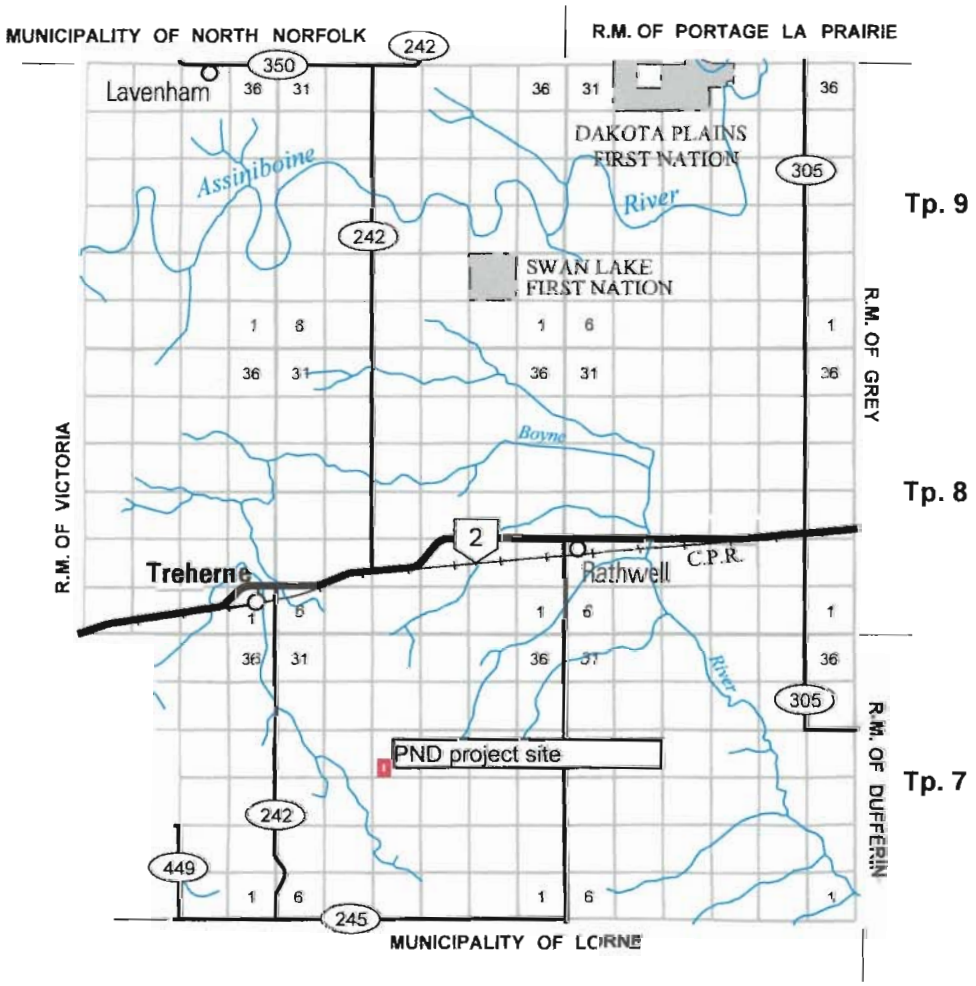
MUNICIPALITY OF NORFOLK TREHERNE

0 5
SCALE IN KILOMETRES

PROVINCE OF MANITOBA
INFRASTRUCTURE
HIGHWAY PLANNING AND DESIGN BRANCH
GEOGRAPHIC & RECORDS MANAGEMENT SECTION
WINNIPEG
JANUARY 1, 2015

LEGEND

PROVINCIAL TRUNK HIGHWAYS 2
PROVINCIAL ROADS 242
ACCESS ROADS .....
RAILWAYS .....



FORMERLY RM OF SOUTH NORFOLK

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		-		-
	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		-		-
	Sows - farrow to weanling (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	10,000	1,430	13,000	1,859
Chickens	Broilers	0.005		-		-
	Roasters	0.01		-		-
	Layers	0.0083		-		-
	Pullets	0.0033		-		-
	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:	1,430	Total Proposed:	1,859

Footnotes:

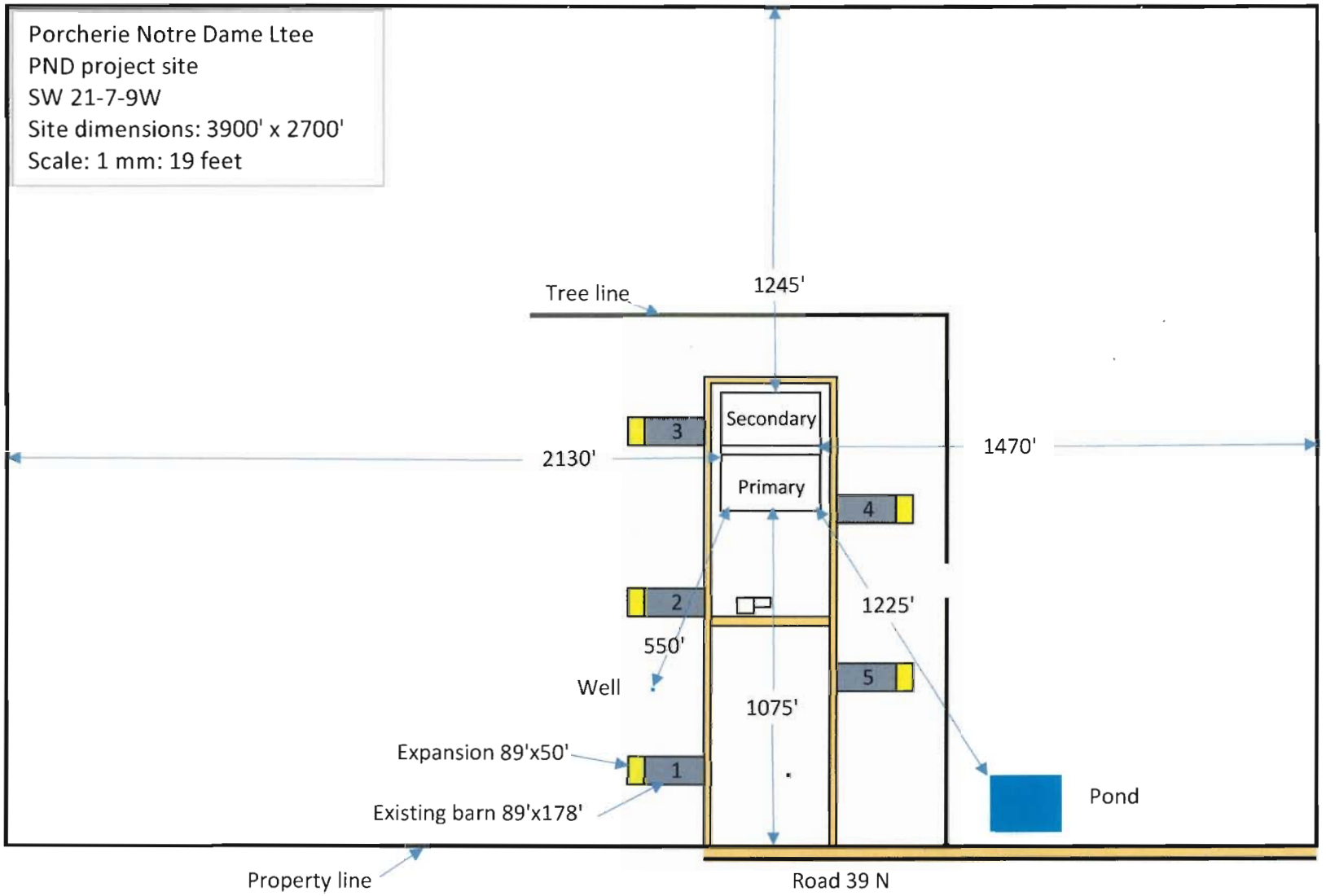
[1] Enter the current number of animals on the farm based on the operation's capacity (animal places) or previous Conditional Use Approval.

[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

Manitoba


Porcherie Notre Dame Ltee
PND project site
SW 21-7-9W
Site dimensions: 3900' x 2700'
Scale: 1 mm: 19 feet
Tree line
1245'
Secondary
3
2130'
1470'
Primary
4
2
1225'
550'
Well
5
1075'
Expansion 89'x50'
1
Existing barn 89'x178'
Pond
Property line
Road 39 N


Manitoba Soils
N
Neuhe Series (NYO)(Class 5T)
SW-21-7-9-W
Pembina Series (PBI)(Class 1T)
SE-21-7-9-W
Manitoba Soil Series
Quarter Section Grid
GIS4AG LTD ©2015
CREATED WITH MANGO

2017 Jan 20

WELL INFORMATION REPORT

Manitoba

Well PID: 121641

Location: SW21-7-9W
UTMX:526258.1 UTMY:5492024.8 XY Accuracy:No Accuracy
Owner: NOTRE DAME DELOURDES
Driller: UNKNOWN
Well Name: TH #5
Date Completed: 2001 Oct 26
Well Use: TEST WELL
Well Status: ACTIVE Aquifer: DRY WELL

REMARKS:
LOCATED NW OF WELL #4. MAP ON FILE.

WELL LOG (Imperial units)

From	To(ft.)	Log
0.0	0.3	TOPSOIL
0.3	7	CLAY SOFT LIGHT BROWN SANDY TRACE OF SILT PEBBLES
7.0	13.5	CLAY SOFT MOIST BROWN SANDY SILT TRACE OF PEBBLES
13.5	18	CLAY FIRM DARK BROWN SANDY TRACE OF SILT AND GRAVEL
18.0	23	CLAY STIFF DRY DARK BROWN SANDY SILT AND SHALE PARTICLES
23.0	30	CLAY FIRM GREY SILTY SANDY SHALE SATURATED

WELL CONSTRUCTION
Top of Casing: 0.0 ft above ground

2017 Jan 20

WELL INFORMATION REPORT

Manitoba

Well PID: 119403

Location: SW21-7-9W
UTMX:526258.1 UTMY:5492024.8 XY Accuracy:No Accuracy
Owner: PORCHERIE LAC DU ONZE LTEE.
Driller: Watkins & Argue Construction Co.
Well Name:
Date Completed: 2002 May 07
Well Use: PRODUCTION
WATER USE: Livestock
Well Status: ACTIVE Aquifer: SHALE

REMARKS:
WELL LOCATED 150' SOUTH OF BARN. CHLORINE, FE=1.5, HARD=28, EC=460

WELL LOG (Imperial units)

From	To(ft.)	Log
0.0	30	BROWN TILL
30.0	35	GRAVEL
35.0	47	BROWN TILL
47.0	70	GREY TILL
70.0	80	FINE SAND LAYERS
80.0	100	LAYERS OF SAND AND CLAY
100.0	112	SHALE GRAVEL
112.0	120	ODANAH SHALE

WELL CONSTRUCTION

From	To(ft)	Const.Method	Inside Dia.(in)	Outside Dia.(in)	Slot Size(in)	Type	Material
0.0	102.0	CASING	5.0				PVC
102.0	112.0	PERFORATIONS	5.0		0.015		S. S.
97.0	120.0	GRAVEL PACK				NO. 20-40	SILICA S.
80.0		CASING GROUT				3/8 IN.	BENTONITE

Top of Casing: 2.0 ft above ground

PUMPING TEST
Date : 2002 May 07 Pumping Imp. gallons/minute
Water level before test : 39.0 ft below ground
Water level at end of test :
Test duration:
Test Zone: from 102.0 ft to 112.0 ft

2017 Jan 20

WELL INFORMATION REPORT

Manitoba

Well PID: 121636

Location: SW21-7-9W
UTMX:526258.1 UTMY:5492024.8 XY Accuracy:No Accuracy
Owner: NOTRE DAME DELOURDES
Driller: UNKNOWN
Well Name: TH #1
Date Completed: 2001 Oct 26
Well Use: TEST WELL
Well Status: ACTIVE Aquifer: DRY WELL

REMARKS:
LOCATED 200M WEST OF BARN 3. MAP ON FILE.

WELL LOG (Imperial units)

From	To(ft.)	Log
0.0	1	TOPSOIL
1.0	7.5	CLAY DRY BROWN WITH SAND AND SILT
7.5	10	CLAY GREY BROWN WITH SAND AND SILT
10.0	13	CLAY, DRY, GREY BROWN WITH SAND AND SILT SOME PEBBLES AND SHALE PIECES
13.0	14	CLAY MOIST BROWN WITH SAND AND SILT
14.0	17	SAND AND GRAVEL SATURATED
17.0	18	CLAY SOFT MOIST BROWN WITH SAND AND SILT
18.0	20	SAND AND GRAVEL SATURATED

WELL CONSTRUCTION
Top of Casing: 0.0 ft above ground

2017 Jan 20

WELL INFORMATION REPORT

Manitoba

Well PID: 121638

Location: SW21-7-9W
UTMX:526258.1 UTMY:5492024.8 XY Accuracy:No Accuracy
Owner: NOTRE DAME DELOURDES
Driller: UNKNOWN
Well Name: TH #2
Date Completed: 2001 Oct 26
Well Use: TEST WELL
Well Status: ACTIVE Aquifer: DRY WELL

REMARKS:
LOCATED NW CORNER OF BARN 3. MAP ON FILE. SOIL SAMPLED AT 9-10' GRAVEL 0.9%, SAND 37.2%, SILT 41.3%, CLAY 20.6%. AT 19-20' GRAVEL 0.6%, SAND 39.9%, SILT 35.9%, CLAY 23.6%.

WELL LOG (Imperial units)

From	To(ft.)	Log
0.0	1	TOPSOIL DARK BROWN WITH CLAY
1.0	10	CLAY DRY FIRM LIGHT BROWN SAND AND SILT, TRACE OF PEBBLES
10.0	17	CLAY DRY SOFT BROWN SAND AND SILT
17.0	20	CLAY TILL STIFF BLUE GREY SANDY SILT PEBBLES
20.0	24	CLAY SOFT MOIST BROWN SILTY, SOME SAND
24.0	27	CLAY SOFT MOIST BROWN SANDY SOME SILT
27.0	30	CLAY SOFT SATURATED BROWN SANDY SOME SILT

WELL CONSTRUCTION
Top of Casing: 0.0 ft above ground

2017 Jan 20

WELL INFORMATION REPORT

Manitoba

Well PID: 121639

Location: SW21-7-9W
UTMX:526258.1 UTMY:5492024.8 XY Accuracy:No Accuracy
Owner: NOTRE DAME DELOURDES
Driller: UNKNOWN
Well Name: TH #3
Date Completed: 2001 Oct 26
Well Use: TEST WELL
Well Status: ACTIVE Aquifer: DRY WELL

REMARKS:
LOCATED ON NORTH SIDE OF EARTHEN MANURE STORAGE FACILITY. MAP ON FILE. SOIL SAMPLED AT 9-10' GRAVEL 0.6%, SAND 34.6%, SILT 48.3%, CLAY 16.5%. AT 24-25' GRAVEL 2.4%, SAND 43.9%, SILT 33.2%, CLAY 20.5%.

WELL LOG (Imperial units)

From	To(ft.)	Log
0.0	0.8	DARK BROWN TOPSOIL
0.8	4	SAND AND GRAVEL, DRY, LIGHT BROWN
4.0	10	CLAY SOFT LIGHT BROWN SILTY SAND
10.0	12	CLAY SOFT DAMP LIGHT BROWN SILTY SANDY TRACE OF PEBBLES
12.0	17	CLAY SOFT DAMP BROWN SILTY SANDY TRACE OF PEBBLES
17.0	25	CLAY SOFT DRY BROWN SILTY SAND, TRACE OF PEBBLES
25.0	28	CLAY SOFT DRY DARK BROWN SILTY SAND
28.0	30	CLAY SOFT DRY LIGHT BROWN SILTY SAND

WELL CONSTRUCTION
Top of Casing: 0.0 ft above ground

2017 Jan 20

WELL INFORMATION REPORT

Manitoba

Well PID: 121647

Location: SW21-7-9W
UTMX:526258.1 UTMY:5492024.8 XY Accuracy:No Accuracy
Owner: NOTRE DAME DELOURDES
Driller: UNKNOWN
Well Name: TH #10
Date Completed: 2001 Oct 26
Well Use: TEST WELL
Well Status: ACTIVE Aquifer: DRY WELL

REMARKS:
LOCATED E SIDE OF EARTHEN MANURE STORAGE FACILITY. MAP ON FILE.
SOIL SAMPLED AT 19-20' GRAVEL 6.2%, SAND 32.5%, SILT 39.9%, CLAY
21.4%.

WELL LOG (Imperial units)

From	To(ft.)	Log
0.0	0.5	TOPSOIL
0.5	4.5	SAND GRAVEL SILT LAYER DRY LIGHT BROWN
4.5	30	CLAY TILL SOFT DRY BROWN WITH SAND SILT TRACE OF GRAVEL

WELL CONSTRUCTION
Top of Casing: 0.0 ft above ground

2017 Jan 20

WELL INFORMATION REPORT

Manitoba

Well PID: 121646

Location: SW21-7-9W
UTMX:526258.1 UTMY:5492024.8 XY Accuracy:No Accuracy
Owner: NOTRE DAME DELOURDES
Driller: UNKNOWN
Well Name: TH #9
Date Completed: 2001 Oct 26
Well Use: TEST WELL
Well Status: ACTIVE Aquifer: DRY WELL

REMARKS:
LOCATED NE CORNER OF EARTHEN MANURE STORAGE FACILITY. MAP ON FILE. SOIL SAMPLED AT 9-10' GRAVEL 5.5%, SAND 24.1%, SILT 60%, CLAY 20.4%.

WELL LOG (Imperial units)

From	To(ft.)	Log
0.0	0.3	TOPSOIL
0.3	7.5	SAND, GRAVEL, SILT WITH SOME CLAY DRY LIGHT BROWN
7.5	11	CLAY TILL SOFT DRY LIGHT BROWN SILTY SOME SAND TRACE GRAVEL
11.0	20	CLAY TILL SOFT DAMP BROWN WITH SILT AND SAND TRACE OF GRAVEL
20.0	30	CLAY TILL VERY SOFT DAMP BROWN SILTY SAND POCKETS, TRACE OF GRAVEL

WELL CONSTRUCTION
Top of Casing: 0.0 ft above ground

2017 Jan 20

WELL INFORMATION REPORT

Manitoba

Well PID: 121645

Location: SW21-7-9W
UTMX:526258.1 UTMY:5492024.8 XY Accuracy:No Accuracy
Owner: NOTRE DAME DELOURDES
Driller: UNKNOWN
Well Name: TH #8
Date Completed: 2001 Oct 26
Well Use: TEST WELL
Well Status: ACTIVE Aquifer: DRY WELL

REMARKS:
LOCATED WEST SIDE OF EARTHEN MANURE STORAGE FACILITY. MAP ON FILE. SOIL SAMPLED AT 14-15' GRAVEL 0.8%, SAND 23.8%, SILT 46.4%, CLAY 28.9%. AT 29-30' GRAVEL 0.0%, SAND 0.0%, SILT 78%, CLAY 22%

WELL LOG (Imperial units)

From	To(ft.)	Log
0.0	0.3	TOPSOIL
0.3	2.5	SAND AND GRAVEL
2.5	8.5	CLAY SOFT DRY LIGHT BROWN SILTY SAND
8.5	16	CLAY FIRM DRY BROWN SILTY SAND TRACE OF GRAVEL
16.0	28	CLAY STIFF BROWN SANDY SILT TRACE OF GRAVEL
28.0	30	CLAY SOFT MOIST BROWN SILTY

WELL CONSTRUCTION
Top of Casing: 0.0 ft above ground

2017 Jan 20

WELL INFORMATION REPORT

Manitoba

Well PID: 121643

Location: SW21-7-9W
UTMX:526258.1 UTMY:5492024.8 XY Accuracy:No Accuracy
Owner: NOTRE DAME DELOURDES
Driller: UNKNOWN
Well Name: TH 7
Date Completed: 2001 Oct 26
Well Use: TEST WELL
Well Status: ACTIVE Aquifer: DRY WELL

REMARKS:
CONTINUATION OF TH 6.

WELL LOG (Imperial units)

From	To(ft.)	Log
0.0	15	DRILLED QUICKLY, LOGGED IN TH 6
15.0	22	CLAY SOFT MOIST DARK GREY SANDY SILTY TRACE OF GRAVEL AND SHALE
22.0	30	CLAY SOFT MOIST DARK GREY SANDY SILTY TRACE OF GRAVEL

WELL CONSTRUCTION
Top of Casing: 0.0 ft above ground

2017 Jan 20

WELL INFORMATION REPORT

Manitoba

Well PID: 121642

Location: SW21-7-9W
UTMX:526258.1 UTMY:5492024.8 XY Accuracy:No Accuracy
Owner: NOTRE DAME DELOURDES
Driller: UNKNOWN
Well Name: TH 6
Date Completed: 2001 Oct 26
Well Use: TEST WELL
Well Status: ACTIVE Aquifer: DRY WELL

REMARKS:
LOCATED E OF W SHELTERBELT. MAP ON FILE. SOIL SAMPLED AT 4-5'
GRAVEL 4.9%, SAND 40.6%, SILT 38%, CLAY 17.1%.

WELL LOG (Imperial units)

From	To(ft.)	Log
0.0	0.5	TOPSOIL
0.5	9	CLAY SOFT MOIST BROWN SANDY SILT AND GRAVEL
9.0	15	CLAY SOFT MOIST DARK GREY SANDY SILT AND GRAVEL
15.0	20	CLAY SOFT MOIST DARK GREY SANDY SILT AND GRAVEL

WELL CONSTRUCTION
Top of Casing: 0.0 ft above ground

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.)		5	9	-
Feeder (900 lb.)		7	12	-
Feeder (1250 lb.)		10	15	-
Cow/calf pair		12	15	-
Dry cow		10	12	-
Milking cow		25	30	-
Bison		8	10	-
Horses				
Horses		8	11	-
Hogs				
Sow (Farrow/wean)		6.5		-
Dry Sow/Boar		4		-
Feeder	13,000	3		39,000
Nursery (33 lb.)		2		-
Chickens				
Broilers		0.035		-
Roasters/Pullets		0.04		-
Layers		0.055		-
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)		**39,000**

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.

Enter this number on page 7 of Application Form.

Other consumption values:

Normal household consumption:
40-55 IG/day per person or
(180-250 l/day/person)

Hydrant flow:
10 imperial GPM (45 l/min)

Unit Conversions		
Total per day	**Total per year**	**Unit**
39,000	**14,235,000**	**IG**
177,294	**64,712,310**	**litres**
0.177	**65**	**cubic decametres (dam^3)**

Enter this number on page 7 of Application Form.

Conversion Factor: 1 IGPM = 4.546 l/m

Animal Type (A)	Animal Sub-type (B)	Daily Manure Production				Production Period [2] (Days) (G)	Number of Animals [3] (Capacity) (H)	Total Manure Volume (ft^3) (FxGxH)	Total Manure Volume for Semi-Solid and Liquid Manure (Imp Gal)
		References (C)	Manure Type (D)	Default Manure Production (ft^3/animal/day) (E)	Operation Manure Production [1] (ft^3/animal/day) (F)				
Dairy (milking cows[4] and associated livestock)	Free Stall	Table 6, pg 59, FPGs for Dairy 1995	Semi-Solid [5]	3.5				-	0.0
			Solid	3.4				-	
			Liquid [5]	3.5				-	0.0
	Tie Stall		Semi-Solid [5]	3.6				-	0.0
			Solid	3.5				-	
			Liquid [5]	3.6				-	0.0
	Loose Housing		Solid	3.0				-	
	Milking Parlour Manure and Washwater		Liquid	0.5					
Beef	Beef cows including associated livestock	pg 117, FPGs for Hogs 1998	Solid	1.2				-	
	Backgrounder (200 day)		Solid	0.73				-	
	Summer pasture / replacement heifers		Solid	0.85				-	
	Feeder cattle		Solid	1.1				-	
Pigs	Sows - farrow to finish (234 - 254 lbs)	MAFRI website, FPGs for Pigs 2007	Liquid	2.3				-	0.0
	Sows - farrow to wean (up to 11 lbs)		Liquid	0.8				-	0.0
	Sows - farrow to nursery (51 lbs)		Liquid	1				-	0.0
	Weanlings, Nursery (11 - 51 lbs)		Liquid	0.1				-	0.0
	Grower / Finisher (51 - 249 lbs)		Liquid	0.25	0.17	400.00	13,000	884,000.00	5,507,320.0

Animal Type	Type of Operation		Yearly Manure Production		Production Period [2] (Days)	Number of Birds [3] (Capacity)	Total Manure Volume (ft^3) (F/365xGxH)	Total Manure Volume for Semi-Solid and Liquid Manure (Imp Gal)
			Default Manure Production (ft^3/year/bird space)	Operation Manure Production [1] (ft^3/year/bird space)				
Chickens	Broilers – floor [6]	Table 3, pg 85, FPGs for Poultry 2000	1.23				-	
	Broiler breeder hens [7]		2.3				-	
	Broiler breeder pullets [6]		0.99				-	
	Roasters – floor [6]		1.16				-	
	Layers – cage [8]		2.33				-	0.0
	Layers – floor [7]		1.68				-	
	Layers – solid pack [9]						-	
	Pullets – cage [8]		0.71				-	0.0
	Pullets – floor [6]		0.75				-	
	Pullets – solid pack [9]						-	
Turkeys	Broilers [6]	Table 3, pg 85, FPGs for Poultry 2000	2.83				-	
	Heavy toms [6]		5.58				-	
	Heavy hens [6]		3.32				-	

Sizing of a manure storage facility in accordance with all requirements of the *Livestock Manure and Mortalities Management Regulation* (M.R. 42/98) is the responsibility of the operator.

Instructions and footnotes:

[1] ENTER the manure production estimate for your operation. If no estimate is available, use the default value provided in colum E. References for default daily and yearly manure production are provided in column C.

[2] ENTER the number of days worth of manure that will be produced. For earthen manure storage facilities the minimum storage requirement is 400 days. For steel and concrete manure storage facilities the minimum storage requirement is 250

[3] ENTER the total number of animals or birds that the operation can hold (e.g. barn or feedlot capacity).

[4] Milking cows includes all lactating and dry cows.

[5] Default manure production estimates for semi-solid and liquid dairy manure include manure and washwater from the milking parlour.

[6] 2 inches of wood shavings or 4 inches of straw placed on floor. Manure and litter removed from barn at 25% moisture content, with a density of 20 lb/ft^3

[7] One-third litter floor, two-thirds slatted floor. Manure and litter removed from barn at 40% moisture content, with a density of 25 lb/ft^3

[8] Manure removed from barn at 90% moisture content with a density of 59 lb/ft^3

[9] Poultry operations using litter (solid pack) must provide an estimate of yearly manure production

Existing and Proposed Manure Storage Facility Dimension Table

If applicable, indicate the dimensions of any existing manure storage facility (MSF) that will be used to store manure from the proposed project:

CELL	Existing Manure Storage Facility Dimensions						Storage Capacity (days)
	Width	Length	Depth	Height (Above Grade)	Slope (H:L)		
					Inside	Outside	
Primary	224 ft	64 ft	16 ft	5 ft	3:1	5:1	Total for both cells = 400 days
Secondary	230 ft	131	15	5	3:1	5:1	
Tertiary	ft	ft	ft	ft			
Circular Tank		Diameter	Height	Depth (Above Grade)			
		ft	ft	ft			

Permit/Registration # M561 ; LR - 098 - 003

Manitoba

November 30, 2016

Mr Rick Prejet
Porcherie Notre Dame Ltee
Box 40
Notre Dame de Lourdes, MB
R0G 1M0

E-mail: lacdonze@mts.net
SENT BY E-MAIL

Manitoba Pork Council
28 Terracon Place
Winnipeg, Manitoba
Canada R2J 4G7

Tel: (204) 237-7447
Fax: (204) 237-9831
www.manitobapork.com

Dear Mr Prejet:

This is CONFIRMATION that in the opinion of *Manitoba Pork*, the proposed expanded pig operation described below, appears to meet the criteria of the *Pig Production Special Pilot Project – Evaluation Protocol*, based on the information provided by the applicant.

Re: Proposal to expand five existing pig barns, *Manitoba Pork* File Number: **004-16/11-Porcherie Notre Dame Ltee-Prejet**

Please accept this as your confirmation letter stating that in the opinion of Manitoba Pork, your proposed pig barn, meets the criteria of the *Pig Production Special Pilot Project – Evaluation Protocol (Protocol)*. This confirmation is based upon the information you provided as outlined below. Submit this letter along with your conditional use application to the TRC review.

In accordance with the *Protocol*, we understand the following about your proposed new pig operation:

1. That five existing pig barns are proposed to be expanded.
2. Owner of the pig barns: Porcherie Notre Dame Ltee.
3. Applicant's name, if different from owner: Rick Prejet.
4. Location of proposed operation: SW 21-7-9 WPM, RM of Norfolk.
5. Type of operation being proposed: Expansion of an existing finisher operation.
6. The animals are proposed to be marketed: At a Manitoba processing plant.
7. Size of the proposed operation by number of AUs: 5 existing barns, currently of 2100 finisher spaces (300 AUs) each, are proposed to be expanded to 2600 spaces (372 AUs) each. The total size of the 5 existing barns is currently 1500 AUs, proposed to be expanded to 1850 AUs, for a total expansion of 360 AUs (or a 72 AU expansion per barn).
8. Approximate size of barns: Existing 5 barns are 90' x 178', 16,020 sq ft, (27m x 54m, 1500 sq m) each. They will be expanded by approximately 4500 sq ft (418 sq m) each.

9. Type of manure storage facility being proposed: Existing 2-cell earthen manure storage.

10. Size of manure storage facility: Existing manure storage of 6 million gallons has sufficient capacity (over 400 days) to accommodate the expected additional pigs without expanding the lagoon.

11. Type of odour control measures being proposed: Shelter belts and significant distance from neighbouring residences.

It is understood that you will comply with the attached *Protocol* in the ongoing management of your operation, including that:

- all manure from your operation will be injected and/or incorporated within 48 hours of application,
- you will require long term access to manure spread fields at a 1x phosphorous application rate (even though you do not have to apply the manure at that rate) – and all of these fields must be identified as a part of your full application process,
- all manure spread fields will be permanently maintained below 60 ppm, and
- other requirements as outlined in the *Protocol*.

If you make any significant changes to your proposed project during the application process which alters any of the information as stated above, or alters any of the numbers by 10% or more, please notify our office.

As we understand it, your next step is to apply for a Conditional Use permit from the municipality which will include a Technical Review Committee (TRC) process – you will need considerably more detailed information for that process. You may wish to contact **Don Malinowski**, Technical Review Coordinator (204-945-8353), for the requirements of the TRC review – or you can go to their website: gov.mb.ca/ia/livestock/index . For additional information, see our booklet *'Building a Pig Barn in Manitoba-A Step by Step Guide'*, on our website (www.manitobapork.com) which outlines the main steps of what is required to build a new barn.

Yours sincerely,

A.T. Dickson

Andrew Dickson
General Manager

MANURE APPLICATION FIELD CHARACTERISTICS TABLE

Manitoba

	A	B	C	D	E	F	G	H	I	J
Field	Legal Description	Rural Municipality	O/C/L/A	Total Acreage	Setbacks, including features	Net Acreage for Manure Application	Agriculture Capability Class and Subclass	Soil Phosphorus (ppm Olsen P) 0-6 Inches	Development Plan Designation	Zoning
1	SW 3-7-9W	Norfolk Treherne	A	50		50	2W	22	By-Law #2016:Ag	By-Law #2452-05:Ag general
2	4-7-9W	Norfolk Treherne	A	610		610	2T, 3M	8-15	By-Law #2016:Ag	By-Law #2452-05:Ag general
3	N 1/2 5-7-9W	Norfolk Treherne	A	240		240	2T, 5M	13	By-Law #2016:Ag	By-Law #2452-05:Ag general
4	SE 8-7-9 W	Norfolk Treherne	A	80		80	2T, 3M	13	By-Law #2016:Ag	By-Law #2452-05:Ag general
5	SE 9-7-9W	Norfolk Treherne	A	140		140	2T, 3M	21	By-Law #2016:Ag	By-Law #2452-05:Ag general
6	NE 9-7-9W	Norfolk Treherne	A	155	In field Drain	150	3M	32	By-Law #2016:Ag	By-Law #2452-05:Ag general
7	SE 10-7-9W	Norfolk Treherne	A	155		155	2T, 4T	29	By-Law #2016:Ag	By-Law #2452-05:Ag general
8	W 1/2 10-7-9W	Norfolk Treherne	A	236		236	2T, 3M,4T	14-53	By-Law #2016:Ag	By-Law #2452-05:Ag general
9	NE 10-7-9W	Norfolk Treherne	A	160		160	2T	17	By-Law #2016:Ag	By-Law #2452-05:Ag general
10	SW 11-7-9W	Norfolk Treherne	A	99		99	4T	14-58	By-Law #2016:Ag	By-Law #2452-05:Ag general
11	SE 11-7-9W	Norfolk Treherne	A	80		80	4T	40	By-Law #2016:Ag	By-Law #2452-05:Ag general
12	NW 11-7-9W	Norfolk Treherne	A	93		93	2T	23	By-Law #2016:Ag	By-Law #2452-05:Ag general
13	NE 11-7-9W	Norfolk Treherne	A	135		135	2T, 3T	19	By-Law #2016:Ag	By-Law #2452-05:Ag general
14	SW 14-7-9W	Norfolk Treherne	A	155	In field drain	150	2T	42	By-Law #2016:Ag	By-Law #2452-05:Ag general
15	SE 14-7-9W	Norfolk Treherne	A	155	In field drain	150	2T, 4T	23	By-Law #2016:Ag	By-Law #2452-05:Ag general
16	NW 14-7-9W	Norfolk Treherne	A	155		155	4T	18	By-Law #2016:Ag	By-Law #2452-05:Ag general
17	NE 14-7-9W	Norfolk Treherne	A	148		148	3T, 4T	26	By-Law #2016:Ag	By-Law #2452-05:Ag general
18	SW 15-7-9W	Norfolk Treherne	A	150		150	2T, 3T	25	By-Law #2016:Ag	By-Law #2452-05:Ag general
19	NW 15-7-9W	Norfolk Treherne	A	150		130	2T, 3T	30	By-Law #2016:Ag	By-Law #2452-05:Ag general
20	SE 15-7-9W	Norfolk Treherne	A	130	Potholes	128	2T	21	By-Law #2016:Ag	By-Law #2452-05:Ag general
					Total Net Acreage for Manure Application:					

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 (ex. C/A for Crown lands that are under a spread agreement with the producer that holds the agricultural Crown land lease).
D. _____ Enter the total acreage for the parcel.
E. _____ Enter setbacks from surface water or groundwater features that reduce the land available for manure application; include identification of type of feature (ex. 8m, Order 3 drain).
F. _____ 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.
G. _____ Enter the agriculture capability class and subclass ratings for the acreage available for manure application.
H. _____ 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 12 months old and must be completed by an accredited soil-testing laboratory.
I. _____ Indicate the Development Plan and its by-law number in addition to the map designation for each field (ex. By-law #1/2008: AG).
J. _____ Indicate the Zoning By-law and its by-law number in addition to the zoning for each field (ex. By-law 12/2009: AG 80).

MANURE APPLICATION FIELD CHARACTERISTICS TABLE

Manitoba

	A	B	C	D	E	F	G	H	I	J
Field	Legal Description	Rural Municipality	O/C/L/A	Total Acreage	Setbacks, including features	Net Acreage for Manure Application	Agriculture Capability Class and Subclass	Soil Phosphorus (ppm Olsen P) 0-6 inches	Development Plan Designation	Zoning
1	NE 15-7-9W	NorfolkTreherne	A	150		150	3TE	15	By-law #2016: Ag	By-law # 2452-05 Ag general
2	SW 16-7-9 W	NorfolkTreherne	A	116		105	3M, 5M	27-50	By-law #2016: Ag	By-law # 2452-05 Ag general
3	SE 16-7-9W	NorfolkTreherne	A	107		107	3M, 3T	31-46	By-law #2016: Ag	By-law # 2452-05 Ag general
4	N 16-7-9W	NorfolkTreherne	A	213		213	4T, 4TE	16-44	By-law #2016: Ag	By-law # 2452-05 Ag general
5	S 21-7-9	NorfolkTreherne	A/O	240	Potholes	230	3T	17-39	By-law #2016: Ag	By-law # 2452-05 Ag general
6	N 21-7-9W	NorfolkTreherne	A	165	In field drain	160	1, 2T, 5T	25	By-law #2016: Ag	By-law # 2452-05 Ag general
7	SW 22-7-9W	NorfolkTreherne	A	110		110	3T, 3MT, 4T	14	By-law #2016: Ag	By-law # 2452-05 Ag general
8	SW 23-7-9	NorfolkTreherne	A	100		100	4TE	23	By-law #2016: Ag	By-law # 2452-05 Ag general
9	NW 24-7-9W	NorfolkTreherne	A	145	In field drain	120	4TE	10	By-law #2016: Ag	By-law # 2452-05 Ag general
10	SW 27-7-9W	NorfolkTreherne	A	128		128	2W, 4T	22	By-law #2016: Ag	By-law # 2452-05 Ag general
11	NW 27-7-9W	NorfolkTreherne	A	80		80	4T, 5W	20	By-law #2016: Ag	By-law # 2452-05 Ag general
12	SW 28-7-9W	NorfolkTreherne	A	113		113	1I, 2TE, 5T	17-34	By-law #2016: Ag	By-law # 2452-05 Ag general
13										
14										
15										
16										
17										
18										
19										
20										
					Total Net Acreage for Manure Application:	4,855				

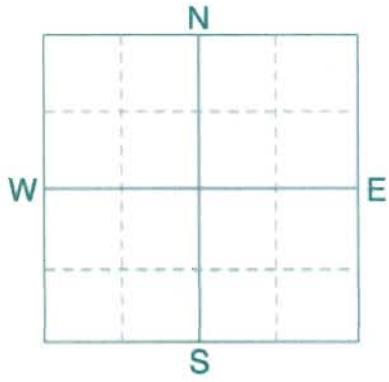
A. _____ Enter the legal description for each parcel of land that will receive manure: Sec, Twp, Rge or River Lot (including parish).
B. _____ Identify the Rural Municipality in which the parcel is located.
C. _____ Indicate how the land has been secured for manure application: O – Own / C-Crown / L – Lease / A – Agreement. Multiple designations may be used as appropriate (ex. C/A for Crown lands that are under a spread agreement with the producer that holds the agricultural Crown land lease).
D. _____ Enter the total acreage for the parcel.
E. _____ Enter setbacks from surface water or groundwater features that reduce the land available for manure application; include identification of type of feature (ex. 8m, Order 3 drain).
F. _____ 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.
G. _____ Enter the agriculture capability class and subclass ratings for the acreage available for manure application.
H. _____ 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 12 months old and must be completed by an accredited soil-testing laboratory.
I. _____ Indicate the Development Plan and its by-law number in addition to the map designation for each field (ex. By-law #1/2008: AG).
J. _____ Indicate the Zoning By-law and its by-law number in addition to the zoning for each field (ex. By-law 12/2009: AG 80).

CO-OP AG TEAM

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

SOIL TEST REPORT

FIELD ID **SW 3-7-9W**
SAMPLE ID **7 purple**
FIELD NAME
COUNTY
TWP **7** RANGE **9**
SECTION **3** QTR **SW** ACRES **50**
PREV. CROP **Wheat-Spring**



SUBMITTED FOR:
LA FERME PEMBINA

SUBMITTED BY: **PE0510**
PEMBINA COOP-NOTRE DAME
NORTH AGRO 31-6-8
BOX 465
NOTRE DAME, MB **R0G 1M0**

REF # **1765274** BOX # **0**
LAB # **NW150833**

Date Sampled **10/22/2016** Date Received **10/27/2016** Date Reported **1/9/2017**

Nutrient In The Soil			Interpretation (VLow / Low / Med / High)
Nitrate	0-6"	14 lb/ac	
	6-24"	24 lb/ac	
	0-24"	38 lb/ac	
Phosphorus	Olsen	22 ppm	
Potassium		243 ppm	
Chloride			
Sulfur	0-6"	22 lb/ac	
	6-24"	42 lb/ac	
Boron			
Zinc			
Iron			
Manganese			
Copper			
Magnesium			
Calcium			
Sodium			
Org.Matter		3.3 %	
Carbonate(CCE)			
Sol. Salts	0-6"	0.3 mmho/cm	
	6-24"	0.42 mmho/cm	

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
Canola-bu			Canola-bu			Canola-bu		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
40 BU			50 BU			60 BU		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
Band			Band			Band		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N	102		N	137		N	172	
P_2O_5	10	Band (Starter)*	P_2O_5	10	Band (Starter)*	P_2O_5	10	Band (Starter)*
K_2O	0		K_2O	0		K_2O	0	
Cl			Cl			Cl		
S	15	Band	S	15	Band	S	15	Band
B			B			B		
Zn			Zn			Zn		
Fe			Fe			Fe		
Mn			Mn			Mn		
Cu			Cu			Cu		
Mg			Mg			Mg		
Lime	0		Lime	0		Lime	0	

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" 6.8 6-24" 7.8							

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 = 36 K2O = 18 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

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 = 45 K2O = 23 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

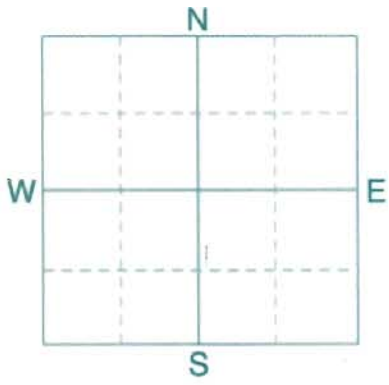
Crop 3: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 54 K2O = 27 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

CO-OP AG TEAM

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

SOIL TEST REPORT

FIELD ID **NE 4-7-9**
SAMPLE ID **2 purple**
FIELD NAME
COUNTY
TWP **7** RANGE **9**
SECTION **4** QTR **NE** ACRES **150**
PREV. CROP **Wheat-Spring**



SUBMITTED FOR:
LA FERME PEMBINA

SUBMITTED BY: **PE0510**
PEMBINA COOP-NOTRE DAME
NORTH AGRO 31-6-8
BOX 465
NOTRE DAME, MB **R0G 1M0**

REF # **1703774** BOX # **0**
LAB # **NW104351**

Date Sampled **10/03/2016** Date Received **10/05/2016** Date Reported **1/9/2017**

Nutrient In The Soil		Interpretation (VLow / Low / Med / High)
Nitrate 0-6"	6 lb/ac	
Nitrate 6-24"	9 lb/ac	
Nitrate 0-24"	15 lb/ac	***
Phosphorus (Olsen)	8 ppm	
Potassium	206 ppm	
Chloride 0-24"	28 lb/ac	
Sulfur 0-6"	16 lb/ac	
Sulfur 6-24"	36 lb/ac	
Boron		
Zinc		
Iron		
Manganese		
Copper	0.91 ppm	
Magnesium		
Calcium		
Sodium		
Org.Matter	3.4 %	
Carbonate(CCE)		
Sol. Salts 0-6"	0.39 mmho/cm	
Sol. Salts 6-24"	0.36 mmho/cm	

1st Crop Choice		
Grass Seed		
YIELD GOAL		
1 Season		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	85	
P_2O_5	33	Band *
K_2O	0	
Cl		Not Available
S	5	Band (Trial)
B		
Zn		
Fe		
Mn		
Cu	0	
Mg		
Lime		

2nd Crop Choice		
Grass Seed		
YIELD GOAL		
1 Season		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	85	
P_2O_5	33	Band *
K_2O	0	
Cl		Not Available
S	5	Band (Trial)
B		
Zn		
Fe		
Mn		
Cu	0	
Mg		
Lime		

3rd Crop Choice		
Grass Seed		
YIELD GOAL		
1 Season		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	85	
P_2O_5	33	Band *
K_2O	0	
Cl		Not Available
S	5	Band (Trial)
B		
Zn		
Fe		
Mn		
Cu	0	
Mg		
Lime		

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" 7.0 6-24" 8.0							

Crop 1: ** Chloride yield data is limited for this crop. * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. AGVISE Band guidelines will build P & K test levels to the medium range over many years.

Crop 2: ** Chloride yield data is limited for this crop. * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. AGVISE Band guidelines will build P & K test levels to the medium range over many years.

Crop 3: ** Chloride yield data is limited for this crop. * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. AGVISE Band guidelines will build P & K test levels to the medium range over many years.

CO-OP AG TEAM

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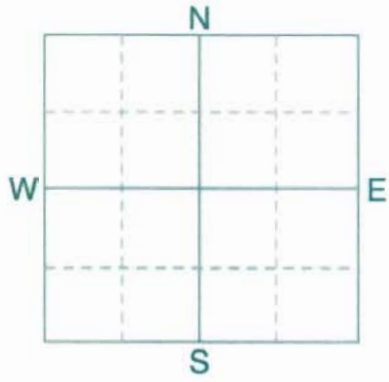
Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **NW 4-7-9**
SAMPLE ID **11 purple**
FIELD NAME
COUNTY
TWP **7** RANGE **9**
SECTION **4** QTR **NW** ACRES **150**
PREV. CROP **Grass Seed**



SUBMITTED FOR:
LA FERME PEMBINA

SUBMITTED BY: **PE0510**
PEMBINA COOP-NOTRE DAME
NORTH AGRO 31-6-8
BOX 465
NOTRE DAME, MB **R0G 1M0**

REF # **1807750** BOX # **0**
LAB # **NW192455**

Date Sampled **11/22/2016** Date Received **11/26/2016** Date Reported **1/9/2017**

Nutrient In The Soil		Interpretation (VLow Low Med High)
Nitrate	0-6" 19 lb/ac 6-24" 18 lb/ac 0-24" 37 lb/ac	
Phosphorus	Olsen 15 ppm	
Potassium	183 ppm	
Chloride		
Sulfur	0-6" 14 lb/ac 6-24" 18 lb/ac	
Boron		
Zinc		
Iron		
Manganese		
Copper		
Magnesium		
Calcium		
Sodium		
Org.Matter	3.2 %	
Carbonate(CCE)		
Sol. Salts	0-6" 0.3 mmho/cm 6-24" 0.36 mmho/cm	

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
Canola-bu			Canola-bu			Canola-bu		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
40 BU			50 BU			60 BU		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
Band			Band			Band		
	LB/ACRE	APPLICATION		LB/ACRE	APPLICATION		LB/ACRE	APPLICATION
N	103		N	138		N	173	
P_2O_5	20	Band *	P_2O_5	25	Band *	P_2O_5	30	Band *
K_2O	0		K_2O	0		K_2O	0	
Cl			Cl			Cl		
S	17	Band	S	17	Band	S	17	Band
B			B			B		
Zn			Zn			Zn		
Fe			Fe			Fe		
Mn			Mn			Mn		
Cu			Cu			Cu		
Mg			Mg			Mg		
Lime	0		Lime	0		Lime	0	

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" 6.4 6-24" 7.5							

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 = 36 K2O = 18 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

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 = 45 K2O = 23 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

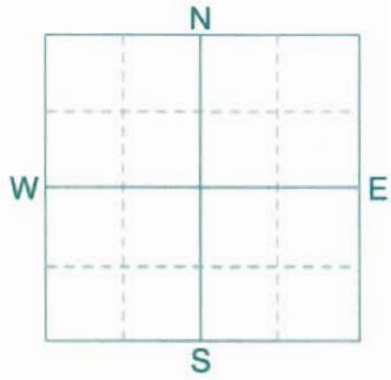
Crop 3: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 54 K2O = 27 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

CO-OP AG TEAM

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

SOIL TEST REPORT

FIELD ID **N - SH 4-7-9**
SAMPLE ID **13 blue**
FIELD NAME
COUNTY
TWP **7** RANGE **9**
SECTION **4** QTR **SH** ACRES **190**
PREV. CROP **Wheat-Spring**



SUBMITTED FOR:
LA FERME PEMBINA

SUBMITTED BY: **PE0510**
PEMBINA COOP-NOTRE DAME
NORTH AGRO 31-6-8
BOX 465
NOTRE DAME, MB R0G 1M0

REF # **1807778** BOX # **0**
LAB # **NW195281**

Date Sampled **11/23/2016** Date Received **11/29/2016** Date Reported **1/9/2017**

Nutrient In The Soil			Interpretation
			VLow Low Med High
Nitrate	0-6"	19 lb/ac	
	6-24"	30 lb/ac	
	0-24"	49 lb/ac	
Phosphorus	Olsen	14 ppm	
Potassium		180 ppm	
Chloride	0-24"	20 lb/ac	
Sulfur	0-6"	12 lb/ac	
	6-24"	24 lb/ac	
Boron			
Zinc			
Iron			
Manganese			
Copper		1.0 ppm	
Magnesium			
Calcium			
Sodium			
Org.Matter		3.9 %	
Carbonate(CCE)			
Sol. Salts	0-6"	0.33 mmho/cm	
	6-24"	0.33 mmho/cm	

1st Crop Choice		
Corn-Grain		
YIELD GOAL		
140 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	119	
P_2O_5	27	Band *
K_2O	12	Band *
Cl		Not Available
S	7	Band (Trial)
B		
Zn		
Fe		
Mn		
Cu	0	
Mg		
Lime		

2nd Crop Choice		
Corn-Grain		
YIELD GOAL		
150 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	131	
P_2O_5	29	Band *
K_2O	13	Band *
Cl		Not Available
S	7	Band (Trial)
B		
Zn		
Fe		
Mn		
Cu	0	
Mg		
Lime		

3rd Crop Choice		
Corn-Grain		
YIELD GOAL		
160 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	143	
P_2O_5	31	Band *
K_2O	14	Band *
Cl		Not Available
S	7	Band (Trial)
B		
Zn		
Fe		
Mn		
Cu	0	
Mg		
Lime		

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" 7.2 6-24" 7.9							

Crop 1: ** Chloride yield data is limited for this crop. * 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 = 38 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

Crop 2: ** Chloride yield data is limited for this crop. * 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 = 60 K2O = 41 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

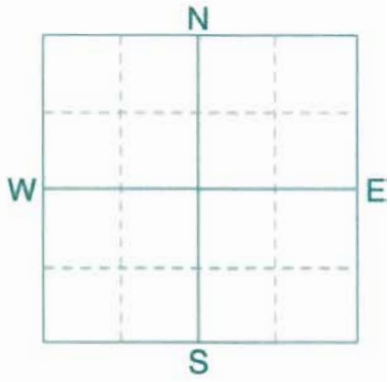
Crop 3: ** Chloride yield data is limited for this crop. * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 64 K2O = 43 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

CO-OP AG TEAM

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

SOIL TEST REPORT

FIELD ID **S - SH 4-7-9**
SAMPLE ID **14 red**
FIELD NAME
COUNTY
TWP **7** RANGE **9**
SECTION **4** QTR **SH** ACRES **120**
PREV. CROP **Grass Seed**



SUBMITTED FOR:
LA FERME PEMBINA

SUBMITTED BY: **PE0510**
PEMBINA COOP-NOTRE DAME
NORTH AGRO 31-6-8
BOX 465
NOTRE DAME, MB R0G 1M0

REF # **1808707** BOX # **0**
LAB # **NW195318**

Date Sampled **11/24/2016** Date Received **11/29/2016** Date Reported **1/9/2017**

Nutrient In The Soil			Interpretation (VLow Low Med High)
Nitrate	0-6"	17 lb/ac	
	6-24"	12 lb/ac	
	0-24"	29 lb/ac	
Phosphorus	Olsen	12 ppm	
Potassium		155 ppm	
Chloride			
Sulfur	0-6"	16 lb/ac	
	6-24"	42 lb/ac	
Boron			
Zinc			
Iron			
Manganese			
Copper			
Magnesium			
Calcium			
Sodium			
Org.Matter		3.2 %	
Carbonate(CCE)			
Sol. Salts	0-6"	0.38 mmho/cm	
	6-24"	0.44 mmho/cm	

1st Crop Choice		
Soybeans		
YIELD GOAL		
40 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	***	
P_2O_5	26	Band *
K_2O	15	Band *
Cl		
S	5	Band (Trial)
B		
Zn		
Fe		
Mn		
Cu		
Mg		
Lime	0	

2nd Crop Choice		
Soybeans		
YIELD GOAL		
50 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	***	
P_2O_5	32	Band *
K_2O	19	Band *
Cl		
S	5	Band (Trial)
B		
Zn		
Fe		
Mn		
Cu		
Mg		
Lime	0	

3rd Crop Choice		
Soybeans		
YIELD GOAL		
60 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	***	
P_2O_5	38	Band *
K_2O	23	Band *
Cl		
S	5	Band (Trial)
B		
Zn		
Fe		
Mn		
Cu		
Mg		
Lime	0	

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" 6.9 6-24" 7.7							

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 = 35 K2O = 60 AGVISE Band guidelines will build P & K test levels to the medium range over many years. Soybeans may respond to nitrogen on fields testing less than 60 lb/ac with a limited soybean history.

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 = 44 K2O = 75 AGVISE Band guidelines will build P & K test levels to the medium range over many years. 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 = 53 K2O = 90 AGVISE Band guidelines will build P & K test levels to the medium range over many years. Soybeans may respond to nitrogen on fields testing less than 60 lb/ac with a limited soybean history.

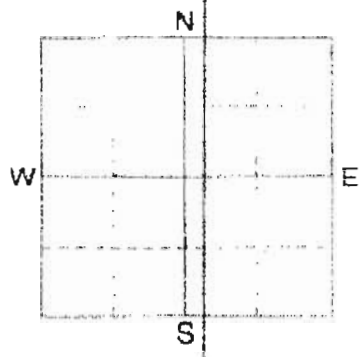
2015
TOO WET IN 2016

CO-OP AG TEAM

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

SOIL TEST REPORT

FIELD ID NH S 7-9W S6 8 7-9W
SAMPLE ID 22
FIELD NAME NORM PREJET
COUNTY
TWP 7 RANGE 9
SECTION 5 QTR NH ACRES 320
PREV. CROP Soybeans



SUBMITTED FOR:
NORM PREJET

SUBMITTED BY: PE0510
PEMBINA COOP-NOTRE DAME
NORTH AGRO 31-6-8
BOX 465
NOTRE DAME, MB R0G 1M0

REF # 1324871 BOX # 0
LAB # NW108396

Date Sampled 09/28/2015 Date Received 10/02/2015 Date Reported 10/5/2015

Nutrient In The Soil		Interpretation	1st Crop Choice		2nd Crop Choice		3rd Crop Choice	
		Low Med High	Wheat-Spring		Wheat-Spring		Wheat-Spring	
	10 lb/ac		YIELD GOAL		YIELD GOAL		YIELD GOAL	
	6 lb/ac		50 BU		60 BU		70 BU	
	16 lb/ac		SUGGESTED GUIDELINES		SUGGESTED GUIDELINES		SUGGESTED GUIDELINES	
			Band		Band		Band	
	13 ppm		LB/ACRE	APPLICATION	LB/ACRE	APPLICATION	LB/ACRE	APPLICATION
	167 ppm		N 104		N 131		N 158	
	12 lb/ac		P_2O_5 21	Band *	P_2O_5 25	Band *	P_2O_5 29	Band *
	10 lb/ac		K_2O 12	Band *	K_2O 14	Band *	K_2O 16	Band *
	12 lb/ac		Cl 28	Broadcast	Cl 28	Broadcast	Cl 28	Broadcast
			S 7	Band (Trial)	S 7	Band (Trial)	S 7	Band (Trial)
			B		B		B	
			Zn		Zn		Zn	
			Fe		Fe		Fe	
	0.76 ppm		Mn		Mn		Mn	
			Cu 1	Band (Trial)	Cu 1	Band (Trial)	Cu 1	Band (Trial)
			Mo		Mo		Mo	
			Lime		Lime		Lime	
	3.9 %							
	0.26 mmho/cm							
	0.31 mmho/cm							

Soil pH	Buffer pH	Cation Exchange Capacity	Base Saturation (Typical Range) % Ca	% Mg	% K	% Na	% H
0-6" 7.2							
6-24" 8.0							

Crop 1: 61 lbs of 0-0-60 = 28 lbs of Chloride" * 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 = 31 K2O = 19 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

Crop 2: 61 lbs of 0-0-60 = 28 lbs of Chloride" * 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 = 38 K2O = 23 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

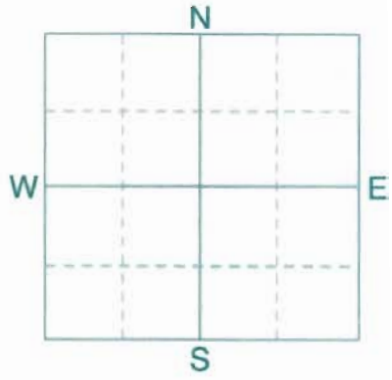
Crop 3: 61 lbs of 0-0-60 = 28 lbs of Chloride" * Caution: Seed Placed Fertilizer Can Cause Injury * Nitrogen is credited 15 lbs for the previous crop. Nitrogen credits may need to be adjusted based on local conditions. Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 44 K2O = 26 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

CO-OP AG TEAM

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

SOIL TEST REPORT

FIELD ID **SE 9-7-9**
SAMPLE ID **6 green**
FIELD NAME
COUNTY
TWP **7** RANGE **9**
SECTION **9** QTR **SE** ACRES **140**
PREV. CROP **Wheat-Spring**



SUBMITTED FOR:
LA FERME PEMBINA

SUBMITTED BY: **PE0510**
PEMBINA COOP-NOTRE DAME
NORTH AGRO 31-6-8
BOX 465
NOTRE DAME, MB R0G 1M0

REF # **1765273** BOX # **0**
LAB # **NW146031**

Date Sampled **10/22/2016** Date Received **10/25/2016** Date Reported **1/9/2017**

Nutrient In The Soil			Interpretation			
			VLow	Low	Med	High
Nitrate	0-6"	12 lb/ac				
	6-24"	21 lb/ac				
	0-24"	33 lb/ac				
Phosphorus	Olsen	21 ppm				
Potassium		180 ppm				
Chloride						
Sulfur	0-6"	8 lb/ac				
	6-24"	48 lb/ac				
Boron						
Zinc						
Iron						
Manganese						
Copper						
Magnesium						
Calcium						
Sodium						
Org.Matter		2.5 %				
Carbonate(CCE)						
Sol. Salts	0-6"	0.28 mmho/cm				
	6-24"	0.23 mmho/cm				

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
Canola-bu			Canola-bu			Canola-bu		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
40 BU			80 BU			60 BU		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
Band			Band			Band		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N	107		N	247		N	177	
P_2O_5	10	Band (Starter)*	P_2O_5	16	Band *	P_2O_5	12	Band *
K_2O	0		K_2O	0		K_2O	0	
Cl			Cl			Cl		
S	19	Band	S	19	Band	S	19	Band
B			B			B		
Zn			Zn			Zn		
Fe			Fe			Fe		
Mn			Mn			Mn		
Cu			Cu			Cu		
Mg			Mg			Mg		
Lime			Lime			Lime		

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" 7.6 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 = 36 K2O = 18 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

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 = 72 K2O = 36 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

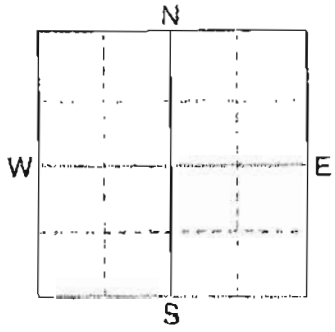
Crop 3: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 54 K2O = 27 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

CO-OP AG TEAM

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

SOIL TEST REPORT

FIELD ID SE 15-7-9W
SAMPLE ID 1
FIELD NAME
COUNTY
TWP 7 RANGE 9
SECTION 15 QTR SE ACRES 130
PREV. CROP Canola-bu



SUBMITTED FOR:
GUY MABON

SUBMITTED BY: PE0510
PEMBINA COOP-NOTRE DAME
NORTH AGRO 31-6-8
BOX 465
NOTRE DAME, MB ROG 1M0

REF # 1745948 BOX # 0
LAB # NW132029

Date Sampled 10/15/2016 Date Received 10/18/2016 Date Reported 10/20/2016

Nutrient In The Soil		Interpretation			
		VLow	Low	Med	High
Nitrate 0-6"	10 lb/ac	*****			
Nitrate 6-24"	15 lb/ac				
Nitrate 0-24"	25 lb/ac				
Phosphorus Olsen	21 ppm 42 lb/a	******	******	******	******
Potassium	188 ppm	******	******	******	******
Chloride					
Sulfur 0-6"	18 lb/ac	******	******		
Sulfur 6-24"	18 lb/ac	******	******		
Boron					
Zinc					
Iron					
Manganese					
Copper					
Magnesium					
Calcium					
Sodium					
Org.Matter	1.9 %	******			
Carbonate(CCE)					
Sol. Salts 0-6"	0.35 mmho/cm	********			
Sol. Salts 6-24"	0.31 mmho/cm	*******			

1st Crop Choice		
Soybeans		
YIELD GOAL		
40 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	***	
P_2O_5	11	Band *
K_2O	7	Band *
Cl		
S	7	Band (Trial)
B		
Zn		
Fe		
Mn		
Cu		
Mg		
Lime		

2nd Crop Choice		
Soybeans		
YIELD GOAL		
50 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	***	
P_2O_5	14	Band *
K_2O	9	Band *
Cl		
S	7	Band (Trial)
B		
Zn		
Fe		
Mn		
Cu		
Mg		
Lime		

3rd Crop Choice		
Soybeans		
YIELD GOAL		
60 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	***	
P_2O_5	17	Band *
K_2O	11	Band *
Cl		
S	7	Band (Trial)
B		
Zn		
Fe		
Mn		
Cu		
Mg		
Lime		

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" 7.7 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 = 35 K2O = 60 AGVISE Band guidelines will build P & K test levels to the medium range over many years. Soybeans may respond to nitrogen on fields testing less than 60 lb/ac with a limited soybean history.

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 = 44 K2O = 75 AGVISE Band guidelines will build P & K test levels to the medium range over many years. Soybeans may respond to nitrogen on fields testing less than 60 lb/ac with a limited soybean history.

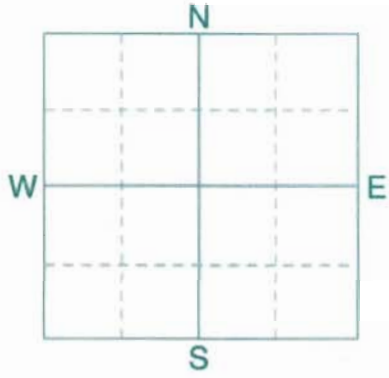
Crop 3: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 53 K2O = 90 AGVISE Band guidelines will build P & K test levels to the medium range over many years. Soybeans may respond to nitrogen on fields testing less than 60 lb/ac with a limited soybean history.

CO-OP AG TEAM

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

SOIL TEST REPORT

FIELD ID **NE 9-7-9**
SAMPLE ID **2**
FIELD NAME
COUNTY
TWP **7** RANGE **9**
SECTION **9** QTR **NE** ACRES **155**
PREV. CROP **Soybeans**



SUBMITTED FOR:
AUBERT COMTE

SUBMITTED BY: **PE0510**
PEMBINA COOP-NOTRE DAME
NORTH AGRO 31-6-8
BOX 465
NOTRE DAME, MB **R0G 1M0**

REF # **1760412** BOX # **0**
LAB # **NW146038**

Date Sampled **10/21/2016** Date Received **10/25/2016** Date Reported **1/9/2017**

Nutrient In The Soil		Interpretation (VLow Low Med High)
Nitrate	0-6" 11 lb/ac 6-24" 9 lb/ac 0-24" 20 lb/ac	****
Phosphorus	Olsen 32 ppm	**********
Potassium	221 ppm	**********
Chloride		
Sulfur	0-6" 18 lb/ac 6-24" 30 lb/ac	**********
Boron		
Zinc		
Iron		
Manganese		
Copper		
Magnesium		
Calcium		
Sodium		
Org.Matter	3.4 %	**********
Carbonate(CCE)		
Soil Salts	0-6" 0.42 mmho/cm 6-24" 0.31 mmho/cm	**********

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
Soybeans			Flax			Flax		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
50 BU			30 BU			40 BU		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
Band			Band			Band		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N	***		N	40		N	70	
P_2O_5	10	Band (Starter)*	P_2O_5	10	Band (Starter)*	P_2O_5	10	Band (Starter)*
K_2O	0		K_2O	0		K_2O	0	
Cl			Cl			Cl		
S	5	Band (Trial)	S	5	Band (Trial)	S	5	Band (Trial)
B			B			B		
Zn			Zn			Zn		
Fe			Fe			Fe		
Mn			Mn			Mn		
Cu			Cu			Cu		
Mg			Mg			Mg		
Lime			Lime			Lime		

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" 7.3 6-24" 8.1							

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 = 44 K2O = 75 AGVISE Band guidelines will build P & K test levels to the medium range over many years. Soybeans may respond to nitrogen on fields testing less than 60 lb/ac with a limited soybean history.

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 = 27 K2O = 15 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

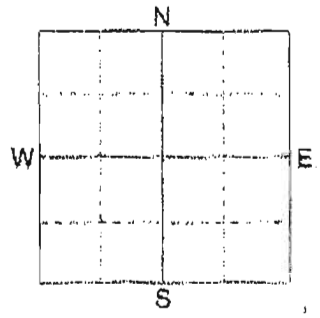
Crop 3: * Caution: Seed Placed Fertilizer Can Cause Injury * Nitrogen is credited 30 lbs for the previous crop. Nitrogen credits may need to be adjusted based on local conditions. Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 36 K2O = 20 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

CO-OP AG TEAM

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

SOIL TEST REPORT

FIELD ID SE 10--7-9W
SAMPLE ID 6
FIELD NAME Andy Collet
COUNTY
TWP 7 RANGE 9
SECTION 10 QTR SE ACRES 155
PREV. CROP Canola-bu



SUBMITTED FOR:
PORCHERIE LAC DU ONZE

SUBMITTED BY: PE0510
PEMBINA COOP-NOTRE DAME
NORTH AGRO 31-6-8
BOX 465
NOTRE DAME, MB R0G 1M0

REF # 1661499 BOX # 0
LAB # NW82548

Date Sampled 09/21/2016 Date Received 09/24/2016 Date Reported 9/27/2016

Nutrient In The Soil		Interpretation			
		VLow	Low	Med	High
Nitrate	0-6" 11 lb/ac 6-24" 12 lb/ac 0-24" 23 lb/ac				
Phosphorus	Olsen 29 ppm 58 lb/A				
Potassium	192 ppm				
Chloride	0-24" 16 lb/ac				
Sulfur	0-6" 18 lb/ac 6-24" 36 lb/ac				
Boron					
Zinc					
Iron					
Manganese					
Copper	0.87 ppm				
Magnesium					
Calcium					
Sodium					
Org.Matter	2.0 %				
Carbonate(CCE)					
Soil Salts	0-6" 0.32 mmho/cm 6-24" 0.27 mmho/cm				

1st Crop Choice		
Wheat-Spring		
YIELD GOAL		
50 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	112	
P_2O_5	15	Band (Starter)*
K_2O	10	Band (Starter)*
Cl	24	Broadcast
S	7	Band (Trial)
B		
Zn		
Fe		
Mn		
Cu	0	
Mg		
Lime		

2nd Crop Choice		
Wheat-Spring		
YIELD GOAL		
60 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	139	
P_2O_5	15	Band (Starter)*
K_2O	10	Band (Starter)*
Cl	24	Broadcast
S	7	Band (Trial)
B		
Zn		
Fe		
Mn		
Cu	0	
Mg		
Lime		

3rd Crop Choice		
Wheat-Spring		
YIELD GOAL		
70 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	166	
P_2O_5	15	Band (Starter)*
K_2O	10	Band (Starter)*
Cl	24	Broadcast
S	7	Band (Trial)
B		
Zn		
Fe		
Mn		
Cu	0	
Mg		
Lime		

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" 7.2 6-24" 7.9							

Crop 1: 52 lbs of 0-0-60 = 24 lbs of Chloride" * 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 = 91 K2O = 19 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

Crop 2: 52 lbs of 0-0-60 = 24 lbs of Chloride" * 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 = 38 K2O = 23 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

Crop 3: 52 lbs of 0-0-60 = 24 lbs of Chloride" * 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 = 44 K2O = 26 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

FarmersEdge

Grower:	FERME GRAND RAVIN	**Sampler:**	HM	**Lot Number:**	161121_002
Grower Field Name:		**Date Sampled:**	November 17, 2016	**Received Date:**	November 21, 2016
FE Field Name:		**Total Acres:**	236	**Delivery Date:**	November 23, 2016
Legal Location:	W 10-7-9 W1			**Client ID:**	09-0022

Sample Description						Macronutrients							
Zone	Lab ID Surface	Lab ID Sub Surface	Zone Acres	Sample Depth	Sample Depth	NO3-N lb/Ac Surf	NO3-N lb/Ac Sub	NO3-N Total lb/Ac	P - Olsen ppm	P-M.Kelowna ppm	K ppm	SO4-S lb/Ac Surface	SO4-S lb/Ac Sub
3	161121_002-01	161121_002-02	30	0-6	6-16	7	14	21	14		160	9	14
4	161121_002-03	161121_002-04	47	0-6	6-18	7	8	15	35		320	5	8
5	161121_002-05	161121_002-06	61	0-6	6-18	13	14	27	30		310	5	10
6	161121_002-07	161121_002-08	59	0-6	6-18	13	24	37	21		240	5	10
7	161121_002-09	161121_002-10	17	0-6	6-24	26	60	86	53		410	7	24

Macronutrients				Cation Exchange and Base Saturation						Texture
Zone	Ca ppm	Mg ppm	Na ppm	CEC meq/100g	Base Sat. %	Ca %	Na %	K %	Mg %	Texture
3	3300	550	57	21.8	100.0	76.0	1.1	1.9	21.0	
4	2000	320	20	15.0	90.0	66.0	0.6	5.5	18.0	
5	2300	290	20	17.4	86.0	67.0	0.5	4.5	14.0	
6	3700	330	19	21.7	100.0	84.0	0.4	2.8	12.0	
7	2500	320	15	17.2	96.0	74.0	0.4	6.1	15.0	

Micronutrients								Soil Quality				
Zone	Cu ppm	Fe ppm	Mn ppm	Zn ppm	B ppm	Cl lb/Ac Surface	Cl lb/Ac Sub	pH (1:2) Surface	pH (1:2) Sub Surface	EC (Sat. Paste Equiv.) dS/m Surf	EC (Sat. Paste Equiv.) dS/m Sub	OM %
3	0.9	62.0	17.0	0.8	0.3	10	15	7.6	8.1	0.48	0.30	3.7
4	0.8	70.0	27.0	0.7	0.2	7	18	6.6	7.9	0.21	0.29	2.7
5	1.0	68.0	21.0	1.4	0.3	9	10	6.4	7.9	0.22	0.29	3.0
6	0.7	57.0	14.0	0.9	0.2	11	25	7.2	7.8	0.43	0.36	3.1
7	0.7	67.0	12.0	5.3	0.4	7	23	6.8	7.8	0.29	0.23	5.3

Comments

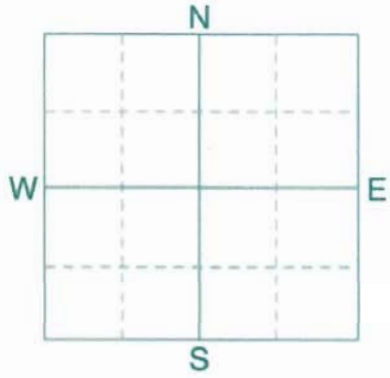
PREVIOUS CROP:CEREAL

CO-OP AG TEAM

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

SOIL TEST REPORT

FIELD ID **NE 10-7-9**
SAMPLE ID **5 light blue**
FIELD NAME
COUNTY
TWP **7** RANGE **9**
SECTION **10** QTR **NE** ACRES **160**
PREV. CROP **Wheat-Spring**



SUBMITTED FOR:
LA FERME PEMBINA

SUBMITTED BY: **PE0510**
PEMBINA COOP-NOTRE DAME
NORTH AGRO 31-6-8
BOX 465
NOTRE DAME, MB R0G 1M0

REF # **1765270** BOX # **0**
LAB # **NW146029**

Date Sampled **10/22/2016** Date Received **10/25/2016** Date Reported **1/9/2017**

Nutrient In The Soil			Interpretation (VLow Low Med High)
Nitrate	0-6"	11 lb/ac	
	6-24"	9 lb/ac	
	0-24"	20 lb/ac	
Phosphorus	Olsen	17 ppm	
Potassium		189 ppm	
Chloride	0-24"	16 lb/ac	
Sulfur	0-6"	4 lb/ac	
	6-24"	6 lb/ac	
Boron			
Zinc			
Iron			
Manganese			
Copper		1.22 ppm	
Magnesium			
Calcium			
Sodium			
Org.Matter		2.6 %	
Carbonate(CCE)			
Sol. Salts	0-6"	0.33 mmho/cm	
	6-24"	0.25 mmho/cm	

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
Grass Seed			Grass Seed			Grass Seed		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
1 Season			1 Season			1 Season		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
Band			Band			Band		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N	80		N	80		N	80	
P_2O_5	0		P_2O_5	0		P_2O_5	0	
K_2O	0		K_2O	0		K_2O	0	
Cl		Not Available	Cl		Not Available	Cl		Not Available
S	12	Band	S	12	Band	S	12	Band
B			B			B		
Zn			Zn			Zn		
Fe			Fe			Fe		
Mn			Mn			Mn		
Cu	0		Cu	0		Cu	0	
Mg			Mg			Mg		
Lime			Lime			Lime		

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" 7.1 6-24" 8.1							

Crop 1: ** Chloride yield data is limited for this crop. * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. AGVISE Band guidelines will build P & K test levels to the medium range over many years.

Crop 2: ** Chloride yield data is limited for this crop. * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. AGVISE Band guidelines will build P & K test levels to the medium range over many years.

Crop 3: ** Chloride yield data is limited for this crop. * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. AGVISE Band guidelines will build P & K test levels to the medium range over many years.

FarmersEdge

Grower:	FERME GRAND RAVIN	Sampler:	HM	Lot Number:	161121_058
Grower Field Name:		Date Sampled:	November 17, 2016	Received Date:	November 21, 2016
FE Field Name:		Total Acres:	99	Delivery Date:	November 23, 2016
Legal Location:	SW 11-7-9 W1			Client ID:	09-0022

Sample Description						Macronutrients							
Zone	Lab ID Surface	Lab ID Sub Surface	Zone Acres	Sample Depth	Sample Depth	NO3-N			P - Olsen	P-M.Kelowna	K	SO4-S	
						lb/Ac Surf	lb/Ac Sub	Total lb/Ac	ppm	ppm	ppm	lb/Ac Surface	lb/Ac Sub
	161121_058-01	161121_058-02	10	0-6	6-16	6	5	11	14		220	<4	7
3	161121_058-03	161121_058-04	23	0-6	6-16	10	8	18	22		250	<4	8
4	161121_058-05	161121_058-06	27	0-6	6-18	11	15	26	39		290	6	12
5	161121_058-07	161121_058-08	27	0-6	6-24	11	22	33	58		390	5	<12
6	161121_058-09	161121_058-10	9	0-6	6-24	14	25	39	52		430	5	14

Macronutrients				Cation Exchange and Base Saturation						Texture
Zone	Ca ppm	Mg ppm	Na ppm	CEC meq/100g	Base Sat. %	Ca %	Na %	K %	Mg %	Texture
	4200	290	13	24.2	100.0	88.0	0.2	2.3	9.8	
3	3100	370	13	19.0	100.0	80.0	0.3	3.4	16.0	
4	3000	340	13	18.5	100.0	81.0	0.3	4.0	15.0	
5	2000	260	11	14.9	88.0	67.0	0.3	6.8	14.0	
6	1900	230	12	15.4	81.0	61.0	0.3	7.2	12.0	

Micronutrients								Soil Quality				
Zone	Cu ppm	Fe ppm	Mn ppm	Zn ppm	B ppm	Cl		pH (1:2)		EC (Sat. Paste Equiv.)		OM %
						lb/Ac Surface	lb/Ac Sub	Surface	Sub Surface	dS/m Surf	dS/m Sub	
	0.7	16.0	3.4	1.0	0.2	5	7	7.8	8.8	0.34	0.21	1.9
3	0.8	32.0	5.7	2.5	0.2	<4	11	7.6	8.4	0.44	0.28	2.5
4	0.8	47.0	8.4	2.5	0.2	6	9	7.5	8.2	0.37	0.26	2.9
5	1.2	76.0	17.0	6.2	0.3	5	14	6.5	7.9	0.19	0.19	3.5
6	0.9	70.0	19.0	5.0	0.3	<4	8	6.2	8.0	0.18	0.30	3.3

Comments

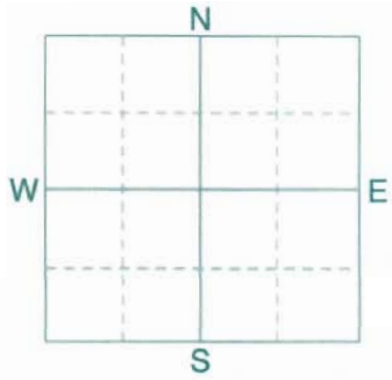
PREVIOUS CROP: CEREAL

CO-OP AG TEAM

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

SOIL TEST REPORT

FIELD ID **SE 11-7-9W**
SAMPLE ID **2**
FIELD NAME
COUNTY
TWP **7** RANGE **9**
SECTION **11** QTR **SE** ACRES **80**
PREV. CROP **Wheat-Spring**



SUBMITTED FOR:
LEO COMTE

SUBMITTED BY: **PE0510**
PEMBINA COOP-NOTRE DAME
NORTH AGRO 31-6-8
BOX 465
NOTRE DAME, MB **R0G 1M0**

REF # **1666476** BOX # **0**
LAB # **NW87431**

Date Sampled **09/22/2016** Date Received **09/28/2016** Date Reported **1/9/2017**

Nutrient In The Soil		Interpretation (VLow Low Med High)
Nitrate	0-6" 17 lb/ac 6-24" 30 lb/ac 0-24" 47 lb/ac	
Phosphorus	Olsen 40 ppm	
Potassium	191 ppm	
Chloride		
Sulfur	0-6" 12 lb/ac 6-24" 42 lb/ac	
Boron		
Zinc		
Iron		
Manganese		
Copper		
Magnesium		
Calcium		
Sodium		
Org.Matter	2.8 %	
Carbonate(CCE)		
Sol. Salts	0-6" 0.34 mmho/cm 6-24" 0.39 mmho/cm	

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
Canola-bu			Canola-bu			Canola-bu		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
40 BU			50 BU			60 BU		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
Band			Band			Band		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N	93		N	128		N	163	
P_2O_5	10	Band (Starter)*	P_2O_5	10	Band (Starter)*	P_2O_5	10	Band (Starter)*
K_2O	0		K_2O	0		K_2O	0	
Cl			Cl			Cl		
S	19	Band	S	19	Band	S	19	Band
B			B			B		
Zn			Zn			Zn		
Fe			Fe			Fe		
Mn			Mn			Mn		
Cu			Cu			Cu		
Mg			Mg			Mg		
Lime			Lime			Lime		

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" 7.6 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 = 36 K2O = 18 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

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 = 45 K2O = 23 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

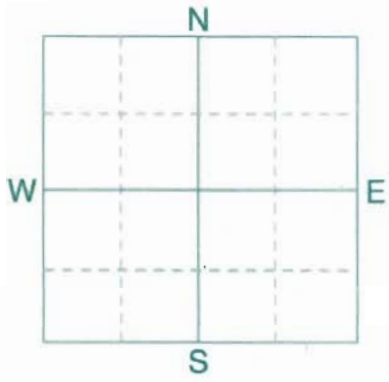
Crop 3: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 54 K2O = 27 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

CO-OP AG TEAM

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

SOIL TEST REPORT

FIELD ID **NW 11-7-9**
SAMPLE ID **4 light blue**
FIELD NAME
COUNTY
TWP **7** RANGE **9**
SECTION **11** QTR **NW** ACRES **93**
PREV. CROP **Wheat-Spring**



SUBMITTED FOR:
LA FERME PEMBINA

SUBMITTED BY: **PE0510**
PEMBINA COOP-NOTRE DAME
NORTH AGRO 31-6-8
BOX 465
NOTRE DAME, MB R0G 1M0

REF # **1740154** BOX # **0**
LAB # **NW132033**

Date Sampled **10/13/2016** Date Received **10/18/2016** Date Reported **1/9/2017**

Nutrient In The Soil		Interpretation (VLow Low Med High)
Nitrate	0-6" 11 lb/ac 6-24" 15 lb/ac 0-24" 26 lb/ac	*****
Phosphorus	Olsen 23 ppm	**********
Potassium	177 ppm	**********
Chloride		
Sulfur	0-6" 6 lb/ac 6-24" 12 lb/ac	****** **********
Boron		
Zinc		
Iron		
Manganese		
Copper		
Magnesium		
Calcium		
Sodium		
Org.Matter	2.5 %	**********
Carbonate(CCE)		
Sol. Salts	0-6" 0.28 mmho/cm 6-24" 0.21 mmho/cm	******* *****

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
Canola-bu			Canola-bu			Wheat-Spring		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
40 BU			50 BU			70 BU		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
Band			Band			Band		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N	114		N	149		N	163	
P_2O_5	10	Band (Starter)*	P_2O_5	10	Band (Starter)*	P_2O_5	15	Band (Starter)*
K_2O	0		K_2O	0		K_2O	11	Band *
Cl			Cl			Cl		
S	22	Band	S	22	Band	S	12	Band
B			B			B		
Zn			Zn			Zn		
Fe			Fe			Fe		
Mn			Mn			Mn		
Cu			Cu			Cu		
Mg			Mg			Mg		
Lime			Lime			Lime		

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" 7.7 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 = 36 K2O = 18 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

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 = 45 K2O = 23 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

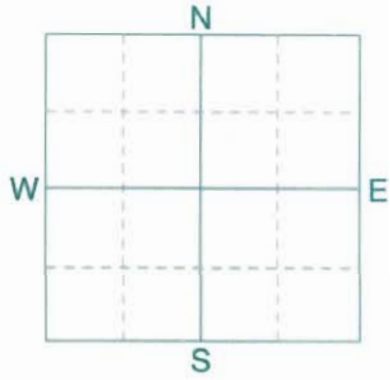
Crop 3: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 44 K2O = 26 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

CO-OP AG TEAM

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

SOIL TEST REPORT

FIELD ID **NE 11-7-9W**
SAMPLE ID **1**
FIELD NAME
COUNTY
TWP **7** RANGE **9**
SECTION **11** QTR **NE** ACRES **135**
PREV. CROP **Wheat-Spring**



SUBMITTED FOR:
LEO COMTE

SUBMITTED BY: **PE0510**
PEMBINA COOP-NOTRE DAME
NORTH AGRO 31-6-8
BOX 465
NOTRE DAME, MB R0G 1M0

REF # **1659259** BOX # **0**
LAB # **NW80458**

Date Sampled **09/20/2016** Date Received **09/23/2016** Date Reported **1/9/2017**

Nutrient In The Soil		Interpretation
		VLow Low Med High
Nitrate	0-6" 15 lb/ac 6-24" 15 lb/ac 0-24" 30 lb/ac	******
Phosphorus	Olsen 19 ppm	**********
Potassium	191 ppm	**********
Chloride		
Sulfur	0-6" 12 lb/ac 6-24" 36 lb/ac	**********
Boron		
Zinc		
Iron		
Manganese		
Copper		
Magnesium		
Calcium		
Sodium		
Org.Matter	2.1 %	********
Carbonate(CCE)		
Sol. Salts	0-6" 0.31 mmho/cm 6-24" 0.29 mmho/cm	*******

1st Crop Choice		
Soybeans		
YIELD GOAL		
40 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	***	
P_2O_5	14	Band *
K_2O	7	Band *
Cl		
S	9	Band (Trial)
B		
Zn		
Fe		
Mn		
Cu		
Mg		
Lime		

2nd Crop Choice		
Soybeans		
YIELD GOAL		
50 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	***	
P_2O_5	18	Band *
K_2O	8	Band *
Cl		
S	9	Band (Trial)
B		
Zn		
Fe		
Mn		
Cu		
Mg		
Lime		

3rd Crop Choice		
Soybeans		
YIELD GOAL		
60 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	***	
P_2O_5	22	Band *
K_2O	10	Band *
Cl		
S	9	Band (Trial)
B		
Zn		
Fe		
Mn		
Cu		
Mg		
Lime		

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" 7.8 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 = 35 K2O = 60 AGVISE Band guidelines will build P & K test levels to the medium range over many years. Soybeans may respond to nitrogen on fields testing less than 60 lb/ac with a limited soybean history.

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 = 44 K2O = 75 AGVISE Band guidelines will build P & K test levels to the medium range over many years. Soybeans may respond to nitrogen on fields testing less than 60 lb/ac with a limited soybean history.

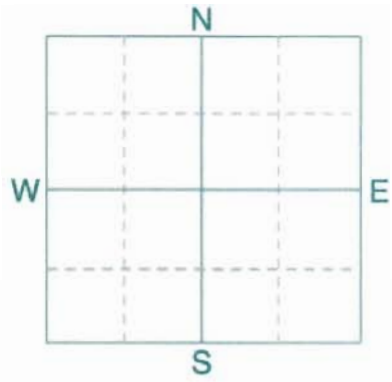
Crop 3: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 53 K2O = 90 AGVISE Band guidelines will build P & K test levels to the medium range over many years. Soybeans may respond to nitrogen on fields testing less than 60 lb/ac with a limited soybean history.

CO-OP AG TEAM

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

SOIL TEST REPORT

FIELD ID **SW 14-7-9W**
SAMPLE ID **6**
FIELD NAME **Andes Collet**
COUNTY
TWP **7** RANGE **9**
SECTION **14** QTR **SE** ACRES **155**
PREV. CROP **Wheat-Spring**



SUBMITTED FOR:
PORCHERIE NOTRE DAME

SUBMITTED BY: **PE0510**
PEMBINA COOP-NOTRE DAME
NORTH AGRO 31-6-8
BOX 465
NOTRE DAME, MB R0G 1M0

REF # **1647462** BOX # **0**
LAB # **NW75188**

Date Sampled **09/15/2016** Date Received **09/20/2016** Date Reported **1/9/2017**

Nutrient In The Soil			Interpretation			
			VLow	Low	Med	High
Nitrate	0-6"	25 lb/ac				
	6-24"	24 lb/ac				
	0-24"	49 lb/ac				
Phosphorus	Olsen	42 ppm				
Potassium		235 ppm				
Chloride						
Sulfur	0-6"	22 lb/ac				
	6-24"	60 lb/ac				
Boron						
Zinc						
Iron						
Manganese						
Copper						
Magnesium						
Calcium						
Sodium						
Org.Matter		3.2 %				
Carbonate(CCE)						
Sol. Salts	0-6"	0.33 mmho/cm				
	6-24"	0.31 mmho/cm				

1st Crop Choice		
Canola-bu		
YIELD GOAL		
40 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	91	
P_2O_5	10	Band (Starter)*
K_2O	0	
Cl		
S	15	Band
B		
Zn		
Fe		
Mn		
Cu		
Mg		
Lime		

2nd Crop Choice		
Canola-bu		
YIELD GOAL		
50 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	126	
P_2O_5	10	Band (Starter)*
K_2O	0	
Cl		
S	15	Band
B		
Zn		
Fe		
Mn		
Cu		
Mg		
Lime		

3rd Crop Choice		
Canola-bu		
YIELD GOAL		
60 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	161	
P_2O_5	10	Band (Starter)*
K_2O	0	
Cl		
S	15	Band
B		
Zn		
Fe		
Mn		
Cu		
Mg		
Lime		

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" 7.5 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 = 36 K2O = 18 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

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 = 45 K2O = 23 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

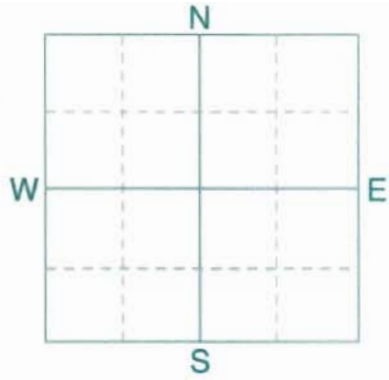
Crop 3: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 54 K2O = 27 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

CO-OP AG TEAM

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

SOIL TEST REPORT

FIELD ID **SE 14-7-9W**
SAMPLE ID **5**
FIELD NAME **Andre Collet**
COUNTY
TWP **7** RANGE **9**
SECTION **14** QTR **SE** ACRES **155**
PREV. CROP **Wheat-Spring**



SUBMITTED FOR:
PORCHERIE NOTRE DAME

SUBMITTED BY: **PE0510**
PEMBINA COOP-NOTRE DAME
NORTH AGRO 31-6-8
BOX 465
NOTRE DAME, MB R0G 1M0

REF # **1647459** BOX # **0**
LAB # **NW75190**

Date Sampled **09/15/2016** Date Received **09/20/2016** Date Reported **1/9/2017**

Nutrient In The Soil			Interpretation (VLow / Low / Med / High)
Nitrate	0-6"	20 lb/ac	
	6-24"	18 lb/ac	
	0-24"	38 lb/ac	
Phosphorus	Olsen	23 ppm	
Potassium		233 ppm	
Chloride			
Sulfur	0-6"	18 lb/ac	
	6-24"	24 lb/ac	
Boron			
Zinc			
Iron			
Manganese			
Copper			
Magnesium			
Calcium			
Sodium			
Org.Matter		2.6 %	
Carbonate(CCE)			
Soil Salts	0-6"	0.32 mmho/cm	
	6-24"	0.3 mmho/cm	

1st Crop Choice		
Canola-bu		
YIELD GOAL		
40 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	102	
P_2O_5	10	Band (Starter)*
K_2O	0	
Cl		
S	17	Band
B		
Zn		
Fe		
Mn		
Cu		
Mg		
Lime		

2nd Crop Choice		
Canola-bu		
YIELD GOAL		
50 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	137	
P_2O_5	10	Band (Starter)*
K_2O	0	
Cl		
S	17	Band
B		
Zn		
Fe		
Mn		
Cu		
Mg		
Lime		

3rd Crop Choice		
Canola-bu		
YIELD GOAL		
60 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	172	
P_2O_5	10	Band (Starter)*
K_2O	0	
Cl		
S	17	Band
B		
Zn		
Fe		
Mn		
Cu		
Mg		
Lime		

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" 7.8 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 = 36 K2O = 18 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

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 = 45 K2O = 23 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

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 = 54 K2O = 27 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

CO-OP AG TEAM

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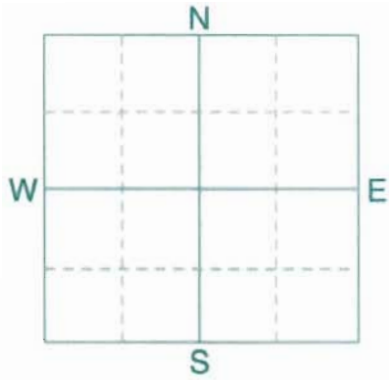
Northwood: (701) 587-6010
Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **NW 14-7-9W**
SAMPLE ID **7**
FIELD NAME **Ray Dacquay**
COUNTY
TWP **7** RANGE **9**
SECTION **14** QTR **NW** ACRES **155**
PREV. CROP **Wheat-Spring**



SUBMITTED FOR:
PORCHERIE NOTRE DAME

SUBMITTED BY: **PE0510**
PEMBINA COOP-NOTRE DAME
NORTH AGRO 31-6-8
BOX 465
NOTRE DAME, MB R0G 1M0

REF # **1647463** BOX # **0**
LAB # **NW75189**

Date Sampled **09/15/2016** Date Received **09/20/2016** Date Reported **1/9/2017**

Nutrient In The Soil		Interpretation (VLow Low Med High)
Nitrate	0-6" 21 lb/ac 6-24" 18 lb/ac 0-24" 39 lb/ac	
Phosphorus	Olsen 18 ppm	
Potassium	244 ppm	
Chloride		
Sulfur	0-6" 10 lb/ac 6-24" 42 lb/ac	
Boron		
Zinc		
Iron		
Manganese		
Copper		
Magnesium		
Calcium		
Sodium		
Org.Matter	2.2 %	
Carbonate(CCE)		
Sol. Salts	0-6" 0.38 mmho/cm 6-24" 0.37 mmho/cm	

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
Canola-bu			Canola-bu			Canola-bu		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
40 BU			50 BU			60 BU		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
Band			Band			Band		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N	101		N	136		N	171	
P_2O_5	14	Band *	P_2O_5	18	Band *	P_2O_5	21	Band *
K_2O	0		K_2O	0		K_2O	0	
Cl			Cl			Cl		
S	19	Band	S	19	Band	S	19	Band
B			B			B		
Zn			Zn			Zn		
Fe			Fe			Fe		
Mn			Mn			Mn		
Cu			Cu			Cu		
Mg			Mg			Mg		
Lime			Lime			Lime		

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" 7.7 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 = 36 K2O = 18 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

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 = 45 K2O = 23 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

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 = 54 K2O = 27 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

CO-OP AG TEAM

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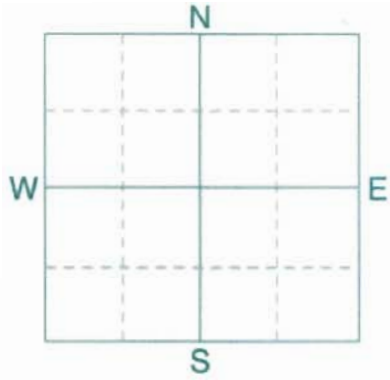
Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **NE 14-7-9W**
SAMPLE ID **4**
FIELD NAME
COUNTY
TWP **7** RANGE **9**
SECTION **14** QTR **NE** ACRES **148**
PREV. CROP **Canola-bu**



SUBMITTED FOR:
PORCHERIE LAC DU ONZE

SUBMITTED BY: **PE0510**
PEMBINA COOP-NOTRE DAME
NORTH AGRO 31-6-8
BOX 465
NOTRE DAME, MB R0G 1M0

REF # **1647467** BOX # **0**
LAB # **NW75192**

Date Sampled **09/15/2016** Date Received **09/20/2016** Date Reported **1/9/2017**

Nutrient In The Soil		Interpretation (VLow Low Med High)
Nitrate	0-6" 15 lb/ac 6-24" 27 lb/ac 0-24" 42 lb/ac	
Phosphorus	Olsen 26 ppm	
Potassium	200 ppm	
Chloride	0-24" 192 lb/ac	
Sulfur	0-6" 18 lb/ac 6-24" 30 lb/ac	
Boron		
Zinc		
Iron		
Manganese		
Copper	1.33 ppm	
Magnesium		
Calcium		
Sodium		
Org.Matter	2.0 %	
Carbonate(CCE)		
Sol. Salts	0-6" 0.31 mmho/cm 6-24" 0.28 mmho/cm	

1st Crop Choice		
Wheat-Spring		
YIELD GOAL		
50 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	93	
P_2O_5	15	Band (Starter)*
K_2O	10	Band (Starter)*
Cl	0	
S	7	Band (Trial)
B		
Zn		
Fe		
Mn		
Cu	0	
Mg		
Lime		

2nd Crop Choice		
Wheat-Spring		
YIELD GOAL		
60 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	120	
P_2O_5	15	Band (Starter)*
K_2O	10	Band (Starter)*
Cl	0	
S	7	Band (Trial)
B		
Zn		
Fe		
Mn		
Cu	0	
Mg		
Lime		

3rd Crop Choice		
Wheat-Spring		
YIELD GOAL		
70 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	147	
P_2O_5	15	Band (Starter)*
K_2O	10	Band (Starter)*
Cl	0	
S	7	Band (Trial)
B		
Zn		
Fe		
Mn		
Cu	0	
Mg		
Lime		

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" 7.5 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 = 31 K2O = 19 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

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 = 38 K2O = 23 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

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 = 44 K2O = 26 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

CO-OP AG TEAM

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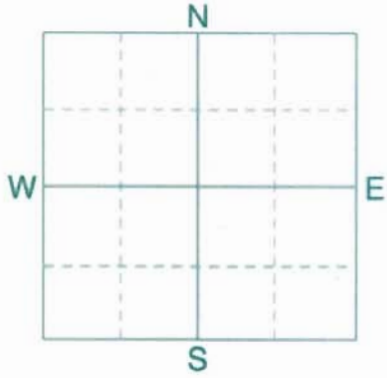
Benson: (320) 843-4109

SOIL TEST REPORT

FIELD ID **SW15-7-9W**
SAMPLE ID **6**
FIELD NAME
COUNTY
TWP **7** RANGE **9**
SECTION **15** QTR **SW** ACRES **150**
PREV. CROP **Canola-bu**



SUBMITTED FOR:
JAMAULT FARMS

SUBMITTED BY: **PE0510**
PEMBINA COOP-NOTRE DAME
NORTH AGRO 31-6-8
BOX 465
NOTRE DAME, MB R0G 1M0

REF # **1793437** BOX # **0**
LAB # **NW171412**

Date Sampled **11/08/2016** Date Received **11/10/2016** Date Reported **1/9/2017**

Nutrient In The Soil			Interpretation (VLow Low Med High)
Nitrate	0-6"	19 lb/ac	
	6-24"	42 lb/ac	
	0-24''	61 lb/ac	
Phosphorus	Olsen	25 ppm	
Potassium		236 ppm	
Chloride	0-24''	36 lb/ac	
Sulfur	0-6"	18 lb/ac	
	6-24"	66 lb/ac	
Boron			
Zinc			
Iron			
Manganese			
Copper		1.22 ppm	
Magnesium			
Calcium			
Sodium			
Org.Matter		3.2 %	
Carbonate(CCE)			
Sol. Salts	0-6"	0.29 mmho/cm	
	6-24"	0.26 mmho/cm	

1st Crop Choice		
Wheat-Spring		
YIELD GOAL		
50 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	74	
P_2O_5	15	Band (Starter)*
K_2O	10	Band (Starter)*
Cl	4	
S	0	
B		
Zn		
Fe		
Mn		
Cu	0	
Mg		
Lime		

2nd Crop Choice		
Wheat-Spring		
YIELD GOAL		
60 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	101	
P_2O_5	15	Band (Starter)*
K_2O	10	Band (Starter)*
Cl	4	
S	0	
B		
Zn		
Fe		
Mn		
Cu	0	
Mg		
Lime		

3rd Crop Choice		
Wheat-Spring		
YIELD GOAL		
70 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	128	
P_2O_5	15	Band (Starter)*
K_2O	10	Band (Starter)*
Cl	4	
S	0	
B		
Zn		
Fe		
Mn		
Cu	0	
Mg		
Lime		

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" 7.6 6-24" 8.2							

Crop 1: 8 lbs of 0-0-60 = 4 lbs of Chloride" * 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 = 31 K2O = 19 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

Crop 2: 8 lbs of 0-0-60 = 4 lbs of Chloride" * 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 = 38 K2O = 23 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

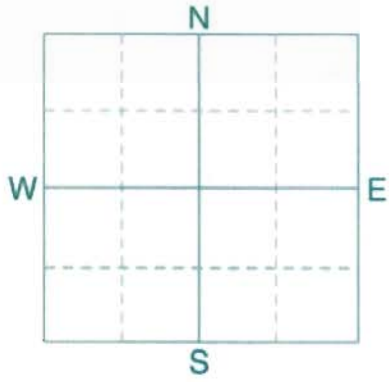
Crop 3: 8 lbs of 0-0-60 = 4 lbs of Chloride" * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 44 K2O = 26 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

CO-OP AG TEAM

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

SOIL TEST REPORT

FIELD ID **NW 15-7-9W**
SAMPLE ID **7**
FIELD NAME
COUNTY
TWP **7** RANGE **9**
SECTION **15** QTR **NW** ACRES **130**
PREV. CROP **Canola-bu**



SUBMITTED FOR:
JAMAULT FARMS

SUBMITTED BY: **PE0510**
PEMBINA COOP-NOTRE DAME
NORTH AGRO 31-6-8
BOX 465
NOTRE DAME, MB R0G 1M0

REF # **1793438** BOX # **0**
LAB # **NW171410**

Date Sampled **11/08/2016** Date Received **11/10/2016** Date Reported **1/9/2017**

Nutrient In The Soil			Interpretation
			VLow Low Med High
Nitrate	0-6"	19 lb/ac	
	6-24"	36 lb/ac	
	0-24"	55 lb/ac	
Phosphorus	Olsen	30 ppm	
Potassium		228 ppm	
Chloride	0-24"	36 lb/ac	
Sulfur	0-6"	24 lb/ac	
	6-24"	48 lb/ac	
Boron			
Zinc			
Iron			
Manganese			
Copper		1.42 ppm	
Magnesium			
Calcium			
Sodium			
Org.Matter		2.9 %	
Carbonate(CCE)			
Sol. Salts	0-6"	0.23 mmho/cm	
	6-24"	0.19 mmho/cm	

1st Crop Choice		
Wheat-Spring		
YIELD GOAL		
50 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	80	
P_2O_5	15	Band (Starter)*
K_2O	10	Band (Starter)*
Cl	4	
S	7	Band (Trial)
B		
Zn		
Fe		
Mn		
Cu	0	
Mg		
Lime		

2nd Crop Choice		
Wheat-Spring		
YIELD GOAL		
60 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	107	
P_2O_5	15	Band (Starter)*
K_2O	10	Band (Starter)*
Cl	4	
S	7	Band (Trial)
B		
Zn		
Fe		
Mn		
Cu	0	
Mg		
Lime		

3rd Crop Choice		
Wheat-Spring		
YIELD GOAL		
70 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	134	
P_2O_5	15	Band (Starter)*
K_2O	10	Band (Starter)*
Cl	4	
S	7	Band (Trial)
B		
Zn		
Fe		
Mn		
Cu	0	
Mg		
Lime		

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" 7.6 6-24" 8.0							

Crop 1: 8 lbs of 0-0-60 = 4 lbs of Chloride" * 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 = 31 K2O = 19 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

Crop 2: 8 lbs of 0-0-60 = 4 lbs of Chloride" * 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 = 38 K2O = 23 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

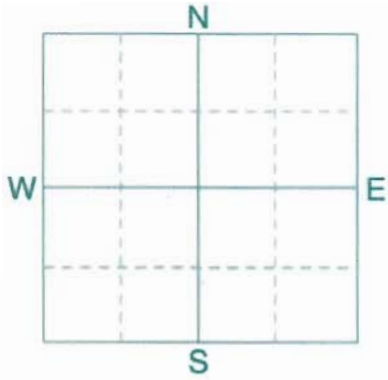
Crop 3: 8 lbs of 0-0-60 = 4 lbs of Chloride" * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 44 K2O = 26 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

CO-OP AG TEAM

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

SOIL TEST REPORT

FIELD ID **NE 15-7-9W**
SAMPLE ID **2**
FIELD NAME
COUNTY
TWP **7** RANGE **9**
SECTION **15** QTR **NE** ACRES **150**
PREV. CROP **Wheat-Spring**



SUBMITTED FOR:
JAMAULT FARMS

SUBMITTED BY: **PE0510**
PEMBINA COOP-NOTRE DAME
NORTH AGRO 31-6-8
BOX 465
NOTRE DAME, MB R0G 1M0

REF # **1790972** BOX # **0**
LAB # **NW167540**

Date Sampled **11/07/2016** Date Received **11/08/2016** Date Reported **1/9/2017**

Nutrient In The Soil			Interpretation
			VLow Low Med High
Nitrate	0-6"	15 lb/ac	
	6-24"	33 lb/ac	
	0-24"	48 lb/ac	
Phosphorus	Olsen	15 ppm	
Potassium		163 ppm	
Chloride			
Sulfur	0-6"	12 lb/ac	
	6-24"	18 lb/ac	
Boron			
Zinc			
Iron			
Manganese			
Copper			
Magnesium			
Calcium			
Sodium			
Org.Matter		2.2 %	
Carbonate(CCE)			
Sol. Salts	0-6"	0.23 mmho/cm	
	6-24"	0.26 mmho/cm	

1st Crop Choice		
Soybeans		
YIELD GOAL		
40 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	***	
P_2O_5	21	Band *
K_2O	13	Band *
Cl		
S	9	Band (Trial)
B		
Zn		
Fe		
Mn		
Cu		
Mg		
Lime		

2nd Crop Choice		
Soybeans		
YIELD GOAL		
50 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	***	
P_2O_5	26	Band *
K_2O	17	Band *
Cl		
S	9	Band (Trial)
B		
Zn		
Fe		
Mn		
Cu		
Mg		
Lime		

3rd Crop Choice		
Soybeans		
YIELD GOAL		
60 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	***	
P_2O_5	31	Band *
K_2O	20	Band *
Cl		
S	9	Band (Trial)
B		
Zn		
Fe		
Mn		
Cu		
Mg		
Lime		

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" **8.1** 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 = 35 K2O = 60 AGVISE Band guidelines will build P & K test levels to the medium range over many years. Soybeans may respond to nitrogen on fields testing less than 60 lb/ac with a limited soybean history.

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 = 44 K2O = 75 AGVISE Band guidelines will build P & K test levels to the medium range over many years. 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 = 53 K2O = 90 AGVISE Band guidelines will build P & K test levels to the medium range over many years. Soybeans may respond to nitrogen on fields testing less than 60 lb/ac with a limited soybean history.

FarmersEdge

Grower:	FERME GRAND RAVIN	Sampler:	HM	Lot Number:	161115_139
Grower Field Name:		Date Sampled:	November 13, 2016	Received Date:	November 15, 2016
FE Field Name:		Total Acres:	~~115~~ 105	Delivery Date:	November 18, 2016
Legal Location:	SW 16-7-9 W1			Client ID:	09-0022

Sample Description						Macronutrients							
						NO3-N			P - Olsen	P-M.Kelowna	K	SO4-S	
Zone	Lab ID Surface	Lab ID Sub Surface	Zone Acres	Sample Depth	Sample Depth	lb/Ac Surf	lb/Ac Sub	Total lb/Ac	ppm	ppm	ppm	lb/Ac Surface	lb/Ac Sub
1	161115_139-01	161115_139-02	15	0-6		6			27		210	8	
2	161115_139-03	161115_139-04	30	0-6	6-12	12	5	17	38		290	12	6
3	161115_139-05	161115_139-06	38	0-6	6-12	8	7	15	50		350	12	10
4	161115_139-07	161115_139-08	22	0-6	6-18	8	8	16	33		250	10	16
5	161115_139-09	161115_139-10	11	[redacted]							530	14	10

Macronutrients				Cation Exchange and Base Saturation						Texture
Zone	Ca ppm	Mg ppm	Na ppm	CEC meq/100g	Base Sat. %	Ca %	Na %	K %	Mg %	Texture
1	4000	440	33	24.1	100.0	82.0	0.6	2.2	15.0	
2	3800	430	30	23.5	100.0	81.0	0.6	3.2	15.0	
3	2600	360	23	17.7	96.0	74.0	0.6	5.0	17.0	
4	2300	290	27	16.1	90.0	71.0	0.7	4.0	15.0	
5	2300	280	20	17.1	90.0	68.0	0.5	7.9	14.0	

Micronutrients								Soil Quality				
						Cl		pH (1:2)		EC (Sat. Paste Equiv.)		OM
Zone	Cu ppm	Fe ppm	Mn ppm	Zn ppm	B ppm	lb/Ac Surface	lb/Ac Sub	Surface	Sub Surface	dS/m Surf	dS/m Sub	%
1	1.1	23.0	5.7	0.9	0.1	<4		7.8		0.42		2.2
2	1.5	39.0	12.0	1.6	0.2	4	3	7.4	7.9	0.42	0.30	2.6
3	1.9	48.0	15.0	3.3	0.4	7	4	6.9	7.9	0.30	0.38	3.4
4	1.5	71.0	23.0	2.5	0.3	4	9	6.6	7.8	0.18	0.38	3.4
5	1.5	92.0	18.0	3.4	0.4	6	3	6.6	7.7	0.26	0.28	4.0

Comments

PREVIOUS CROP:CANOLA

FarmersEdge

Grower:	FERME GRAND RAVIN	Sampler:	HM
Grower Field Name:		Date Sampled:	November 13, 2016
FE Field Name:		Total Acres:	107
Legal Location:	SE 16-7-9 W1		

Lot Number:	161115_138
Received Date:	November 15, 2016
Delivery Date:	November 18, 2016
Client ID:	09-0022

Sample Description						Macronutrients							
Zone	Lab ID Surface	Lab ID Sub Surface	Zone Acres	Sample Depth	Sample Depth	NO3-N			P - Olsen	P-M.Kelowna	K	SO4-S	
						lb/Ac Surf	lb/Ac Sub	Total lb/Ac	ppm	ppm	ppm	lb/Ac Surface	lb/Ac Sub
	161115_138-01	161115_138-02	17	0-6	6-18	6	6	12	46		320	17	11
3	161115_138-03	161115_138-04	21	0-6	6-18	7	4	11	31		270	14	19
4	161115_138-05	161115_138-06	30	0-6	6-18	9	5	14	31		270	12	19
5	161115_138-07	161115_138-08	22	0-6	6-18	6	<4	<10	33		290	13	26
6	161115_138-09	161115_138-10	12	0-6	6-18	9	20	29	31		340	10	14

Macronutrients				Cation Exchange and Base Saturation						Texture
Zone	Ca ppm	Mg ppm	Na ppm	CEC meq/100g	Base Sat. %	Ca %	Na %	K %	Mg %	Texture
	3500	310	22	20.9	100.0	83.0	0.5	3.9	12.0	
3	5500	260	27	30.6	100.0	90.0	0.4	2.2	6.9	
4	5600	220	25	30.7	100.0	91.0	0.4	2.2	6.0	
5	5300	250	24	29.5	100.0	90.0	0.4	2.5	7.1	
6	4000	300	25	23.4	100.0	85.0	0.5	3.7	11.0	

Micronutrients								Soil Quality				
Zone	Cu ppm	Fe ppm	Mn ppm	Zn ppm	B ppm	Cl		pH (1:2)		EC (Sat. Paste Equiv.)		OM %
						lb/Ac Surface	lb/Ac Sub	Surface	Sub Surface	dS/m Surf	dS/m Sub	
	1.6	53.0	12.0	2.7	0.4	7	6	7.0	8.2	0.32	0.30	4.3
3	1.2	40.0	9.0	2.5	0.4	7	10	7.4	8.3	0.52	0.32	4.3
4	1.5	47.0	8.1	2.9	0.5	8	11	7.3	8.1	0.48	0.35	5.3
5	1.4	43.0	7.9	2.5	0.3	6	12	7.2	8.0	0.54	0.47	4.5
6	1.4	48.0	8.0	2.7	0.3	4	6	7.1	8.3	0.43	0.33	4.7

Comments

PREVIOUS CROP:CANOLA

FarmersEdge

Grower:	FERME GRAND RAVIN	Sampler:	HM
Grower Field Name:		Date Sampled:	November 13, 2016
FE Field Name:		Total Acres:	213
Legal Location:	N 16-7-9 W1		

Lot Number:	161115_132
Received Date:	November 15, 2016
Delivery Date:	November 17, 2016
Client ID:	09-0022

Sample Description						Macronutrients							
Zone	Lab ID Surface	Lab ID Sub Surface	Zone Acres	Sample Depth	Sample Depth	NO3-N			P - Olsen	P-M.Kelowna	K	SO4-S	
						lb/Ac Surf	lb/Ac Sub	Total lb/Ac	ppm	ppm	ppm	lb/Ac Surface	lb/Ac Sub
	161115_132-01	161115_132-02	17	0-6	6-16	10	19	29	32		280	8	12
3	161115_132-03	161115_132-04	25	0-6	6-16	7	4	11	18		270	7	7
4	161115_132-05	161115_132-06	35	0-6	6-16	12	14	26	39		420	14	11
5	161115_132-07	161115_132-08	41	0-6	6-16	7	4	11	40		380	14	11
6	161115_132-09	161115_132-10	42	0-6	6-16	11	9	20	44		460	13	15
	161115_132-11	161115_132-12	45	0-6	6-16	8	7	15	44		440	16	14

Macronutrients				Cation Exchange and Base Saturation						Texture
Zone	Ca ppm	Mg ppm	Na ppm	CEC meq/100g	Base Sat. %	Ca %	Na %	K %	Mg %	Texture
	4400	310	22	25.3	100.0	87.0	0.4	2.8	10.0	
3	4700	380	27	27.4	100.0	86.0	0.4	2.5	11.0	
4	4400	470	32	27.2	100.0	81.0	0.5	4.0	14.0	
5	3600	460	29	22.7	100.0	79.0	0.6	4.3	17.0	
6	2400	360	26	16.7	97.0	72.0	0.7	7.0	18.0	
	2200	330	21	16.3	91.0	67.0	0.6	6.9	17.0	

Micronutrients								Soil Quality				
Zone	Cu ppm	Fe ppm	Mn ppm	Zn ppm	B ppm	Cl		pH (1:2)		EC (Sat. Paste Equiv.)		OM %
						lb/Ac Surface	lb/Ac Sub	Surface	Sub Surface	dS/m Surf	dS/m Sub	
	1.4	49.0	16.0	1.8	0.3	4	8	7.3	8.1	0.61	0.35	2.6
3	1.4	17.0	3.7	1.4	0.1	5	6	8.1	8.4	0.35	0.28	2.4
4	1.6	40.0	14.0	2.1	0.2	6	8	7.3	8.0	0.49	0.35	3.1
5	1.8	41.0	8.5	2.6	0.3	6	9	7.4	8.2	0.43	0.41	3.2
6	2.1	43.0	15.0	3.6	0.3	8	6	6.9	8.2	0.33	0.34	3.5
	1.8	55.0	21.0	2.9	0.4	6	11	6.6	8.0	0.24	0.33	3.4

Comments

PREVIOUS CROP:CANOLA

FarmersEdge

Grower:	FERME GRAND RAVIN	Sampler:	HM	Lot Number:	161115_131
Grower Field Name:		Date Sampled:	November 13, 2016	Received Date:	November 15, 2016
FE Field Name:		Total Acres:	187	Delivery Date:	November 17, 2016
Legal Location:	S 21-7-9 W1			Client ID:	09-0022

Sample Description						Macronutrients							
Zone	Lab ID Surface	Lab ID Sub Surface	Zone Acres	Sample Depth	Sample Depth	NO3-N			P - Olsen	P-M.Kelowna	K	SO4-S	
						lb/Ac Surf	lb/Ac Sub	Total lb/Ac	ppm	ppm	ppm	lb/Ac Surface	lb/Ac Sub
2	161115_131-01	161115_131-02	10	0-6	6-12	10	7	17	18		240	12	11
3	161115_131-03	161115_131-04	23	0-6	6-12	8	5	13	17		260	12	8
4	161115_131-05	161115_131-06	57	0-6	6-16	7	9	16	19		240	12	14
5	161115_131-07	161115_131-08	57	0-6	6-18	6	9	15	24		250	12	19
6	161115_131-09	161115_131-10	25	0-6	6-20	6	32	38	39		410	12	20
7	161115_131-11	161115_131-12	12	0-6	6-16	6	<3	<9	32		380	12	16

Macronutrients				Cation Exchange and Base Saturation						Texture
Zone	Ca ppm	Mg ppm	Na ppm	CEC meq/100g	Base Sat. %	Ca %	Na %	K %	Mg %	Texture
2	4800	500	21	28.5	100.0	83.0	0.3	2.2	14.0	
3	4800	460	24	28.3	100.0	84.0	0.4	2.5	13.0	
4	4600	410	22	26.9	100.0	85.0	0.4	2.3	13.0	
5	2600	440	20	17.6	100.0	75.0	0.5	3.7	21.0	
6	2600	450	29	17.8	100.0	73.0	0.7	5.9	21.0	
7	2900	440	21	19.4	100.0	76.0	0.5	5.1	19.0	

Micronutrients								Soil Quality				
Zone	Cu ppm	Fe ppm	Mn ppm	Zn ppm	B ppm	Cl		pH (1:2)		EC (Sat. Paste Equiv.)		OM %
						lb/Ac Surface	lb/Ac Sub	Surface	Sub Surface	dS/m Surf	dS/m Sub	
2	1.0	18.0	7.5	1.0	0.1	13	17	8.4	8.3	0.26	0.27	2.8
3	1.3	29.0	9.1	0.9	0.2	8	7	7.8	8.2	0.37	0.26	2.7
4	1.4	49.0	16.0	1.3	0.3	9	16	7.3	8.4	0.52	0.27	3.3
5	1.5	33.0	12.0	2.0	0.2	9	13	7.7	8.5	0.23	0.25	3.3
6	1.4	47.0	37.0	1.8	0.3	7	27	7.2	8.1	0.18	0.37	3.5
7	1.5	30.0	8.2	2.4	0.3	4	15	7.6	8.3	0.27	0.34	3.6

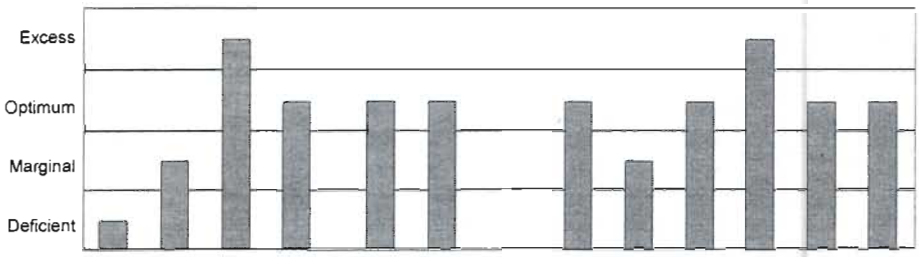
Comments

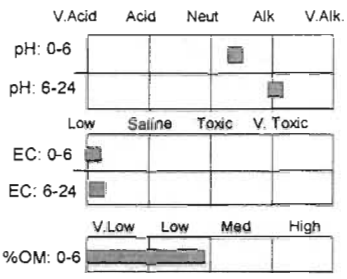
PREVIOUS CROP:CANOLA

Farmers Edge Laboratories
1357 Dugald Road
Winnipeg, Manitoba Canada
R2J 0H3
Phone: 1 204 233 4099

Report To:	Farmers Edge - Pembina South Box 326 Pilot Mound, Manitoba R0G 1P0	**Grower:**	FERME GRAND RAVIN	**Lot Number:**	161115_118
		Grower Field Name:		**Date Sampled:**	2016/11/12
		Reference Field Name:		**Received Date:**	2016/11/15
		Legal Location:	N 21-7-9 W1	**Date Reported:**	2016/11/17
Attention:	Kory Van Damme	**Total Acres:**	165		
Client ID:	09-0022	**Sampler:**	BM		

Sample ID	Depth	N ppm	P* ppm	K ppm	S ppm	Ca ppm	Mg ppm	Na ppm	B ppm	Cu ppm	Fe ppm	Mn ppm	Zn ppm	Cl ppm	pH	EC dS/m	OM %
161115_118-01	0-6	8	25.0	320	6	2900	380	26	0.3	1.0	45.0	18.0	1.8	3.2	7.4	0.19	3.8
161115_118-02	6-24	4			6									2.8	8.1	0.33	





	N	P	K	S
0-6 lb/Ac:	15	50	640	11
6-24 lb/Ac:	26			34
Total lb/Ac measured:	41	50	640	45
Estimated lb/Ac to 24 inch:	41			45

CEC (meq/100g):	18.6	Ca Base Sat. (%):	78.0	Mg Base Sat. (%):	17.0
Base Saturation (%):	100.0	K Base Sat. (%):	4.4	Na Base Sat (%):	0.6

Sand (%): Silt (%): Clay (%): Texture:

Lab Comments:

' Bicarbonate-Extractable (Olsen) Phosphate

Fertility Recommendation

Previous Crop: Canola, Hybrid ☐ Straw Removed ☑ Continuous Cropping ☐ Irrigated

Yield Type	Rain Required (Inch)	Yield	% Yield Reduction	N	P2O5	K2O	S	B	Cu	Fe	Mn	Zn	Cl
Soybeans													
Calculated Yield	10.2 (Wet)	50 bu	0	0	20	0	0	2		0	0	0	0
Calculated Yield	7.9 (Average)	36 bu	0	0	15	0	0	2		0	0	0	0
Calculated Yield	4.5 (Dry)	20 bu	0	0	15	0	0	0		0	0	0	0
Wheat, CWRS													
Calculated Yield	10.2 (Wet)	62 bu	0	115	20	15	0	0	0	0	0	0	0
Calculated Yield	7.9 (Average)	46 bu	0	95	15	0	0	0	0	0	0	0	0
Calculated Yield	4.5 (Dry)	27 bu	0	25	15	0	0	0	0	0	0	0	0

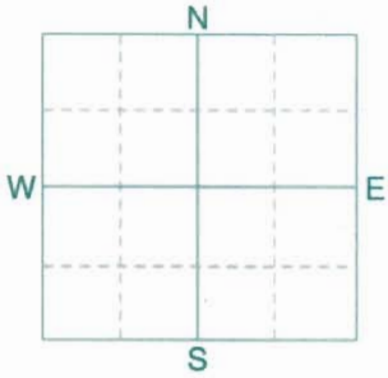
Fertility recommendations are based on spring banding of N, S and seed placement of P, K. Consider total seed row fertilizer with regard to seedling damage.
Nitrogen application rates for legumes assume that appropriate inoculation of seeds was undertaken.
High nitrogen rates may be more effective as split application.
The recommendations for Boron are for broadcast and incorporated application. Seed placement of boron is not recommended due to boron toxicity. Foliar application may be more effective.
The rate of Phosphorus application is based on seed-placement. Broadcasting and incorporation requirement on the average is 2.5 times that of seed-placement.
Rates of Potassium less than 30 lbs/acre are for seed-placement. Broadcast and incorporate 60-80 lbs/acre of K2O as a substitute for 15-20 lbs/acre of K2O seed-placed potassium.

CO-OP AG TEAM

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

SOIL TEST REPORT

FIELD ID **SW 22-7-9W**
SAMPLE ID **7**
FIELD NAME
COUNTY
TWP **7** RANGE
SECTION **22** QTR **SW** ACRES **110**
PREV. CROP **Wheat-Spring**



SUBMITTED FOR:
PORCHERIE LAC DU ONZE

SUBMITTED BY: **PE0510**
PEMBINA COOP-NOTRE DAME
NORTH AGRO 31-6-8
BOX 465
NOTRE DAME, MB **R0G 1M0**

REF # **1680414** BOX # **0**
LAB # **NW91359**

Date Sampled **09/27/2016** Date Received **09/30/2016** Date Reported **1/9/2017**

Nutrient In The Soil			Interpretation (VLow Low Med High)
Nitrate	0-6"	9 lb/ac	
	6-24"	9 lb/ac	
	0-24"	18 lb/ac	
Phosphorus	Olsen	14 ppm	
Potassium		179 ppm	
Chloride			
Sulfur	0-6"	120 +lb/ac	
	6-24"	360 +lb/ac	
Boron			
Zinc			
Iron			
Manganese			
Copper			
Magnesium			
Calcium			
Sodium			
Org.Matter			
Carbonate(CCE)			
Soil Salts	0-6"	0.66 mmho/cm	
	6-24"	0.75 mmho/cm	

1st Crop Choice		
Canola-bu		
YIELD GOAL		
40 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	122	
P_2O_5	22	Band *
K_2O	0	
Cl		
S	10	Band
B		
Zn		
Fe		
Mn		
Cu		
Mg		
Lime		

2nd Crop Choice		
Canola-bu		
YIELD GOAL		
50 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	157	
P_2O_5	28	Band *
K_2O	0	
Cl		
S	10	Band
B		
Zn		
Fe		
Mn		
Cu		
Mg		
Lime		

3rd Crop Choice		
Canola-bu		
YIELD GOAL		
60 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	192	
P_2O_5	33	Band *
K_2O	0	
Cl		
S	10	Band
B		
Zn		
Fe		
Mn		
Cu		
Mg		
Lime		

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" 7.9 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 = 36 K2O = 18 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

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 = 45 K2O = 23 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

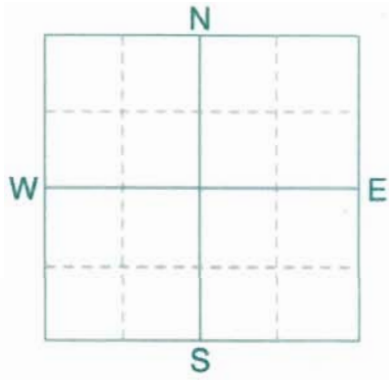
Crop 3: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 54 K2O = 27 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

CO-OP AG TEAM

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

SOIL TEST REPORT

FIELD ID **SW 23-7-9W**
SAMPLE ID **8**
FIELD NAME **Ray Dacquay**
COUNTY
TWP **7** RANGE **9**
SECTION **23** QTR **SW** ACRES **100**
PREV. CROP **Flax**



SUBMITTED FOR:
PORCHERIE NOTRE DAME

SUBMITTED BY: **PE0510**
PEMBINA COOP-NOTRE DAME
NORTH AGRO 31-6-8
BOX 465
NOTRE DAME, MB **R0G 1M0**

REF # **1647464** BOX # **0**
LAB # **NW75187**

Date Sampled **09/15/2016** Date Received **09/20/2016** Date Reported **1/9/2017**

Nutrient In The Soil			Interpretation			
			VLow	Low	Med	High
Nitrate	0-6"	15 lb/ac				
	6-24"	12 lb/ac				
	0-24"	27 lb/ac				
Phosphorus	Olsen	23 ppm				
Potassium		278 ppm				
Chloride	0-24"	24 lb/ac				
Sulfur	0-6"	10 lb/ac				
	6-24"	30 lb/ac				
Boron						
Zinc						
Iron						
Manganese						
Copper		1.33 ppm				
Magnesium						
Calcium						
Sodium						
Org.Matter		2.2 %				
Carbonate(CCE)						
Soil Salts	0-6"	0.24 mmho/cm				
	6-24"	0.29 mmho/cm				

1st Crop Choice		
Wheat-Spring		
YIELD GOAL		
50 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	108	
P_2O_5	15	Band (Starter)*
K_2O	10	Band (Starter)*
Cl	16	Broadcast
S	9	Band (Trial)
B		
Zn		
Fe		
Mn		
Cu	0	
Mg		
Lime		

2nd Crop Choice		
Wheat-Spring		
YIELD GOAL		
60 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	135	
P_2O_5	15	Band (Starter)*
K_2O	10	Band (Starter)*
Cl	16	Broadcast
S	9	Band (Trial)
B		
Zn		
Fe		
Mn		
Cu	0	
Mg		
Lime		

3rd Crop Choice		
Wheat-Spring		
YIELD GOAL		
70 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	162	
P_2O_5	15	Band (Starter)*
K_2O	10	Band (Starter)*
Cl	16	Broadcast
S	9	Band (Trial)
B		
Zn		
Fe		
Mn		
Cu	0	
Mg		
Lime		

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" 7.0 6-24" 8.0							

Crop 1: 35 lbs of 0-0-60 = 16 lbs of Chloride" * 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 = 31 K2O = 19 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

Crop 2: 35 lbs of 0-0-60 = 16 lbs of Chloride" * 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 = 38 K2O = 23 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

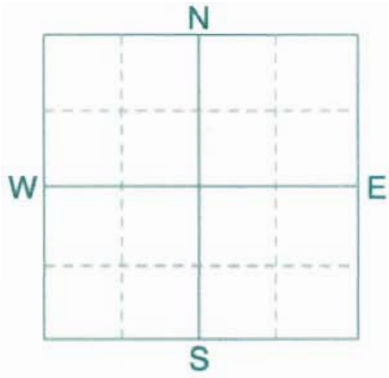
Crop 3: 35 lbs of 0-0-60 = 16 lbs of Chloride" * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 44 K2O = 26 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

CO-OP AG TEAM

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

SOIL TEST REPORT

FIELD ID **NW 24-7-9**
SAMPLE ID **8**
FIELD NAME
COUNTY
TWP **7** RANGE **9**
SECTION **24** QTR **NW** ACRES **145**
PREV. CROP **Wheat-Spring**



SUBMITTED FOR:
JAMAULT FARMS

SUBMITTED BY: **PE0510**
PEMBINA COOP-NOTRE DAME
NORTH AGRO 31-6-8
BOX 465
NOTRE DAME, MB **R0G 1M0**

REF # **1793439** BOX # **0**
LAB # **NW171407**

Date Sampled **11/08/2016** Date Received **11/10/2016** Date Reported **1/9/2017**

Nutrient In The Soil			Interpretation (VLow Low Med High)
Nitrate	0-6"	18 lb/ac	
	6-24"	27 lb/ac	
	0-24"	45 lb/ac	
Phosphorus	Olsen	10 ppm	
Potassium		249 ppm	
Chloride			
Sulfur	0-6"	12 lb/ac	
	6-24"	24 lb/ac	
Boron			
Zinc			
Iron			
Manganese			
Copper			
Magnesium			
Calcium			
Sodium			
Org.Matter		3.4 %	
Carbonate(CCE)			
Soi. Salts	0-6"	0.39 mmho/cm	
	6-24"	0.37 mmho/cm	

1st Crop Choice		
Canola-bu		
YIELD GOAL		
40 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	95	
P_2O_5	30	Band *
K_2O	0	
Cl		
S	17	Band
B		
Zn		
Fe		
Mn		
Cu		
Mg		
Lime		

2nd Crop Choice		
Canola-bu		
YIELD GOAL		
50 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	130	
P_2O_5	38	Band *
K_2O	0	
Cl		
S	17	Band
B		
Zn		
Fe		
Mn		
Cu		
Mg		
Lime		

3rd Crop Choice		
Canola-bu		
YIELD GOAL		
60 BU		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	165	
P_2O_5	45	Band *
K_2O	0	
Cl		
S	17	Band
B		
Zn		
Fe		
Mn		
Cu		
Mg		
Lime		

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" 7.9 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 = 36 K2O = 18 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

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 = 45 K2O = 23 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

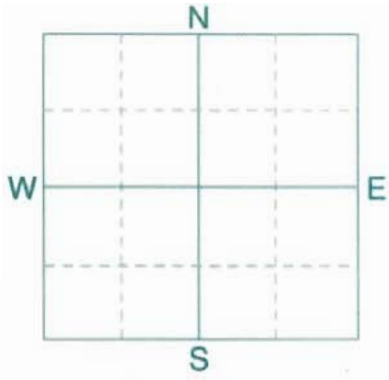
Crop 3: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 54 K2O = 27 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

CO-OP AG TEAM

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

SOIL TEST REPORT

FIELD ID **WH 27-7-9w**
SAMPLE ID **1**
FIELD NAME **Rheault**
COUNTY
TWP **7** RANGE **9**
SECTION **27** QTR **wH** ACRES **128**
PREV. CROP **Wheat-Spring**



SUBMITTED FOR:
PORCHERIE LAC DU ONZE

SUBMITTED BY: **PE0510**
PEMBINA COOP-NOTRE DAME
NORTH AGRO 31-6-8
BOX 465
NOTRE DAME, MB R0G 1M0

REF # **1608589** BOX # **0**
LAB # **NW56150**

Date Sampled **08/24/2016** Date Received **08/28/2016** Date Reported **1/9/2017**

Nutrient In The Soil			Interpretation (VLow / Low / Med / High)
Nitrate	0-6"	20 lb/ac	
	6-24"	27 lb/ac	
	0-24"	47 lb/ac	
Phosphorus	Olsen	22 ppm	
Potassium		188 ppm	
Chloride			
Sulfur	0-6"	14 lb/ac	
	6-24"	30 lb/ac	
Boron			
Zinc			
Iron			
Manganese			
Copper			
Magnesium			
Calcium			
Sodium			
Org.Matter		3.1 %	
Carbonate(CCE)			
Sol. Salts	0-6"	0.39 mmho/cm	
	6-24"	0.31 mmho/cm	

1st Crop Choice			2nd Crop Choice			3rd Crop Choice		
Canola-bu			Canola-bu			Canola-bu		
YIELD GOAL			YIELD GOAL			YIELD GOAL		
40 BU			50 BU			60 BU		
SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELINES		
Band			Band			Band		
LB/ACRE		APPLICATION	LB/ACRE		APPLICATION	LB/ACRE		APPLICATION
N	93		N	128		N	163	
P_2O_5	10	Band (Starter)*	P_2O_5	10	Band (Starter)*	P_2O_5	10	Band (Starter)*
K_2O	0		K_2O	0		K_2O	0	
Cl			Cl			Cl		
S	17	Band	S	17	Band	S	17	Band
B			B			B		
Zn			Zn			Zn		
Fe			Fe			Fe		
Mn			Mn			Mn		
Cu			Cu			Cu		
Mg			Mg			Mg		
Lime			Lime			Lime		

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" 7.8 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 = 36 K2O = 18 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

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 = 45 K2O = 23 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

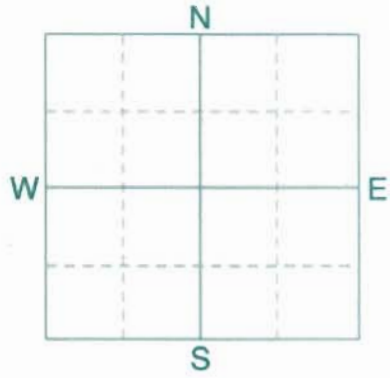
Crop 3: * Caution: Seed Placed Fertilizer Can Cause Injury * Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 54 K2O = 27 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

CO-OP AG TEAM

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

SOIL TEST REPORT

FIELD ID **WH 27-7-9w**
SAMPLE ID **2**
FIELD NAME
COUNTY
TWP **7** RANGE
SECTION **27** QTR **WH** ACRES **80**
PREV. CROP **Alfalfa**



SUBMITTED FOR:
PORCHERIE LAC DU ONZE

SUBMITTED BY: **PE0510**
PEMBINA COOP-NOTRE DAME
NORTH AGRO 31-6-8
BOX 465
NOTRE DAME, MB R0G 1M0

REF # **1608781** BOX # **0**
LAB # **NW56149**

Date Sampled **08/24/2016** Date Received **08/28/2016** Date Reported **1/9/2017**

Nutrient In The Soil			Interpretation (VLow Low Med High)
Nitrate	0-6"	20 lb/ac	
	6-24"	9 lb/ac	
	0-24"	29 lb/ac	
Phosphorus	Olsen	20 ppm	
Potassium		210 ppm	
Chloride			
Sulfur	0-6"	10 lb/ac	
	6-24"	24 lb/ac	
Boron		0.9 ppm	
Zinc		4.22 ppm	
Iron			
Manganese			
Copper			
Magnesium			
Calcium			
Sodium			
Org.Matter		4.5 %	
Carbonate(CCE)			
Sol. Salts	0-6"	0.31 mmho/cm	
	6-24"	0.28 mmho/cm	

1st Crop Choice		
Alfalfa		
YIELD GOAL		
3 Tons		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	0	
P_2O_5	15	Band (Starter)*
K_2O	31	Band *
Cl		
S	7	Band (Trial)
B	1	Broadcast
Zn	0	
Fe		
Mn		
Cu		
Mg		
Lime		

2nd Crop Choice		
Alfalfa		
YIELD GOAL		
4 Tons		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	0	
P_2O_5	15	Band (Starter)*
K_2O	41	Band *
Cl		
S	7	Band (Trial)
B	1	Broadcast
Zn	0	
Fe		
Mn		
Cu		
Mg		
Lime		

3rd Crop Choice		
Alfalfa		
YIELD GOAL		
5 Tons		
SUGGESTED GUIDELINES		
Band		
LB/ACRE		APPLICATION
N	0	
P_2O_5	15	Band (Starter)*
K_2O	52	Band *
Cl		
S	7	Band (Trial)
B	1	Broadcast
Zn	0	
Fe		
Mn		
Cu		
Mg		
Lime		

Soil pH	Buffer pH	Cation Exchange Capacity	% Base Saturation (Typical Range)				
			% Ca	% Mg	% K	% Na	% H
0-6" 7.8 6-24" 8.2							

Crop 1: * Caution: Seed Placed Fertilizer Can Cause Injury * Nitrogen is credited 25 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 = 30 K2O = 150 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

Crop 2: * Caution: Seed Placed Fertilizer Can Cause Injury * Nitrogen is credited 25 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 = 40 K2O = 200 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

Crop 3: * Caution: Seed Placed Fertilizer Can Cause Injury * Nitrogen is credited 25 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 = 250 AGVISE Band guidelines will build P & K test levels to the medium range over many years.

FarmersEdge

Grower:	DACQUAY	Sampler:	HM	Lot Number:	161116_140
Grower Field Name:		Date Sampled:	November 10, 2016	Received Date:	November 16, 2016
FE Field Name:		Total Acres:	113	Delivery Date:	November 18, 2016
Legal Location:	SW 28-7-9 W1			Client ID:	09-0022

Sample Description						Macronutrients							
Zone	Lab ID Surface	Lab ID Sub Surface	Zone Acres	Sample Depth	Sample Depth	NO3-N lb/Ac Surf	NO3-N lb/Ac Sub	NO3-N Total lb/Ac	P - Olsen ppm	P-M.Kelowna ppm	K ppm	SO4-S lb/Ac Surface	SO4-S lb/Ac Sub
2	161116_140-01	161116_140-02	15	0-6	6-16	10	26	36	18		320	6	17
3	161116_140-03	161116_140-04	35	0-6	6-20	15	24	39	17		270	9	21
4	161116_140-05	161116_140-06	21	0-6	6-16	15	27	42	34		350	9	12
5	161116_140-07	161116_140-08	26	0-6	6-12	18	14	32	20		260	8	12
6	161116_140-09	161116_140-10	11	0-6	6-14	26	27	53	32		450	11	12

Macronutrients				Cation Exchange and Base Saturation						Texture
Zone	Ca ppm	Mg ppm	Na ppm	CEC meq/100g	Base Sat. %	Ca %	Na %	K %	Mg %	Texture
2	4800	470	22	28.9	100.0	83.0	0.3	2.8	14.0	
3	4600	510	24	28.0	100.0	82.0	0.4	2.5	15.0	
4	4100	410	20	25.3	98.0	80.0	0.4	3.5	13.0	
5	3100	490	29	20.4	100.0	75.0	0.6	4.6	20.0	
6	2600	400	32	17.7	100.0	74.0	0.8	6.6	19.0	

Micronutrients							Soil Quality				
Zone	Cu ppm	Fe ppm	Mn ppm	Zn ppm	B ppm	Cl lb/Ac Surface	Cl lb/Ac Sub	pH (1:2) Surface	pH (1:2) Sub Surface	EC (Sat. Paste Equiv.) dS/m Surf	EC (Sat. Paste Equiv.) dS/m Sub	OM %
2	1.1	16.0	2.7	1.3	0.2	13	24	7.7	8.2	0.36	0.36	3.0
3	1.3	38.0	7.3	1.5	0.3	15	43	7.4	8.5	0.51	0.36	3.8
4	1.2	56.0	21.0	1.6	0.2	16	20	6.9	8.2	0.67	0.34	3.3
5	1.1	38.0	15.0	1.6	0.2	14	13	7.0	8.3	0.29	0.33	3.5
6	1.0	45.0	36.0	2.3	0.2	16	22	7.1	7.6	0.24	0.35	3.9

Comments

PREVIOUS CROP:CEREAL

Manitoba

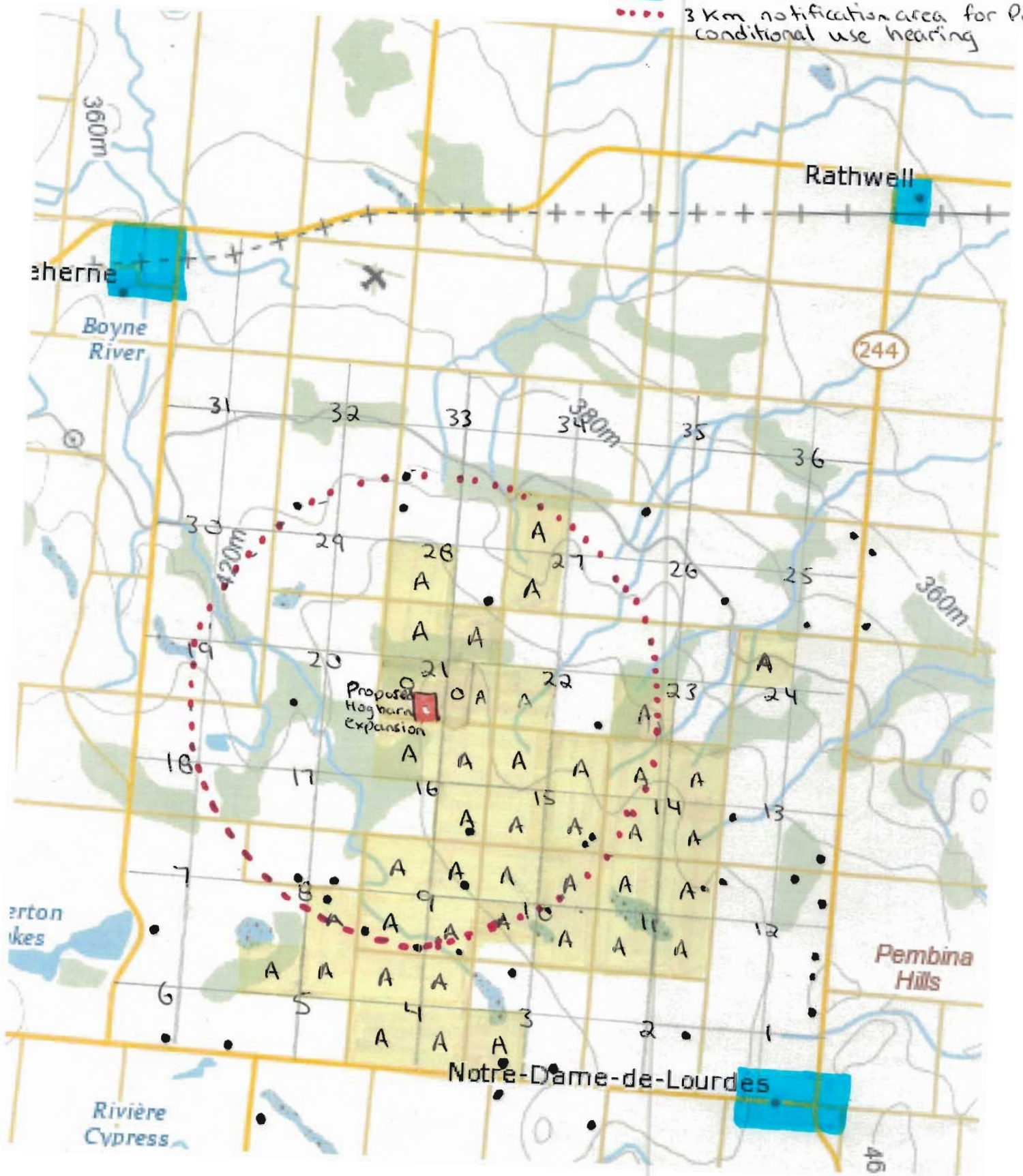
CROP ROTATION TABLE

A	B	C	D	E
Expected Crops in the Rotation	**Acreage**	**Historical Yield**	**Units**	**Source of Yield Information**
Red Spring Wheat	2199	52.8	bu/ac	MASC database
Canola	2199	38	bu/ac	MASC database
Winter Wheat	457	59	bu/ac	MASC database
Total Net Acreage for Manure Application				

A. List all of the crop(s) to be grown in the rotation on the acreage that will receive manure.
B. Indicate the average acreage for each crop over the rotation. For example, if there are 720 suitable acres available for manure and approximately 40 these acres will be used to grow canola, enter 288. The total of column B should add up to Total Net Acreage for Manure Application provided in the Manure Application Field Characteristic Table.
C. Enter the historical yield average for each crop. Long-term yield averages can be determined using MASC data (http://www.masc.mb.ca/masc.nsf/index.html?OpenPage) or on-farm yield records. If on-farm yield records are used, please provide copies.
D. Enter the units for the yields provided (e.g. bu/acre, tons/acre).
E. Enter the source of the historical yield average provided.

Porcherie Notre Dame
SW 21-7-9
RM of Norfolk - Treherne

Legend:
- • Dwelling unit
- O Spread fields - owned
- A Spread fields - agreement
- Rural settlement centre
- 3 Km notification area for Public conditional use hearing



Pig/Operation Type	Storage Type	Volatilization	Animal Numbers (Places)	Weight In (lb)
Gestating Sow	Liquid Uncovered Earthen	30%		447
Nursing Sow	Liquid Uncovered Earthen	30%		539
Nursing Litter	Liquid Uncovered Earthen	30%		3.1
Live Cull Sow	Liquid Uncovered Earthen	30%		630
Bred Gilt	Liquid Uncovered Earthen	30%		340
Gilts (Purchased)	Liquid Uncovered Earthen	30%		290
Boars (Purchased)	Liquid Uncovered Earthen	30%		270
Weanlings	Liquid Uncovered Earthen	30%		13.6
Growers/Finishers	Liquid Uncovered Earthen	30%	13000	61.6
Sows, farrow to 6.2 kg	Liquid Uncovered Earthen	30%		n/a
Sows, farrow to 28 kg	Liquid Uncovered Earthen	30%		n/a
Sows, farrow to finish	Liquid Uncovered Earthen	30%		n/a

Last Revised April 13, 2016

Weight Out (lb)	Average Animal Wt (lb)	Days on Feed per Cycle (days)	Number of Cycles for the Place per Year (days)	Feed Consumed Per Pig Per Day (kg/day)	Protein %	N Excreted Per Herd Adjusted for Storage N (lb/yr/herd)	Phosphorus Content of Feed (DM) %	P2O5 Excreted Per Herd Per Year (lb/yr/herd)
630	539	121	3	2.3	14%	0	0.53%	0
539	539	21	15.2	6.5	20%	0	0.63%	0
13.6	8	21	15.2	0	n/a	0	n/a	0
630	630	14	26.1	2.3	14%	0	0.46%	0
447	394	121	3	2.3	14%	0	0.53%	0
340	315	28	13.0	3.2	16%	0	0.46%	0
660	465	365	1	2.5	14%	0	0.46%	0
61.6	38	52	6.9	0.7	20%	0	0.64%	0
280	171	112	3	2.8	16%	336822	0.46%	166412
n/a	n/a	365	1	n/a	n/a	0	n/a	0
n/a	n/a	365	1	n/a	n/a	0	n/a	0
n/a	n/a	365	1	n/a	n/a	0	n/a	0

Crop	Removal P2O5	Removal N	Uptake N	Units	Yield	Units	Acreage	Rem P2O5 (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	38	bu/ac	2199	86904
Corn Grain	0.44	0.97	1.53	lb/bu		bu/ac		-
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		bu/ac		-
Sunflower	1.1	2.8		lb/cwt		cwt/ac		-
Wheat - Spring	0.59	1.5	2.11	lb/bu	52.8	bu/ac	2199	68503
Wheat - Winter	0.51	1.04	1.35	lb/bu	59	bu/ac	457	13751
						Sub Total	4855	169159
						Estimated Average Removal/Uptake (lb/ac)		34.8
						Additional Acres		
						Crop Planned on Additional Acres		
						Total Acreage	4855	

Note: Additional acres include acres for which crop removal or soil data is limited or unavailable.

Last revised August 20, 2014

oval	Uptake
N	N
(lb)	(lb)
-	-
-	-
-	-
161275	266563
-	-
-	-
-	-
-	-
-	-
-	-
-	-
-	-
-	-
-	-
-	-
-	-
-	-
174161	244986
28042	36400
363477	547949
74.9	112.9

Nutrients Excreted	lbs
Nitrogen	336822
P2O5	166412
Crop Nutrient Use	**lb/ac**
Nitrogen Uptake	112.9
P2O5 Removal	34.8
Land Base Requirements	**acres**
Acres for Nitrogen Uptake	**2984**
Acres for 2 x P2O5 Removal	**2388**
Acres for 1 x P2O5 Removal	**4776**

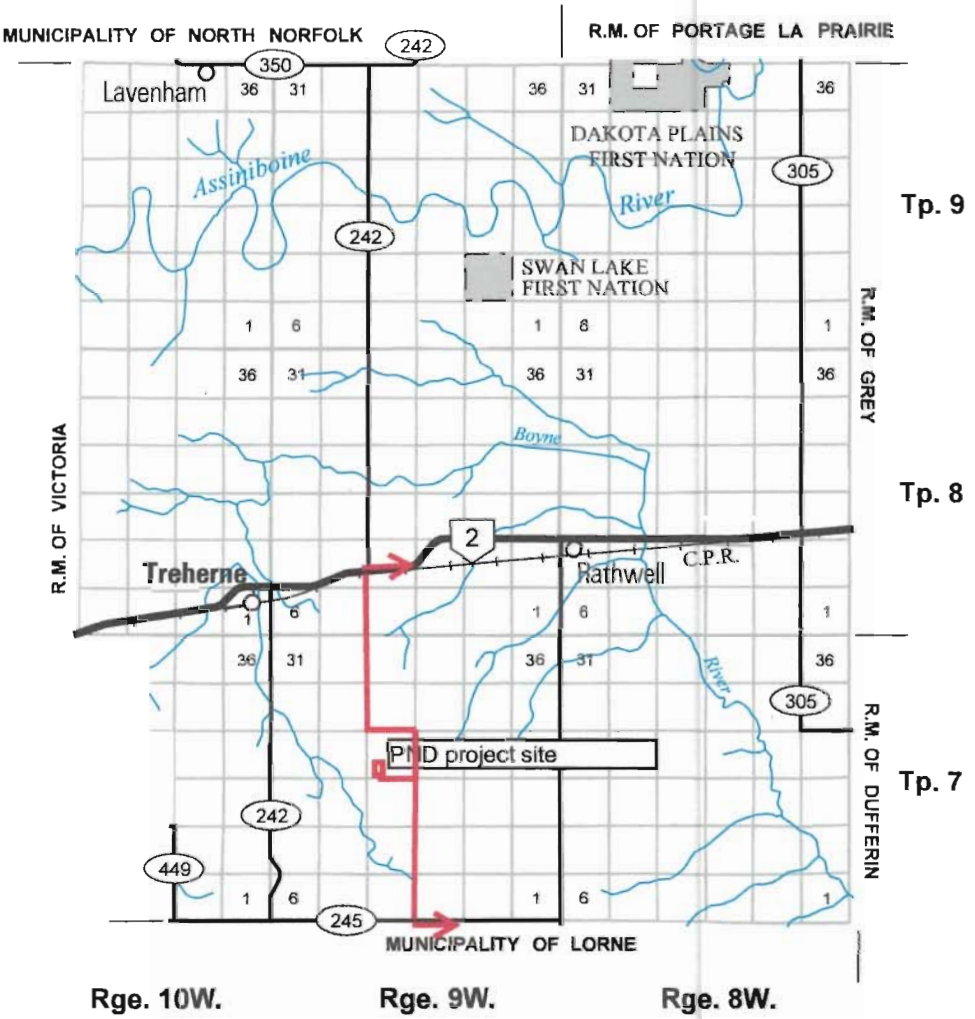
MUNICIPALITY OF NORFOLK TREHERNE

0 5
SCALE IN KILOMETRES

PROVINCE OF MANITOBA
INFRASTRUCTURE
HIGHWAY PLANNING AND DESIGN BRANCH
GEOGRAPHIC & RECORDS MANAGEMENT SECTION
WINNIPEG
JANUARY 1, 2015

LEGEND

PROVINCIAL TRUNK HIGHWAYS 2
PROVINCIAL ROADS 242
ACCESS ROADS .....
RAILWAYS .....



FORMERLY RM OF SOUTH NORFOLK

Rick Prejet

From: Friesen, Chris (SD) <Chris.Friesen@gov.mb.ca>
Sent: January-12-17 8:16 AM
To: lacdonze@mymts.net
Subject: Re: WWW Form Submission

Richard

Thank you for your information request. I completed a search of the Manitoba Conservation Data Centre's rare species database and found no occurrences at this time for your area of interest.

The information provided in this letter is based on existing data known to the Manitoba Conservation Data Centre 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 in any particular geographic area does not necessarily mean that species or ecological communities of concern are not present; in many areas, comprehensive surveys have never been completed. Therefore, this information should be regarded neither as a final statement on the occurrence of any species of concern, nor as a substitute for on-site surveys for species as part of environmental assessments.

Because the Manitoba CDC's 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 pass before it is utilized.

Third party requests for products wholly or partially derived from Biotics 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 Biotics data, as follows as: Data developed by the Manitoba Conservation Data Centre; Wildlife & 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 please contact me directly at (204) 945-7747.

Chris Friesen
Coordinator
Manitoba Conservation Data Centre

204-945-7747
chris.friesen@gov.mb.ca
http://www.manitoba.ca/conservation/cdc/

Sent: December 29, 2016 5:50 PM
To: Friesen, Chris (SD)
Subject: WWW Form Submission

Below is the result of your feedback form. It was submitted by WWW Information Request () on Thursday, December 29, 2016 at 17:50:16

DocumentID: Manitoba_Conservation

Project Title: Porcherie Notre Dame Ltee

Date Needed: 2017/01/06

Name: Richard Prejet

Company/Organization: Porcherie Notre Dame Ltee

Address: CP 40

City: Notre Dame de Lourdes

Province/State: Manitoba

Phone: 1-204-248-2699

Fax: 1-204-248-2703

Email: lacdonze@mymts.net

Project Description: Expansion of existing hog finisher site. Information requested in Site Assessment for Technical Review.

Information Requested: Rare species identified?

Format Requested: Word Document

Location: RM of Norfolk Treherne
LaSalle Red Boine Conservation District
SW21-7-9w

action: Submit
