		Zn	0			
Manganese		*****				Fe			Fe			Fe				
Copper	0.78 ppm	*****				Mn			Mn			Mn				
Magnesium		*****				Cu	0		Cu	1	Band (Trial)	Cu	0			
Calcium		*****				Mg			Mg			Mg				
Sodium		*****				Lime			Lime			Lime				
Org.Matter	2.5 %	*****				Soil pH			Cation Exchange Capacity			% Base Saturation (Typical Range)				
Carbonate(CCE)		*****				Buffer pH			% Ca	% Mg	% K	% Na	% H			
Sol. Salts	0-6"	*****				0-6"	7.9									
	6-24"	*****				6-24"	8.2									

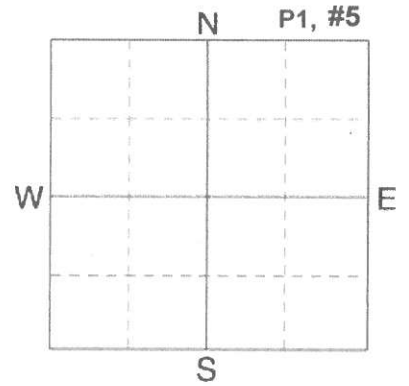
Crop 1: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 54 K2O = 27 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them.
 Crop 2: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 50 K2O = 30 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them.
 Crop 3: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 48 K2O = 83 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them.



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 Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID
 SAMPLE ID
 FIELD NAME
 COUNTY **6**
 TWP **6** RANGE
 SECTION **10** QTR **NW** ACRES **160**
 PREV. CROP **Corn-Grain**



SUBMITTED FOR:
ROSEVALLEY COLONY
GRAYSVILLE, MB **ROG OJO**

SUBMITTED BY: **AG2408**
NAS-CARMAN
HWY 3 SOUTH
BOX 1729
CARMAN, MB **ROG OJO**

REF # **18726636** BOX # **5101**
 LAB # **NW179144**

Date Sampled

Date Received **11/06/2018**

Date Reported **2/27/2019**

Nutrient In The Soil		Interpretation				1st Crop Choice		2nd Crop Choice		3rd Crop Choice				
		VLow	Low	Med	High									
Nitrate	0-6" 19 lb/ac					Canola-bu		Wheat-Spring		Soybeans				
	6-24" 120 lb/ac					YIELD GOAL		YIELD GOAL		YIELD GOAL				
	0-24" 139 lb/ac					60 BU		80 BU		55 BU				
						SUGGESTED GUIDELINES		SUGGESTED GUIDELINES		SUGGESTED GUIDELINES				
						Band/Maint.		Band/Maint.		Band/Maint.				
						LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	LB/ACRE	APPLICATION			
Olsen Phosphorus	49 ppm					N	71	N	77	N	***			
Potassium	261 ppm					P ₂ O ₅	10 Band (Starter)*	P ₂ O ₅	15 Band (Starter)*	P ₂ O ₅	10 Band (Starter)*			
Chloride						K ₂ O	0	K ₂ O	10 Band (Starter)*	K ₂ O	0			
Sulfur	0-6" 120 +lb/ac 6-24" 360 +lb/ac					Cl		Cl		Cl				
Boron						S	12 Band	S	0	S	0			
Zinc	5.08 ppm					B		B		B				
Iron						Zn	0	Zn	0	Zn	0			
Manganese						Fe		Fe		Fe				
Copper	0.91 ppm					Mn		Mn		Mn				
Magnesium						Cu	0	Cu	0	Cu	0			
Calcium						Mg		Mg		Mg				
Sodium						Lime		Lime		Lime				
Org.Matter	2.3 %					Soil pH		Cation Exchange Capacity		% Base Saturation (Typical Range)				
Carbonate(CCE)						Buffer pH				% Ca	% Mg	% K	% Na	% H
Soil Salts	0-6" 0.62 mmho/cm 6-24" 0.96 mmho/cm					0-6" 7.7								
						6-24" 8.2								

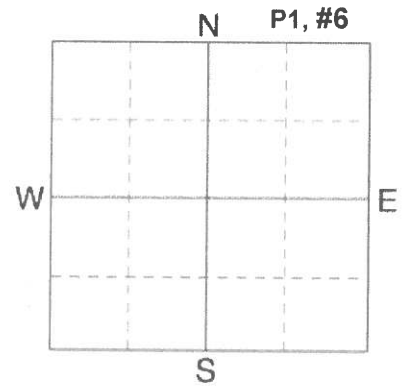
Crop 1: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 54 K2O = 27 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them.
 Crop 2: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 50 K2O = 30 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them.
 Crop 3: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 48 K2O = 83 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them.



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 Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID
 SAMPLE ID
 FIELD NAME
 COUNTY **6**
 TWP **6** RANGE
 SECTION **10** QTR **SE** ACRES **160**
 PREV. CROP **Canola-bu**



SUBMITTED FOR:
ROSEVALLEY COLONY
GRAYSVILLE, MB ROG 0J0

SUBMITTED BY: **AG2408**
NAS-CARMAN
HWY 3 SOUTH
BOX 1729
CARMAN, MB ROG 0J0

REF # **18726774** BOX # **2485**
 LAB # **NW63829**

Date Sampled **09/06/2018**

Date Received **09/09/2018**

Date Reported **2/27/2019**

Nutrient In The Soil		Interpretation				1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
		VLow	Low	Med	High	Corn-Grain			Wheat-Spring			Soybeans		
Nitrate	0-6"	*****				YIELD GOAL			YIELD GOAL			YIELD GOAL		
	6-24"	*****				180 BU			90 BU			55 BU		
	0-24"	*****				SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
		*****				Band/Maint.			Band/Maint.			Band/Maint.		
Phosphorus	Olsen 41 ppm	*****				LB/ACRE	APPLICATION		LB/ACRE	APPLICATION		LB/ACRE	APPLICATION	
Potassium	207 ppm	*****				N	136		N	163		N	***	
Chloride		*****				P ₂ O ₅	15	Band (2x2) *	P ₂ O ₅	15	Band (Starter) *	P ₂ O ₅	10	Band (Starter) *
Sulfur	0-6" 120 +lb/ac 6-24" 360 +lb/ac	*****				K ₂ O	49	Band *	K ₂ O	34	Band *	K ₂ O	83	Band *
Boron		*****				Cl			Cl			Cl		
Zinc	4.02 ppm	*****				S	0		S	0		S	0	
Iron		*****				B			B			B		
Manganese		*****				Zn	0		Zn	0		Zn	0	
Copper	0.58 ppm	*****				Fe			Fe			Fe		
Magnesium		*****				Mn			Mn			Mn		
Calcium		*****				Cu	0		Cu	1	Band (Trial)	Cu	0	
Sodium		*****				Mg			Mg			Mg		
Org.Matter	2.4 %	*****				Lime			Lime			Lime		
Carbonate(CCE)		*****				Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)					
Sol. Salts	0-6" 1.09 mmho/cm 6-24" 1.79 mmho/cm	*****				0-6" 7.5			% Ca	% Mg	% K	% Na	% H	
		*****				6-24" 8.1								

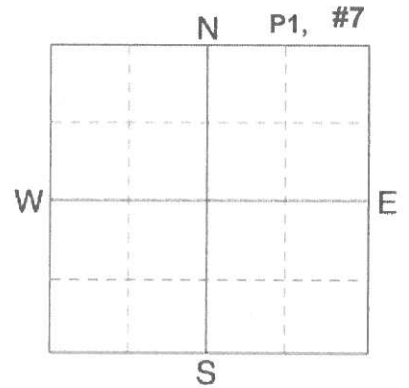
Crop 1: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 72 K2O = 49 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them.
 Crop 2: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 56 K2O = 34 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them.
 Crop 3: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 48 K2O = 83 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them.



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 Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID
 SAMPLE ID
 FIELD NAME
 COUNTY **6**
 TWP **6** RANGE
 SECTION **10** QTR **SW** ACRES **160**
 PREV. CROP **Canola-bu**



SUBMITTED FOR:
ROSEVALLEY COLONY
GRAYSVILLE, MB **ROG OJO**

SUBMITTED BY: **AG2408**
NAS-CARMAN
HWY 3 SOUTH
BOX 1729
CARMAN, MB **ROG OJO**

REF # **18726775** BOX # **2590**
 LAB # **NW63830**

Date Sampled **09/06/2018**

Date Received **09/09/2018**

Date Reported **2/27/2019**

Nutrient In The Soil		Interpretation				1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
		VLow	Low	Med	High	Corn-Grain			Wheat-Spring			Soybeans		
Nitrate	0-6"	*****				YIELD GOAL			YIELD GOAL			YIELD GOAL		
	6-24"	*****				180 BU			90 BU			55 BU		
	0-24"	*****				SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
Olsen		*****				Band/Maint.			Band/Maint.			Band/Maint.		
Phosphorus	29 ppm	*****				LB/ACRE	APPLICATION		LB/ACRE	APPLICATION		LB/ACRE	APPLICATION	
Potassium	183 ppm	*****				N	149		N	176		N	***	
Chloride	0-6" 6-24"	*****				P ₂ O ₅	72	Band *	P ₂ O ₅	56	Band *	P ₂ O ₅	48	Band *
		*****				K ₂ O	49	Band *	K ₂ O	34	Band *	K ₂ O	83	Band *
Sulfur	120 +lb/ac 360 +lb/ac	*****				Cl			Cl			Cl		
Boron		*****				S	0		S	0		S	0	
Zinc	3.72 ppm	*****				B			B			B		
Iron		*****				Zn	0		Zn	0		Zn	0	
Manganese		*****				Fe			Fe			Fe		
Copper	0.53 ppm	*****				Mn			Mn			Mn		
Magnesium		*****				Cu	0		Cu	1	Band (Trial)	Cu	0	
Calcium		*****				Mg			Mg			Mg		
Sodium		*****				Lime			Lime			Lime		
Org.Matter	2.5 %	*****				Soil pH			Cation Exchange Capacity			% Base Saturation (Typical Range)		
Carbonate(CCE)		*****				Buffer pH			% Ca	% Mg	% K	% Na	% H	
Sol. Salts	0-6"	*****				0-6"	7.2							
	6-24"	*****				6-24"	8.1							

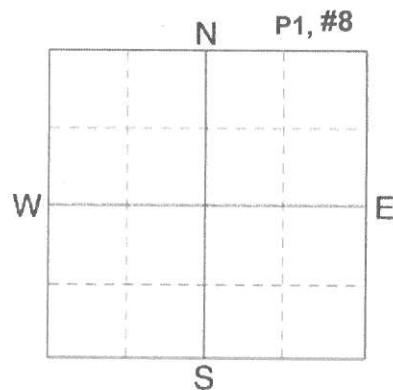
Crop 1: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P205 = 72 K2O = 49 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them.
Crop 2: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P205 = 56 K2O = 34 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them.
Crop 3: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P205 = 48 K2O = 83 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them.



Soil Analysis by Agvise Laboratories
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 Northwood: (701) 587-6010
 Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID
 SAMPLE ID
 FIELD NAME
 COUNTY **6**
 TWP **6** RANGE
 SECTION **15** QTRSE ACRES **80**
 PREV. CROP **Corn-Grain**



SUBMITTED FOR:
ROSEVALLEY COLONY
GRAYSVILLE, MB **ROG OJO**

SUBMITTED BY: **AG2408**
NAS-CARMAN
HWY 3 SOUTH
BOX 1729
CARMAN, MB **ROG OJO**

REF # **18726633** BOX # **5102**
 LAB # **NW179139**

Date Sampled _____ Date Received **11/06/2018** Date Reported **2/27/2019**

Nutrient In The Soil		Interpretation				1st Crop Choice			2nd Crop Choice			3rd Crop Choice				
		VLow	Low	Med	High	Canola-bu			Wheat-Spring			Soybeans				
Nitrate	0-6"					YIELD GOAL			YIELD GOAL			YIELD GOAL				
	6-24"					60 BU			80 BU			55 BU				
	0-24"					SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES				
Olsen	15 ppm					Band/Maint.			Band/Maint.			Band/Maint.				
Phosphorus	184 ppm					LB/ACRE	APPLICATION		LB/ACRE	APPLICATION		LB/ACRE	APPLICATION			
Potassium	184 ppm					N	151		N	157		N	***			
Chloride	0-6"					P ₂ O ₅	54	Band *	P ₂ O ₅	50	Band *	P ₂ O ₅	48	Band *		
	6-24"					K ₂ O	27	Band *	K ₂ O	30	Band *	K ₂ O	83	Band *		
Sulfur	74 lb/ac					Cl			Cl			Cl				
Boron	342 lb/ac					S	12	Band	S	0		S	0			
Zinc	1.57 ppm					B			B			B				
Iron						Zn	0		Zn	0		Zn	0			
Manganese						Fe			Fe			Fe				
Copper	0.43 ppm					Mn			Mn			Mn				
Magnesium						Cu	0		Cu	2	Band	Cu	0			
Calcium						Mg			Mg			Mg				
Sodium						Lime			Lime			Lime				
Org.Matter	2.0 %					Soil pH			Cation Exchange Capacity			% Base Saturation (Typical Range)				
Carbonate(CCE)						Buffer pH					% Ca	% Mg	% K	% Na	% H	
Sol. Salts	0-6"					0-6"	8.0									
	6-24"					6-24"	8.3									

Crop 1: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 54 K2O = 27 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them.

Crop 2: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 50 K2O = 30 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them.

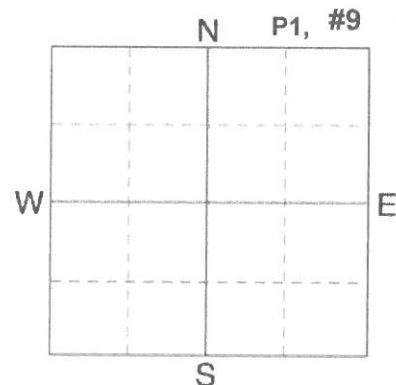
Crop 3: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 48 K2O = 83 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them. Soybeans may respond to nitrogen on fields testing less than 60 lb/ac with a limited soybean history.



Soil Analysis by Agvise Laboratories
 (http://www.agvise.com)
 Northwood: (701) 587-6010
 Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID
 SAMPLE ID
 FIELD NAME
 COUNTY **6**
 TWP **6** RANGE
 SECTION **15** QTRSE ACRES **75**
 PREV. CROP **Corn-Grain**



SUBMITTED FOR:
ROSEVALLEY COLONY
GRAYSVILLE, MB ROG OJO

SUBMITTED BY: **AG2408**
NAS-CARMAN
HWY 3 SOUTH
BOX 1729
CARMAN, MB ROG OJO

REF # **18726634** BOX # **5172**
 LAB # **NW179142**

Date Sampled

Date Received **11/06/2018**

Date Reported **2/27/2019**

Nutrient In The Soil		Interpretation				1st Crop Choice			2nd Crop Choice			3rd Crop Choice				
		vLow	Low	Med	High	Canola-bu			Wheat-Spring			Soybeans				
Nitrate	0-6"					YIELD GOAL			YIELD GOAL			YIELD GOAL				
	6-24"					60 BU			80 BU			55 BU				
	0-24"					SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES				
						Band/Maint.			Band/Maint.			Band/Maint.				
Phosphorus	Olsen 17 ppm					LB/ACRE	APPLICATION		LB/ACRE	APPLICATION		LB/ACRE	APPLICATION			
Potassium	140 ppm					N	145		N	151		N	***			
Chloride						P ₂ O ₅	54	Band *	P ₂ O ₅	50	Band *	P ₂ O ₅	48	Band *		
						K ₂ O	27	Band *	K ₂ O	34	Band *	K ₂ O	83	Band *		
Sulfur	0-6" 120 +lb/ac 6-24" 360 +lb/ac					Cl			Cl			Cl				
Boron						S	12	Band	S	0		S	0			
Zinc	0.95 ppm					B			B			B				
Iron						Zn	2	Band (Trial)	Zn	2	Band (Trial)	Zn	2	Band (Trial)		
Manganese						Fe			Fe			Fe				
Copper	0.35 ppm					Mn			Mn			Mn				
Magnesium						Cu	0		Cu	2	Band	Cu	0			
Calcium						Mg			Mg			Mg				
Sodium						Lime			Lime			Lime				
Org.Matter	2.6 %					Soil pH			Cation Exchange Capacity			% Base Saturation (Typical Range)				
Carbonate(CCE)						Buffer pH					% Ca	% Mg	% K	% Na	% H	
Sol. Salts	0-6"					0-6"	8.0									
	6-24"					6-24"	8.2									

Crop 1: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 54 K2O = 27 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them.

Crop 2: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 50 K2O = 30 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them.

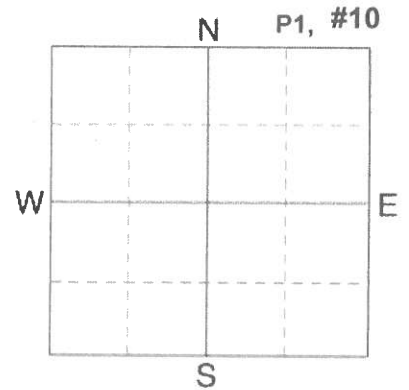
Crop 3: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 48 K2O = 83 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them.



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SOIL TEST REPORT

FIELD ID
 SAMPLE ID
 FIELD NAME
 COUNTY **6**
 TWP **6** RANGE
 SECTION **15** QTR **SW** ACRES **160**
 PREV. CROP **Canola-bu**



SUBMITTED FOR:
ROSEVALLEY COLONY
GRAYSVILLE, MB **ROG OJO**

SUBMITTED BY: **AG2408**
NAS-CARMAN
HWY 3 SOUTH
BOX 1729
CARMAN, MB **ROG OJO**

REF # **18726776** BOX # **2629**
 LAB # **NW63831**

Date Sampled **09/06/2018**

Date Received **09/09/2018**

Date Reported **2/27/2019**

Nutrient In The Soil		Interpretation				1st Crop Choice			2nd Crop Choice			3rd Crop Choice							
		VLow	Low	Med	High	Corn-Grain			Wheat-Spring			Soybeans							
Nitrate	0-6" 37 lb/ac					YIELD GOAL			YIELD GOAL			YIELD GOAL							
	6-24" 75 lb/ac					180 BU			90 BU			55 BU							
	0-24" 112 lb/ac					SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES							
						Band/Maint.			Band/Maint.			Band/Maint.							
Olsen Phosphorus	51 ppm					LB/ACRE	APPLICATION		LB/ACRE	APPLICATION		LB/ACRE	APPLICATION						
Potassium	256 ppm					N	104		N	131		N	***						
Chloride						P ₂ O ₅	15	Band (2x2) *	P ₂ O ₅	15	Band (Starter) *	P ₂ O ₅	10	Band (Starter) *					
Sulfur	0-6" 46 lb/ac 6-24" 162 lb/ac					K ₂ O	10	Band (2x2) *	K ₂ O	10	Band (Starter) *	K ₂ O	0						
Boron						Cl			Cl			Cl							
Zinc	5.36 ppm					S	0		S	0		S	0						
Iron						B			B			B							
Manganese						Zn	0		Zn	0		Zn	0						
Copper	0.88 ppm					Fe			Fe			Fe							
Magnesium						Mn			Mn			Mn							
Calcium						Cu	0		Cu	0		Cu	0						
Sodium						Mg			Mg			Mg							
Org.Matter	2.1 %					Lime			Lime			Lime							
Carbonate(CCE)						Soil pH			Buffer pH			Cation Exchange Capacity			% Base Saturation (Typical Range)				
Sol. Salts	0-6" 0.55 mmho/cm 6-24" 0.52 mmho/cm					0-6" 8.1			6-24" 8.6						% Ca	% Mg	% K	% Na	% H

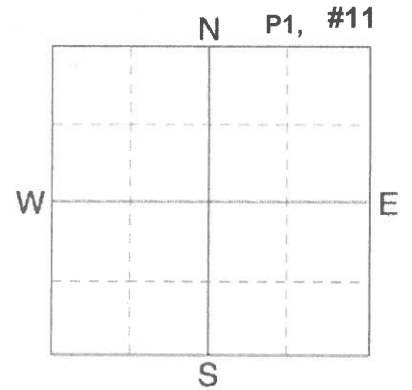
Crop 1: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 72 K2O = 49 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them.
 Crop 2: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 56 K2O = 34 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them.
 Crop 3: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 48 K2O = 83 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them.



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SOIL TEST REPORT

FIELD ID
 SAMPLE ID
 FIELD NAME
 COUNTY **6**
 TWP **6** RANGE
 SECTION **15** QTR **NW** ACRES **160**
 PREV. CROP **Soybeans**



SUBMITTED FOR:
ROSEVALLEY COLONY
GRAYSVILLE, MB ROG OJO

SUBMITTED BY: AG2408
NAS-CARMAN
HWY 3 SOUTH
BOX 1729
CARMAN, MB ROG OJO

REF # **18726637** BOX # **5130**
 LAB # **NW179147**

Date Sampled _____ Date Received **11/06/2018** Date Reported **2/27/2019**

Nutrient In The Soil		Interpretation				1st Crop Choice			2nd Crop Choice			3rd Crop Choice							
		VLow	Low	Med	High	Wheat-Spring			Corn-Grain			Canola-bu							
Nitrate	0-6" 10 lb/ac					YIELD GOAL			YIELD GOAL			YIELD GOAL							
	6-24" 63 lb/ac					80 BU			180 BU			60 BU							
	0-24" 73 lb/ac					SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES							
						Band/Maint.			Band/Maint.			Band/Maint.							
Olsen Phosphorus	54 ppm					LB/ACRE	APPLICATION		LB/ACRE	APPLICATION		LB/ACRE	APPLICATION						
Potassium	289 ppm					N	128		N	113		N	122						
Chloride						P ₂ O ₅	15	Band (Starter)*	P ₂ O ₅	15	Band (2x2)*	P ₂ O ₅	10	Band (Starter)*					
Sulfur	0-6" 58 lb/ac 6-24" 258 lb/ac					K ₂ O	10	Band (Starter)*	K ₂ O	10	Band (2x2)*	K ₂ O	0						
Boron						Cl			Cl			Cl							
Zinc	4.32 ppm					S	0		S	0		S	12	Band					
Iron						B			B			B							
Manganese						Zn	0		Zn	0		Zn	0						
Copper	1.05 ppm					Fe			Fe			Fe							
Magnesium						Mn			Mn			Mn							
Calcium						Cu	0		Cu	0		Cu	0						
Sodium						Mg			Mg			Mg							
Org.Matter	1.7 %					Lime			Lime			Lime							
Carbonate(CCE)						Soil pH			Buffer pH			Cation Exchange Capacity			% Base Saturation (Typical Range)				
Sol. Salts	0-6" 0.34 mmho/cm					0-6" 7.8									% Ca	% Mg	% K	% Na	% H
	6-24" 0.42 mmho/cm					6-24" 8.3													

Crop 1: * Caution: Seed Placed Fertilizer Can Cause Injury * Nitrogen is credited 15 lbs for the previous crop. Nitrogen credits may need to be adjusted based on local conditions. Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 50 K2O = 30 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them.

Crop 2: * Caution: Seed Placed Fertilizer Can Cause Injury * Nitrogen is credited 30 lbs for the previous crop. Nitrogen credits may need to be adjusted based on local conditions. Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 72 K2O = 49 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them.

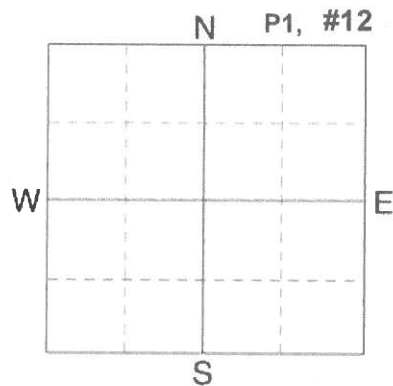
Crop 3: * Caution: Seed Placed Fertilizer Can Cause Injury * Nitrogen is credited 15 lbs for the previous crop. Nitrogen credits may need to be adjusted based on local conditions. Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 54 K2O = 27 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them.



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SOIL TEST REPORT

FIELD ID
 SAMPLE ID
 FIELD NAME
 COUNTY **6**
 TWP **6** RANGE
 SECTION **28** QTR **NW** ACRES **95**
 PREV. CROP **Canola-bu**



SUBMITTED FOR:
ROSEVALLEY COLONY
GRAYSVILLE, MB **ROG OJO**

SUBMITTED BY: **AG2408**
NAS-CARMAN
HWY 3 SOUTH
BOX 1729
CARMAN, MB **ROG OJO**

REF # **18726777** BOX # **2511**
 LAB # **NW63825**

Date Sampled **09/06/2018** Date Received **09/09/2018** Date Reported **2/27/2019**

Nutrient In The Soil		Interpretation				1st Crop Choice		2nd Crop Choice		3rd Crop Choice				
		VLow	Low	Med	High									
Nitrate	0-6" 8 lb/ac					Corn-Grain		Wheat-Spring		Soybeans				
	6-24" 3 lb/ac					YIELD GOAL		YIELD GOAL		YIELD GOAL				
	0-24" 11 lb/ac	**				180 BU		90 BU		55 BU				
						SUGGESTED GUIDELINES		SUGGESTED GUIDELINES		SUGGESTED GUIDELINES				
Olsen Phosphorus	13 ppm	*****				Band/Maint.		Band/Maint.		Band/Maint.				
Potassium	152 ppm	*****				LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	LB/ACRE	APPLICATION			
Chloride	0-6" 100 lb/ac					N	205	N	232	N	***			
	6-24" 66 lb/ac	*****				P ₂ O ₅	72 Band *	P ₂ O ₅	56 Band *	P ₂ O ₅	48 Band *			
Sulfur						K ₂ O	49 Band *	K ₂ O	34 Band *	K ₂ O	83 Band *			
Boron						Cl		Cl		Cl				
Zinc	1.21 ppm	*****				S	0	S	0	S	0			
Iron						B		B		B				
Manganese						Zn	3 Band (Trial)	Zn	0	Zn	0			
Copper	0.3 ppm	*****				Fe		Fe		Fe				
Magnesium						Mn		Mn		Mn				
Calcium						Cu	1 Band	Cu	3 Band	Cu	1 Band			
Sodium						Mg		Mg		Mg				
Org.Matter	2.1 %	*****				Lime		Lime		Lime				
Carbonate(CCE)						Soil pH		Cation Exchange Capacity		% Base Saturation (Typical Range)				
Sol. Salts	0-6" 0.44 mmho/cm					Buffer pH				% Ca	% Mg	% K	% Na	% H
	6-24" 0.27 mmho/cm	*****				0-6" 8.1								
						6-24" 8.5								

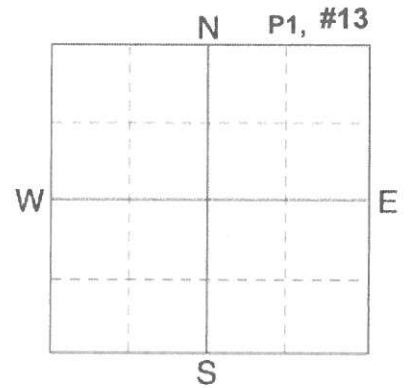
Crop 1: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 72 K2O = 49 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them.
 Crop 2: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 56 K2O = 34 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them.
 Crop 3: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 48 K2O = 83 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them. Soybeans may respond to nitrogen on fields testing less than 60 lb/ac with a limited soybean history.



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 Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID
 SAMPLE ID
 FIELD NAME
 COUNTY **6**
 TWP **7** RANGE
 SECTION **2** QTR **NE** ACRES **160**
 PREV. CROP **Corn-Grain**



SUBMITTED FOR:
ROSE VALLEY COLONY
GRAYSVILLE

SUBMITTED BY: AG2408
NAS-CARMAN
HWY 3 SOUTH
BOX 1729
CARMAN, MB **ROG 0JO**

REF # **18726642** BOX # **5488**
 LAB # **NW183311**

Date Sampled _____ Date Received **11/08/2018** Date Reported **2/27/2019**

Nutrient In The Soil		Interpretation				1st Crop Choice			2nd Crop Choice			3rd Crop Choice				
		VLow	Low	Med	High	Canola-bu			Wheat-Spring			Soybeans				
Nitrate	0-6"					YIELD GOAL			YIELD GOAL			YIELD GOAL				
	6-24"	8 lb/ac				60 BU			80 BU			55 BU				
	0-24"	23 lb/ac	*****			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES				
						Band/Maint.			Band/Maint.			Band/Maint.				
Phosphorus	Olsen 10 ppm	*****				LB/ACRE	APPLICATION		LB/ACRE	APPLICATION		LB/ACRE	APPLICATION			
Potassium	127 ppm	*****				N	187		N	193		N	***			
Chloride						P ₂ O ₅	54	Band *	P ₂ O ₅	50	Band *	P ₂ O ₅	48	Band *		
Sulfur	0-6" 24 lb/ac 6-24" 90 lb/ac	*****				K ₂ O	29	Band *	K ₂ O	41	Band *	K ₂ O	83	Band *		
Boron						Cl			Cl			Cl				
Zinc	1.49 ppm	*****				S	17	Band	S	0		S	7	Band (Trial)		
Iron						B			B			B				
Manganese						Zn	0		Zn	0		Zn	0			
Copper	0.41 ppm	*****				Fe			Fe			Fe				
Magnesium						Mn			Mn			Mn				
Calcium						Cu	0		Cu	2	Band	Cu	0			
Sodium						Mg			Mg			Mg				
Org.Matter	1.3 %	*****				Lime			Lime			Lime				
Carbonate(CCE)						Soil pH			Cation Exchange Capacity			% Base Saturation (Typical Range)				
Sol. Salts	0-6" 0.26 mmho/cm 6-24" 0.26 mmho/cm	*****				Buffer pH			% Ca	% Mg	% K	% Na	% H			
						0-6"	8.0									
						6-24"	8.5									

Crop 1: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 54 K2O = 27 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them.

Crop 2: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 50 K2O = 30 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them.

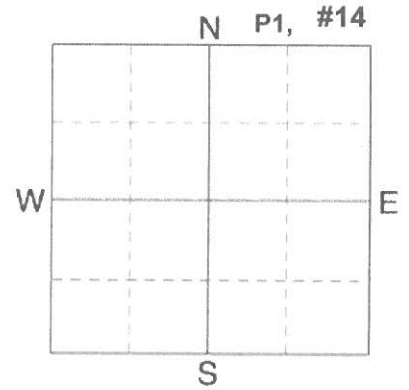
Crop 3: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 48 K2O = 83 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them. Soybeans may respond to nitrogen on fields testing less than 60 lb/ac with a limited soybean history.



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SOIL TEST REPORT

FIELD ID
 SAMPLE ID
 FIELD NAME
 COUNTY **6**
 TWP **7** RANGE
 SECTION **2** QTR **NW** ACRES **160**
 PREV. CROP **Corn-Grain**



SUBMITTED FOR:
ROSE VALLEY COLONY
GRAYSVILLE

SUBMITTED BY: **AG2408**
NAS-CARMAN
HWY 3 SOUTH
BOX 1729
CARMAN, MB **ROG 0J0**

REF # **18726643** BOX # **5529**
 LAB # **NW183312**

Date Sampled _____ Date Received **11/08/2018** Date Reported **2/27/2019**

Nutrient In The Soil		Interpretation				1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
		VLow	Low	Med	High	Canola-bu			Wheat-Spring			Soybeans		
Nitrate	0-6" 6-24"	7 lb/ac 24 lb/ac	*****											
	0-24"	31 lb/ac												
Olsen Phosphorus	10 ppm	*****				YIELD GOAL			YIELD GOAL			YIELD GOAL		
Potassium	124 ppm	*****				60 BU			80 BU			55 BU		
Chloride						SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
						Band/Maint.			Band/Maint.			Band/Maint.		
Sulfur	0-6" 6-24"	34 lb/ac 198 lb/ac	*****			LB/ACRE	APPLICATION		LB/ACRE	APPLICATION		LB/ACRE	APPLICATION	
						N	179		N	185		N	***	
Boron						P2O5	54	Band *	P2O5	50	Band *	P2O5	48	Band *
Zinc	1.10 ppm	*****				K2O	31	Band *	K2O	43	Band *	K2O	83	Band *
Iron						Cl			Cl			Cl		
Manganese						S	17	Band	S	0		S	0	
Copper	0.49 ppm	*****				B			B			B		
Magnesium						Zn	0		Zn	0		Zn	0	
Calcium						Fe			Fe			Fe		
Sodium						Mn			Mn			Mn		
Org.Matter	1.9 %	*****				Cu	0		Cu	2	Band	Cu	0	
Carbonate(CCE)						Mg			Mg			Mg		
Sol. Salts	0-6" 6-24"	0.26 mmho/cm 0.33 mmho/cm	*****			Lime			Lime			Lime		
						Soil pH	8.4		% Base Saturation (Typical Range)	% Ca	% Mg	% K	% Na	% H
						Buffer pH	8.7							

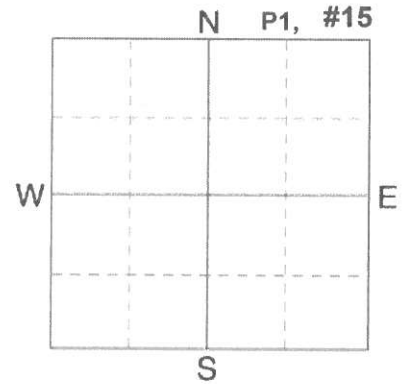
Crop 1: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 54 K2O = 27 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them.
Crop 2: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 50 K2O = 30 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them.
Crop 3: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 48 K2O = 83 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them. Soybeans may respond to nitrogen on fields testing less than 60 lb/ac with a limited soybean history.



Soil Analysis by Agvise Laboratories
 (http://www.agvise.com)
 Northwood: (701) 587-6010
 Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID
 SAMPLE ID
 FIELD NAME
 COUNTY **6**
 TWP **7** RANGE
 SECTION **8** QTR **NW** ACRES **160**
 PREV. CROP **Canola-bu**



SUBMITTED FOR:
ROSEVALLEY COLONY
GRAYSVILLE, MB **ROG OJO**

SUBMITTED BY: **AG2408**
NAS-CARMAN
HWY 3 SOUTH
BOX 1729
CARMAN, MB **ROG OJO**

REF # **18726778** BOX # **2582**
 LAB # **NW63826**

Date Sampled **09/06/2018**

Date Received **09/09/2018**

Date Reported **2/27/2019**

Nutrient In The Soil		Interpretation				1st Crop Choice		2nd Crop Choice		3rd Crop Choice				
		VLow	Low	Med	High									
Nitrate	0-6"					Corn-Grain		Wheat-Spring		Soybeans				
	6-24"					YIELD GOAL		YIELD GOAL		YIELD GOAL				
						180 BU		90 BU		55 BU				
	0-24"					SUGGESTED GUIDELINES		SUGGESTED GUIDELINES		SUGGESTED GUIDELINES				
	34 lb/ac					Band/Maint.		Band/Maint.		Band/Maint.				
	63 lb/ac					LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	LB/ACRE	APPLICATION			
	97 lb/ac					N	119	N	146	N	***			
Phosphorus	Olsen					P ₂ O ₅	72	P ₂ O ₅	56	P ₂ O ₅	48			
	31 ppm						Band *		Band *		Band *			
Potassium						K ₂ O	50	K ₂ O	47	K ₂ O	83			
	125 ppm						Band *		Band *		Band *			
Chloride						Cl		Cl		Cl				
	0-6"					S	0	S	0	S	0			
	6-24"					B		B		B				
Sulfur						Zn	3	Zn	0	Zn	0			
	32 lb/ac						Band (Trial)							
	66 lb/ac					Fe		Fe		Fe				
Boron						Mn		Mn		Mn				
	1.43 ppm					Cu	0	Cu	2	Cu	0			
Zinc							Band							
Iron						Mg		Mg		Mg				
Manganese						Lime	0	Lime	0	Lime	0			
Copper						Soil pH		Cation Exchange Capacity		% Base Saturation (Typical Range)				
	0.32 ppm					Buffer pH				% Ca	% Mg	% K	% Na	% H
Magnesium						0-6"	6.9							
Calcium						6-24"	7.9							
Sodium														
Org.Matter														
	.9 %													
Carbonate(CCE)														
	0-6"													
	0.3 mmho/cm													
	6-24"													
Sol. Salts														
	0.26 mmho/cm													

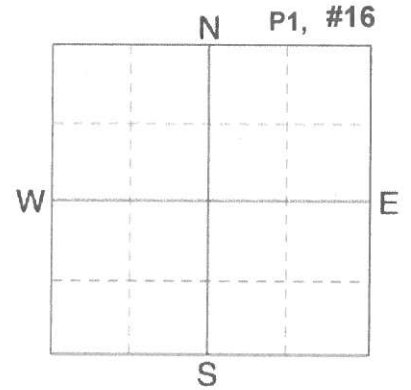
Crop 1: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 72 K2O = 49 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them.
 Crop 2: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 56 K2O = 34 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them.
 Crop 3: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 48 K2O = 83 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them.



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 Northwood: (701) 587-6010
 Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID
 SAMPLE ID
 FIELD NAME
 COUNTY **6**
 TWP **7** RANGE
 SECTION **8** QTR **SE** ACRES **160**
 PREV. CROP **Canola-bu**



SUBMITTED FOR:
ROSEVALLEY COLONY
GRAYSVILLE, MB **ROG OJO**

SUBMITTED BY: **AG2408**
NAS-CARMAN
HWY 3 SOUTH
BOX 1729
CARMAN, MB **ROG OJO**

REF # **18726779** BOX # **2582**
 LAB # **NW63827**

Date Sampled **09/06/2018**

Date Received **09/09/2018**

Date Reported **2/27/2019**

Nutrient In The Soil		Interpretation				1st Crop Choice		2nd Crop Choice		3rd Crop Choice				
		VLow	Low	Med	High	Corn-Grain		Wheat-Spring		Soybeans				
Nitrate	0-6"					YIELD GOAL		YIELD GOAL		YIELD GOAL				
	6-24"					180 BU		90 BU		55 BU				
	0-24"					SUGGESTED GUIDELINES		SUGGESTED GUIDELINES		SUGGESTED GUIDELINES				
Olsen Phosphorus	19 ppm					Band/Maint.		Band/Maint.		Band/Maint.				
Potassium	98 ppm					LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	LB/ACRE	APPLICATION			
Chloride						N	164	N	191	N	***			
Sulfur	120 +lb/ac 264 lb/ac					P ₂ O ₅	72 Band *	P ₂ O ₅	56 Band *	P ₂ O ₅	48 Band *			
Boron						K ₂ O	66 Band *	K ₂ O	64 Band *	K ₂ O	83 Band *			
Zinc	1.52 ppm					Cl		Cl		Cl				
Iron						S	0	S	0	S	0			
Manganese						B		B		B				
Copper	0.32 ppm					Zn	3 Band (Trial)	Zn	0	Zn	0			
Magnesium						Fe		Fe		Fe				
Calcium						Mn		Mn		Mn				
Sodium						Cu	0	Cu	2 Band	Cu	0			
Org.Matter	2.5 %					Mg		Mg		Mg				
Carbonate(CCE)						Lime		Lime		Lime				
Sol. Salts	0-6"					Soil pH	Buffer pH	Cation Exchange Capacity		% Base Saturation (Typical Range)				
	6-24"					0-6" 8.1				% Ca	% Mg	% K	% Na	% H
	0.41 mmho/cm					6-24" 8.5								

Crop 1: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 72 K2O = 49 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them.

Crop 2: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 56 K2O = 34 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them.

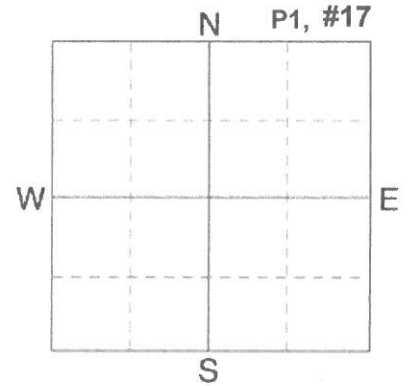
Crop 3: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 48 K2O = 83 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them. Soybeans may respond to nitrogen on fields testing less than 60 lb/ac with a limited soybean history.



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SOIL TEST REPORT

FIELD ID
 SAMPLE ID
 FIELD NAME
 COUNTY **6**
 TWP **7** RANGE
 SECTION **11** QTR **SE** ACRES **160**
 PREV. CROP **Corn-Grain**



SUBMITTED FOR:
ROSE VALLEY COLONY
GRAYSVILLE

SUBMITTED BY: AG2408
NAS-CARMAN
HWY 3 SOUTH
BOX 1729
CARMAN, MB **ROG OJO**

REF # **18726641** BOX # **5488**
 LAB # **NW183310**

Date Sampled _____ Date Received **11/08/2018** Date Reported **2/27/2019**

Nutrient In The Soil		Interpretation				1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
		VLow	Low	Med	High	Canola-bu			Wheat-Spring			Soybeans		
Nitrate	0-6"					YIELD GOAL			YIELD GOAL			YIELD GOAL		
	6-24"					60 BU			80 BU			55 BU		
	0-24"					SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
						Band/Maint.			Band/Maint.			Band/Maint.		
Phosphorus	Olsen 11 ppm	*****				LB/ACRE	APPLICATION		LB/ACRE	APPLICATION		LB/ACRE	APPLICATION	
Potassium	108 ppm	*****				N	195		N	201		N	***	
Chloride						P ₂ O ₅	54	Band *	P ₂ O ₅	50	Band *	P ₂ O ₅	48	Band *
						K ₂ O	40	Band *	K ₂ O	52	Band *	K ₂ O	83	Band *
						Cl			Cl			Cl		
Sulfur	0-6" 46 lb/ac 6-24" 222 lb/ac	*****				S	12	Band	S	0		S	0	
Boron						B			B			B		
Zinc	0.70 ppm	*****				Zn	3	Band (Trial)	Zn	3	Band (Trial)	Zn	3	Band (Trial)
Iron						Fe			Fe			Fe		
Manganese						Mn			Mn			Mn		
Copper	0.43 ppm	*****				Cu	0		Cu	2	Band	Cu	0	
Magnesium						Mg			Mg			Mg		
Calcium						Lime			Lime			Lime		
Sodium						Soil pH			Cation Exchange Capacity			% Base Saturation (Typical Range)		
Org.Matter	2.0 %	*****				Buffer pH			% Ca	% Mg	% K	% Na	% H	
Carbonate(CCE)						0-6" 8.5								
Sol. Salts	0-6" 0.31 mmho/cm 6-24" 0.36 mmho/cm	*****				6-24" 8.6								

Crop 1: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 54 K2O = 27 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them.

Crop 2: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 50 K2O = 30 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them.

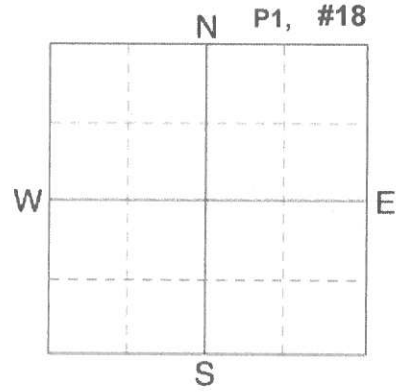
Crop 3: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 48 K2O = 83 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them. Soybeans may respond to nitrogen on fields testing less than 60 lb/ac with a limited soybean history.



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SOIL TEST REPORT

FIELD ID
 SAMPLE ID
 FIELD NAME
 COUNTY **6**
 TWP **7** RANGE
 SECTION **11** QTR **NE** ACRES **160**
 PREV. CROP **Canola-bu**



SUBMITTED FOR:
ROSE VALLEY COLONY
GRAYSVILLE, MB **ROG OJO**

SUBMITTED BY: AG2408
NAS-CARMAN
HWY 3 SOUTH
BOX 1729
CARMAN, MB **ROG OJO**

REF # **18726764** BOX # **1459**
 LAB # **NW50761**

Date Sampled **08/21/2018** Date Received **08/30/2018** Date Reported **2/27/2019**

Nutrient In The Soil		Interpretation				1st Crop Choice		2nd Crop Choice		3rd Crop Choice			
		VLow	Low	Med	High								
Nitrate	0-6" 7 lb/ac	****				Corn-Grain		Soybeans		Wheat-Spring			
	6-24" 12 lb/ac					YIELD GOAL		YIELD GOAL		YIELD GOAL			
	0-24" 19 lb/ac					180 BU		55 BU		80 BU			
SUGGESTED GUIDELINES		SUGGESTED GUIDELINES		SUGGESTED GUIDELINES		SUGGESTED GUIDELINES		SUGGESTED GUIDELINES		SUGGESTED GUIDELINES			
Band/Maint.		Band/Maint.		Band/Maint.		Band/Maint.		Band/Maint.		Band/Maint.			
Phos phorus	Olsen 10 ppm	*****				LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	LB/ACRE	APPLICATION		
Potassium	94 ppm	*****				N	197	N	***	N	197		
Chloride						P ₂ O ₅	72 Band *	P ₂ O ₅	48 Band *	P ₂ O ₅	50 Band *		
Sulfur	0-6" 66 lb/ac 6-24" 180 lb/ac	*****				K ₂ O	68 Band *	K ₂ O	83 Band *	K ₂ O	59 Band *		
Boron						Cl		Cl		Cl			
Zinc	0.45 ppm	*****				S	0	S	0	S	0		
Iron						B		B		B			
Manganese						Zn	4 Band	Zn	3 Band (Trial)	Zn	3 Band (Trial)		
Copper	0.26 ppm	****				Fe		Fe		Fe			
Magnesium						Mn		Mn		Mn			
Calcium						Cu	1 Band	Cu	1 Band	Cu	3 Band		
Sodium						Mg		Mg		Mg			
Org.Matter	2.8 %	*****				Lime		Lime		Lime			
Carbonate(CCE)						Soil pH		Cation Exchange Capacity		% Base Saturation (Typical Range)			
Sol. Salts	0-6" 0.41 mmho/cm 6-24" 0.32 mmho/cm	*****				Buffer pH		% Ca	% Mg	% K	% Na	% H	
						0-6" 8.5							
						6-24" 8.8							

Crop 1: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P₂O₅ = 72 K₂O = 49 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them.

Crop 2: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P₂O₅ = 48 K₂O = 83 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them. Soybeans may respond to nitrogen on fields testing less than 60 lb/ac with a limited soybean history.

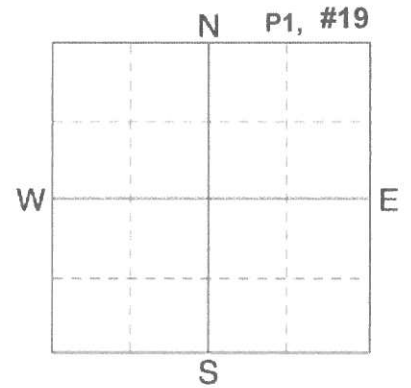
Crop 3: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P₂O₅ = 50 K₂O = 30 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them.



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 Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID
 SAMPLE ID
 FIELD NAME
 COUNTY **6**
 TWP **6** RANGE
 SECTION **22** QTR **NW** ACRES **80**
 PREV. CROP **Corn-Grain**



SUBMITTED FOR:
ROSEVALLEY COLONY
GRAYSVILLE, MB **ROG OJO**

SUBMITTED BY: **AG2408**
NAS-CARMAN
HWY 3 SOUTH
BOX 1729
CARMAN, MB **ROG OJO**

REF # **18726640** BOX # **5101**
 LAB # **NW179154**

Date Sampled _____ Date Received **11/06/2018** Date Reported **2/27/2019**

Nutrient In The Soil		Interpretation				1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
		VLow	Low	Med	High	Canola-bu			Wheat-Spring			Soybeans		
Nitrate	0-6" 6-24"	17 lb/ac 159 lb/ac				YIELD GOAL			YIELD GOAL			YIELD GOAL		
	0-24"	176 lb/ac				60 BU			80 BU			55 BU		
Phosphorus	Olsen	54 ppm				SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
	Potassium	264 ppm				Band/Maint.			Band/Maint.			Band/Maint.		
Sulfur	0-6" 6-24"	26 lb/ac 228 lb/ac				LB/ACRE	APPLICATION		LB/ACRE	APPLICATION		LB/ACRE	APPLICATION	
	Chloride					N	34		N	40		N	***	
Zinc		3.55 ppm				P ₂ O ₅	10	Band (Starter)*	P ₂ O ₅	15	Band (Starter)*	P ₂ O ₅	10	Band (Starter)*
	Boron					K ₂ O	0		K ₂ O	10	Band (Starter)*	K ₂ O	0	
Iron						Cl			Cl			Cl		
	Manganese					S	17	Band	S	0		S	7	Band (Trial)
Copper		1.01 ppm				B			B			B		
	Magnesium					Zn	0		Zn	0		Zn	0	
Calcium						Fe			Fe			Fe		
	Sodium					Mn			Mn			Mn		
Org.Matter		2.1 %				Cu	0		Cu	0		Cu	0	
	Carbonate(CCE)					Mg			Mg			Mg		
Sol. Salts	0-6" 6-24"	0.25 mmho/cm 0.4 mmho/cm				Lime			Lime			Lime		
						Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)					
						0-6" 7.8			% Ca	% Mg	% K	% Na	% H	
						6-24" 8.4								

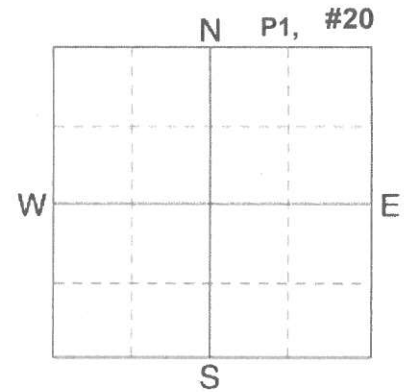
Crop 1: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 54 K2O = 27 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them.
 Crop 2: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 50 K2O = 30 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them.
 Crop 3: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 48 K2O = 83 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them.



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SOIL TEST REPORT

FIELD ID
 SAMPLE ID
 FIELD NAME
 COUNTY **6**
 TWP **5** RANGE
 SECTION **21** QTR **NE** ACRES **160**
 PREV. CROP



SUBMITTED FOR:
ROSE VALLEY COLONY
GRAYSVILLE, MB **ROG OJO**

SUBMITTED BY: **AG2408**
NAS-CARMAN
HWY 3 SOUTH
BOX 1729
CARMAN, MB **ROG OJO**

REF # **18726763** BOX # **1459**
 LAB # **NW50759**

Date Sampled **08/21/2018**

Date Received **08/30/2018**

Date Reported **2/27/2019**

Nutrient In The Soil		Interpretation				1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
		VLow	Low	Med	High	Canola-bu			Corn-Grain			Soybeans		
Nitrate	0-6"	*****				YIELD GOAL			YIELD GOAL			YIELD GOAL		
	6-24"	*****				60 BU			180 BU			55 BU		
	0-24"	*****				SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
		*****				Band/Maint.			Band/Maint.			Band/Maint.		
Phosphorus	Olsen 8 ppm	*****				LB/ACRE	APPLICATION		LB/ACRE	APPLICATION		LB/ACRE	APPLICATION	
Potassium	202 ppm	*****				N	181		N	187		N	***	
Chloride		*****				P ₂ O ₅	54	Band *	P ₂ O ₅	72	Band *	P ₂ O ₅	48	Band *
		*****				K ₂ O	27	Band *	K ₂ O	49	Band *	K ₂ O	83	Band *
Sulfur	0-6" 120 +lb/ac 6-24" 360 +lb/ac	*****				Cl			Cl			Cl		
Boron		*****				S	10	Band	S	0		S	0	
Zinc	1.75 ppm	*****				B			B			B		
Iron		*****				Zn	0		Zn	2	Band (Trial)	Zn	0	
Manganese		*****				Fe			Fe			Fe		
Copper	1.31 ppm	*****				Mn			Mn			Mn		
Magnesium		*****				Cu	0		Cu	0		Cu	0	
Calcium		*****				Mg			Mg			Mg		
Sodium		*****				Lime			Lime			Lime		
Org.Matter	4.7 %	*****				Soil pH			Cation Exchange Capacity			% Base Saturation (Typical Range)		
Carbonate(CCE)		*****				Buffer pH			% Ca	% Mg	% K	% Na	% H	
Sol. Salts	0-6"	*****				0-6"	7.7							
	6-24"	*****				6-24"	8.0							

Crop 1: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 54 K2O = 27 AGVISE Band/Maintenance guidelines will build P & K test levels to the medium range over many years and then maintain them.

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To: Bob Chubb

PO Box 401
 Portage la Prairie, MB R1N 3B7
 Phone: (204) 999-4878
 Email: bchubb@AGRI-TREND.com

Grower: Rose Valley Colony Ltd. (Billing Account)
 Field: 162413 - Cool North
 Legal: SE 25-7-7-W1

Report Number:
 Submission Number: A352351
 Account Number: 1011021
 Report Date: 2017-10-24
 Recieved Date: 2017-10-17

Sample ID	Depth Inches	GPI %	OM %	CEC meq/100g	Ph	Ph B	SS percentages/cm	NO3 ppm	NO3 lbs	NH4 ppm	S ppm	Bi Carb ppm	P1 ppm	P2 ppm	Sat P% %	K ppm	K% %	Al ppm	Cl ppm	P ppm	Mehlichp ppm	Base Sat. %
1-A	0-6"	43	2	77.5	9		0.4	18	36	49	11		19	24	1648	130	0.4	7	11	23		
1-B	6-12"		0.6	86.1	9.2			41	82	57	3		2	3	376	94	0.3	4		3		
1-C	12-24"		0.4	130.6	9.5			25	100	66	1		1	2	251	94	0.2	2		1		
Sample ID	Depth Inches	Water Inches	Ca ppm	%Ca %	%H %	Na ppm	%Na %	Mg ppm	%Mg %	K/Mg ppm	Zn ppm	Mn ppm	Fe ppm	Cu ppm	B ppm	Mo ppm	Carbonate L,M,H					
1-A	0-6"	1.1"	11220	72.5	0	326	1.8	2354	25.3	0.02	2.6	70	337	0.5	4	0.01		H				
1-B	6-12"	0.6"	10960	63.7	0	517	2.6	3453	33.4	0.01	1.3				1.7							
1-C	12-24"	1.7"	18410	70.4	0	502	1.7	4336	27.7	0.01	2				1.1							

To: Bob Chubb

Grower: Rose Valley Colony Ltd. (Billing Account)
Field: 156128 - Cool South
Legal: SW 25-7-7-W1

Report Number:
Submission Number: A27733
Account Number: 1091289
Report Date: 2018-10-22
Recieved Date: 2018-10-14

Phone:
Email: chubbbob@yahoo.ca

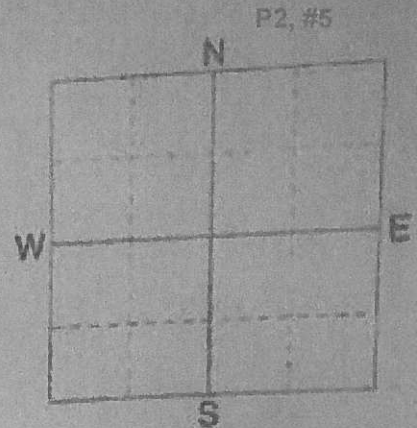
Sample ID	Depth Inches	GPI %	OM %	CEC meq/100g	Ph	Ph B	SS mmhos/cm	NO3 ppm	NO3 lbs	NH4 ppm	S ppm	Bi Carb ppm	P1 ppm	P2 ppm	Sat P% %	K ppm	K% %	Al ppm	Cl ppm	P ppm	Mehlichp ppm	Carbonate L, M, H	Base Sat. %
1-A	0-6"	66	1.2	7	6.5	7	0.1	2	4	15	47	56	82	224	165	6	253	2	113				
1-B	6-12"		0.3	7.9	7.9			3	6	14	21	18	44		72	2.3	290		32				
1-C	12-24"		0.4	11.3	7.9			4	16	19	13	13	70		49	1.1	233		27				
Sample ID Depth		Water		Ca	%Ca	%H	Na	%Na	Mg	%Mg	K/Mg	Zn	Mn	Fe	Cu	B	Mo	Carbonate		Base Sat.			
	Inches	Inches	ppm	ppm	%	%	ppm	%	ppm	%	ppm	ppm	ppm	ppm	ppm	ppm	ppm	L, M, H		%			
1-A	0-6"	0.5"	969	69.2	7.6	22	1.4	133	15.8	0.38	2.5	57	306	0.4	0.5	0.01		L					
1-B	6-12"	0.5"	1290	81.5	0	24	1.3	141	14.9	0.16													
1-C	12-24"	1.0"	1959	86.7	0	42	1.6	144	10.6	0.11													



Soil Analysis by Agvise Laboratories
 (http://www.agvise.com)
 Northwood: (701) 587-6010
 Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID
 SAMPLE ID
 FIELD NAME
 COUNTY
 TWP 6-6 RANGE
 SECTION 2 QTR NE ACRES 160
 PREV. CROP



P2, #5

SUBMITTED FOR:
 ROSEVALLEY COLONY
 GRAYSVILLE

SUBMITTED BY: AG2408
 CPS-CARMAN
 HWY 3 SOUTH
 BOX 1729
 CARMAN, MO
 RDG 03D

REF # 14007842 BOX # 0
 LAB # NW89755

Date Sampled 09/29/2017 Date Received 09/30/2017 Date Reported 10/3/2017

Nutrient In The Soil		Interpretation				1st Crop Choice		2nd Crop Choice		3rd Crop Choice		
		VLow	Low	Med	High							
Nitrate	0-6"	9 lb/ac				Corn-Grain		Wheat-Spring		Canola-Bu		
	6-24"	18 lb/ac				YIELD GOAL		YIELD GOAL		YIELD GOAL		
						160 BU		90 BU		60 BU		
	0-24"	27 lb/ac				SUGGESTED GUIDELINES		SUGGESTED GUIDELINES		SUGGESTED GUIDELINES		
						Broadcast		Broadcast		Broadcast		
Olsen	19 ppm					LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	
N						N 189		N 216		N 183		
P2O5						P2O5 48	Broadcast	P2O5 33	Broadcast	P2O5 44	Broadcast	
K2O						K2O 80	Broadcast	K2O 70	Broadcast	K2O 46	Broadcast	
Ca						Ca		Ca		Ca		
S						S 0		S 0		S 15	Broadcast	
B						B		B		B		
Zn						Zn 0		Zn 0		Zn 0		
Fe	2.71 ppm					Fe		Fe		Fe		
Mn						Mn		Mn		Mn		
Cu						Cu 0		Cu 2	Broadcast (Trial)	Cu 0		
Mg						Mg		Mg		Mg		
Lime						Lime		Lime		Lime		
Cation Exchange Capacity	2.2 %					Soil pH		Cation Exchange Capacity		% Base Saturation (Typical Range)		
Buffer pH						5.4-8.0		% Ca	% Mg	% K	% Na	% H
0-6"	0.47 mmho/cm					5.24-8.3						
6-24"	0.54 mmho/cm											

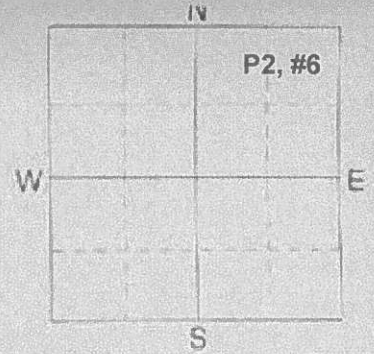
Crop 1: Many crops may respond to a starter application of P & K, even on high soil tests. Crop Removal: P2O5 = 73 K2O = 49 AGVISE Broadcast guidelines will build P & K test levels to the high range over several years.
 Crop 2: Many crops may respond to a starter application of P & K, even on high soil tests. Crop Removal: P2O5 = 56 K2O = 34 AGVISE Broadcast guidelines will build P & K test levels to the high range over several years.
 Crop 3: Many crops may respond to a starter application of P & K, even on high soil tests. Crop Removal: P2O5 = 34 K2O = 27 AGVISE Broadcast guidelines will build P & K test levels to the high range over several years.



P.O. BOX 510, HARTWOOD, NS B2A2T7
(902) 587-0010

SOIL TEST REPORT

FIELD WELVE ON 1/4 SAMPLE
 COUNTY NS
 TWP SM SECTION 14
 QTR SM ACRES 140.0
 PREV CROP POTATOES



SUBMITTED FOR:

MCINTOSH VENTURES

20 20
BRANDVILLE, NS

PO BOX 177000

SUBMITTED BY:

PA2100

D. MACK FARMS LTD
5TH AVE SW 1460
PO BOX 10025
DARVELL NS

POB 070 CANADA

REF # 17150902
LAB # 19335

BOX # 0050

DATE SAMPLED 11/ 5/18

DATE RECEIVED 11/ 8/18

DATE REPORTED 11/ 9/18

NUTRIENT IN THE SOIL	INTERPRETATION				1ST CROP CHOICE		2ND CROP CHOICE		3RD CROP CHOICE				
	V LOW	LOW	MED	HIGH	GRAIN CROP								
Nitrate N					YIELD GOAL	170 BU	YIELD GOAL		YIELD GOAL				
Phosphorus					SUGGESTED GUIDELINES		SUGGESTED GUIDELINES		SUGGESTED GUIDELINES				
Potassium					BROADCAST/BUILD		BROADCAST/BUILD		BROADCAST/BUILD				
Calcium					LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	LB/ACRE	APPLICATION			
Sulfur					N	112	N		N				
Boron					P ₂ O ₅	57 Broadcast	P ₂ O ₅		P ₂ O ₅				
Zinc					K ₂ O	10 Band (2x2) †	K ₂ O		K ₂ O				
Iron					Cl	0	Cl		Cl				
Manganese					S	0	S		S				
Copper					B	0	B		B				
Magnesium					Zn	4 Broadcast	Zn		Zn				
Calcium					Fe	0	Fe		Fe				
Sodium					Mn	0	Mn		Mn				
Organic Matter					Cu	2 Broadcast	Cu		Cu				
Carbonate (CO ₃)					Mg	0	Mg		Mg				
Soluble P					Urea	0-0	Urea		Urea				
Salts					Soil pH		Cation Exchange Capacity		% Base Saturated (Typical Range)				
					0-6"	8.1			% Ca	% Mg	% K	% Na	% H
					6-24"	8.4	27.4 meq		(35-75)	(1-20)	(1-7)	(0-3)	(2-5)

† CAUTION! SEED PLACED FERTILIZER CAN CAUSE INJURY!

In no-till or very reduced tillage systems, an additional 30 lbs/ac of nitrogen may increase corn yields.

Estimated texture = texture is not estimated on high pH soils.

Broadcast P or K fertilizer is not suggested on high testing soils, however a band application of fertilizer is suggested at 5-5 lbs/ac.

Drop harvest time is 120% and 80% 46

ADVISE Broadcast Guidelines will build P & K test levels to the high range over several years.



**South-Man
Engineering**

8-651 Lajmouliere Blvd. | Winnipeg, Manitoba | R2J 3K6
 PH. (204) 668-9632 | FAX (204) 668-9204

PROJECT NAME	ROSEVALLEY HOGS	BUILDING AREA	N/A
SHEET TITLE	TRUCK HAUL ROUTE	DRAWN BY	R. FLORES
DATE DRAWN	MARCH 2019	SOUTH-MAN ENGINEERING	
THIS DRAWING IS THE PROPERTY OF SOUTH-MAN ENGINEERING, WINNIPEG, MANITOBA, CANADA.		DRAWING SCALE	SCALED TO FIT
			SHEET NUMBER
			SP-3

February 13, 2019
Desalegn Edossa
South-Man Engineering
8-851 Lagimodiere Blvd
Winnipeg, MB R2J 3K4

Hi Edossa

Thank you for your information request. I completed a search of the Manitoba Conservation Data Centre's (CDC) rare species database for your area of interest. This includes the primary locations: NW,NE,SE,SW-22-006-06W1; the adjacent quarter sections; and adjacent access roads and road allowances.

The search resulted in the following occurrences:

Within the primary location(s):

NW-22-006-06W1:

No listed or tracked species occurrences at this time.

NE-22-006-06W1:

No listed or tracked species occurrences at this time.

SE-22-006-06W1:

No listed or tracked species occurrences at this time.

SW-22-006-06W1:

TAXGROUP	SCINAME	COMNAME	SRANK	ESEA	SARA	COSEWIC
Vertebrate Animal	Dolichonyx oryzivorus	(Bobolink)	S4B	NA	Threatened	Threatened

Mile roads and road allowances:

Half mile road segment located west and adjacent to SE-22-006-06W1:

TAXGROUP	SCINAME	COMNAME	SRANK	ESEA	SARA	COSEWIC
Vertebrate Animal	Dolichonyx oryzivorus	(Bobolink)	S4B	NA	Threatened	Threatened

General area records low locational accuracy:

TAXGROUP	SCINAME	COMNAME	SRANK	ESEA	SARA	COSEWIC
Vascular Plant	Phryma leptostachya	(Lopseed)	S3	NA	NA	NA

Found in broader area and similar habitat:

NA

Further information on this ranking system can be found on our website at: <http://www.natureserve.org/conservation-tools/conservation-status-assessment>.

These designations can be found at:

<http://web2.gov.mb.ca/laws/statutes/ccsm/e111e.php>,

<https://www.canada.ca/en/environment-climate-change/services/committee-status-endangered-wildlife.html> and

<http://www.sararegistry.gc.ca/default.asp?lang=En&n=24F7211B-1>.

Manitoba's recommended setback distances can be found at:

https://www.gov.mb.ca/sd/cdc/pdf/mbcdc_bird_setbacks.pdf.

The information provided in this letter is based on existing data known to the Manitoba CDC of the Wildlife and Fisheries Branch at the time of the request. These data are dependent on the research and observations of CDC staff and others who have shared their data, and reflect our current state of knowledge. **An absence of data does not confirm the absence of any rare or endangered species.** Many areas of the province have never been thoroughly surveyed, however, and the absence of data in any particular geographic area does not necessarily mean that species or ecological communities of concern are not present. The information should, therefore, not be regarded as a final statement on the occurrence of any species of concern nor should it substitute for on-site surveys for species or environmental assessments. Also, because our Biotics database is continually updated and because information requests are evaluated by type of action, any given response is only appropriate for its respective request.

Please contact the Manitoba CDC for an update on this natural heritage information if more than six months passes before it is utilised.

Third party requests for products wholly or partially derived from the Biotics database must be approved by the Manitoba CDC before information is released. Once approved, the primary user will identify the Manitoba CDC as data contributors on any map or publication using data from our database, as the Manitoba Conservation Data Centre; Wildlife and Fisheries Branch, Manitoba Sustainable Development.

This letter is for information purposes only - it does not constitute consent or approval of the proposed project or activity, nor does it negate the need for any permits or approvals required by the Province of Manitoba.

We would be interested in receiving a copy of the results of any field surveys that you may undertake, to update our database with the most current knowledge of the area.

If you have any questions or require further information contact me directly at (204) 945-7760.

Colin Murray

Reference screen clip:



Colin Murray
Information Manager
Manitoba Conservation Data Centre
Wildlife and Fisheries Branch
Department of Sustainable Development

200 Saulteaux Crescent
Winnipeg, Manitoba, R3J3W3
204-945-7760
colin.Murray@gov.mb.ca
<http://www.gov.mb.ca/sd/cdc/index.html>



Strategy to avoid Bobolink's habitat destruction

Bobolink (*Dolichonyx oryzivorus*), a threatened vertebrate animal, is identified by Manitoba Conservation Data Center in the proposed site (on SW 22-6-6W). The Bobolink is a medium sized songbird found in grasslands and hayfields. Its preferred habitat changes depending on the time of year. During the breeding season bobolinks make their home in open grassland and farm fields. Just before migrating, bobolinks move from their breeding grounds to freshwater marshes where they molt into their non-breeding feather colours (plumage). As winter approaches, it is time for Bobolinks to fly south. Each year they fly from their home in southern Canada and northern USA, all the way to South America. When they finally reach their wintering grounds in South America, Bobolinks look for grasslands, marshes, rice fields and sorghum fields. They will stay there until spring, when they head back to Canada to breed for the summer.

Main causes of decline in Bobolink populations is identified as (COSEWIC, 2010)¹:

- a) incidental mortality from agricultural operations such as haying that destroys nests and kill adults,
- b) habitat loss caused by the conversion of forage crops to intensive grain crops and other row crops,
- c) habitat fragmentation, which promotes higher rates of predation on nests located near edges and
- d) pesticide use on breeding and wintering grounds, which may cause both direct and indirect mortality.

The proposed construction of the manure storage will be undertaken on a small parcel of land within the quarter section (SW 22-6-6W) and it is anticipated that Bobolink habitat is not likely to be affected by the construction activity. Disturbance or potentially deleterious activity outside of the breeding season (May 15 to August 15) is suggested by Manitoba Conservation Data Center. To avoid damaging or destroying the habitat or existence of Bobolink on the proposed site, we recommend that the construction of the manure storage lagoon be conducted outside this breeding season.

¹ COSEWIC (2010). COSEWIC assessment and status report on the Bobolink (*Dolichonyx oryzivorus*) in Canada. Committee on the Status of Endangered Wildlife in Canada, Ottawa. vi +42 pp (www.sararegistry.gc.ca/status/status_e.cfm).