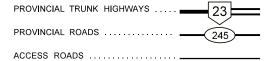
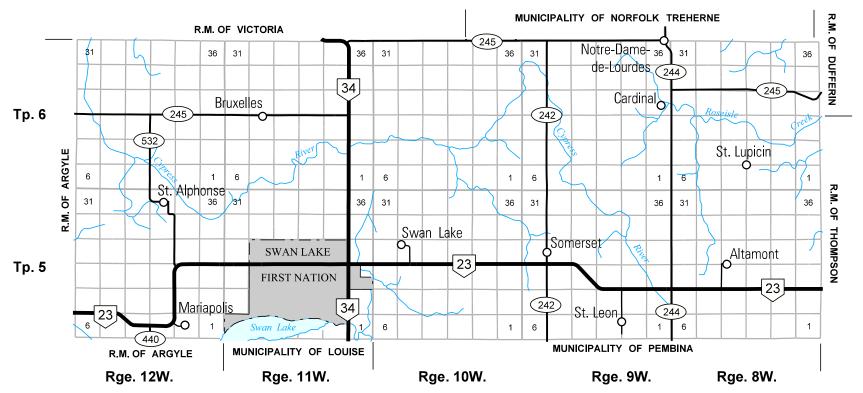


MUNICIPALITY OF LORNE

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

LEGEND





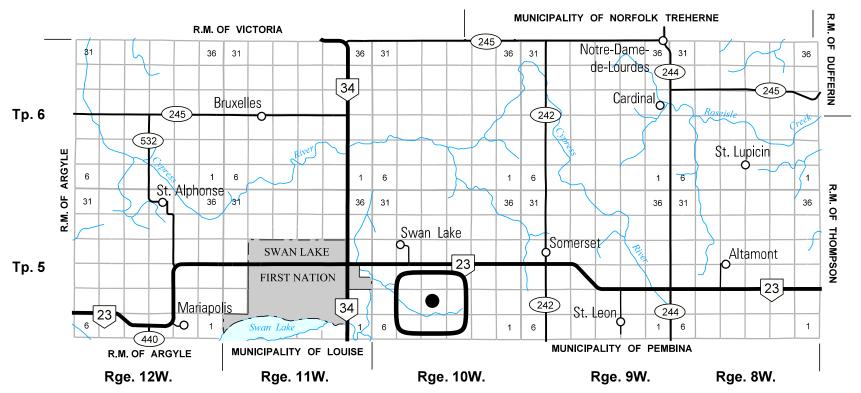


MUNICIPALITY OF LORNE

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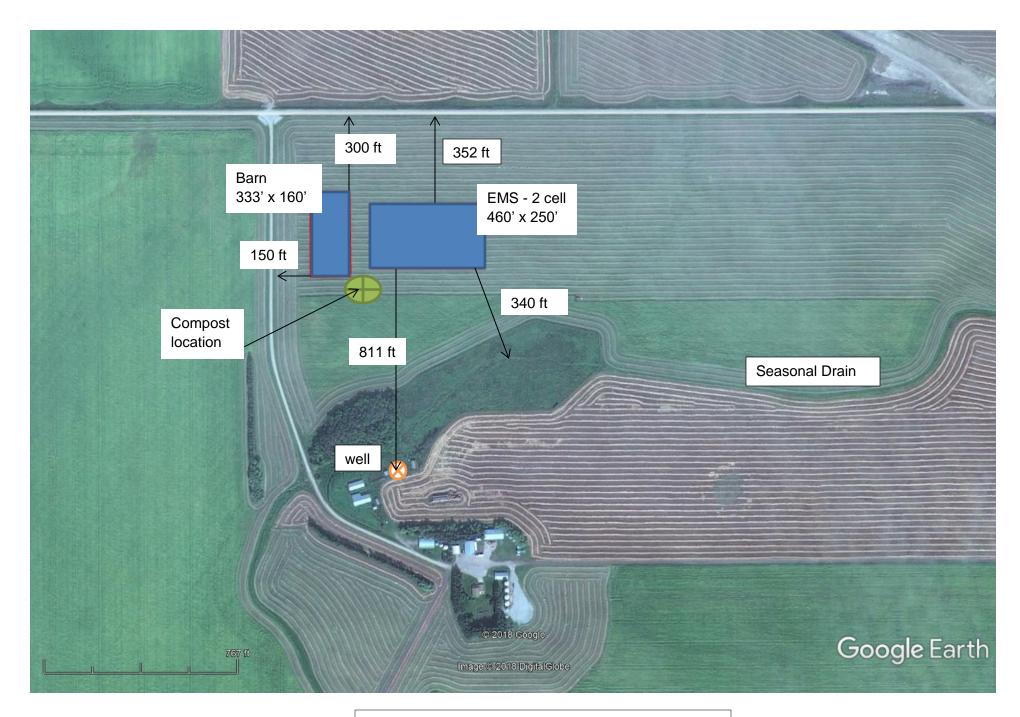
LEGEND







V.C. Hog Ltd. – Site Location



V.C. Hog Ltd.- NW 9-5-10W

Animal Units Calculator

			Current	Operation	Proposed	Operation
Α	В	С	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
	Mature cows (lactating and dry) including associated livestock	2		-		-
	Mature cows (lactating and dry)	1.35		-		-
	Heifers (0 to 3 months)	0.16		-		-
Dairy ³	Heifers (4 to 13 months)	0.41		-		
•	Heifers (> 13 months)	0.87		-		
	Bulls	1.35		-		
	Veal calves	0.13		-		1
	Beef cows including associated livestock	1.25		-	20	2
Deed	Backgrounder	0.5		-		
Beef	Summer pasture / replacement heifers	0.625		-		
	Feeder cattle	0.769		-		-
	Sows - farrow to finish (234-254 lbs)	1.25		-		-
	Sows - farrow to weanling (up to 11 lbs)	0.25		-		1
ъ.	Sows - farrow to nursery (51 lbs)	0.313		-		
Pigs	Boars (artificial insemination units)	0.2		-		1
	Weanlings, Nursery (11-51 lbs)	0.033		-		
	Growers / Finishers (51-249 lbs)	0.143	-	-	6,000	858
	Broilers	0.005		-		
	Roasters	0.01		-		-
	Layers	0.0083		-		-
Chickens	Pullets	0.0033		-		-
	Broiler breeder pullets	0.0033		-		-
	Broiler breeder hens	0.01		-		-
	Broilers	0.01		-		
Turkeys	Heavy Toms	0.02		-		-
-	Heavy Hens	0.01		-		-
Horses	Mares	1.333		-		-
Ob	Ewes	0.2		-		-
Sheep	Feeder lambs	0.063		-		-
Oth 1 :	Type:			-		
Other Livestock	Type:			-		-
			Total Current:	-	Total Proposed:	883

Footnotes:

For all other livestock or operation types please inquire with the Manitoba Agriculture Contacts

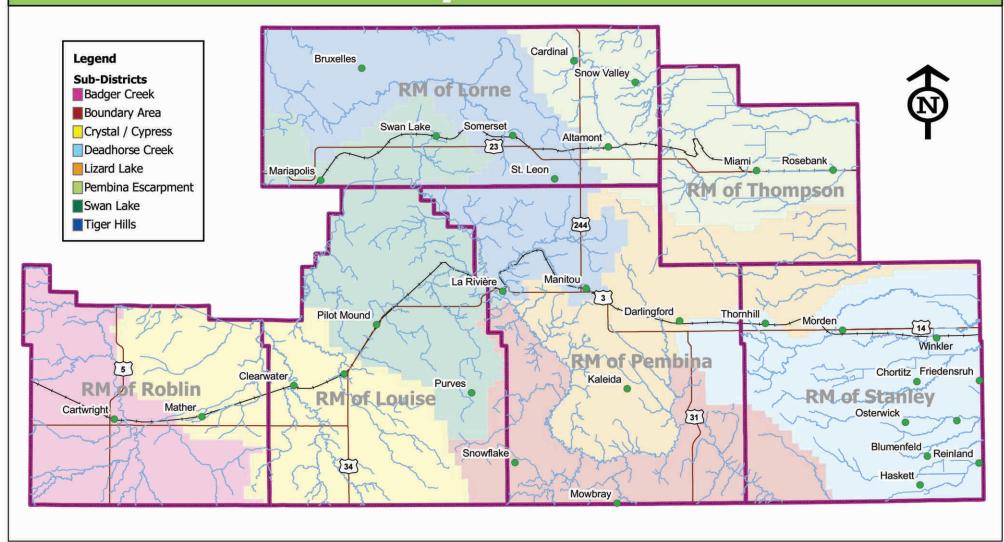


¹ Enter the current number of animals on the farm based on the operation's capacity (animal places) or previous Conditional Use Approval.

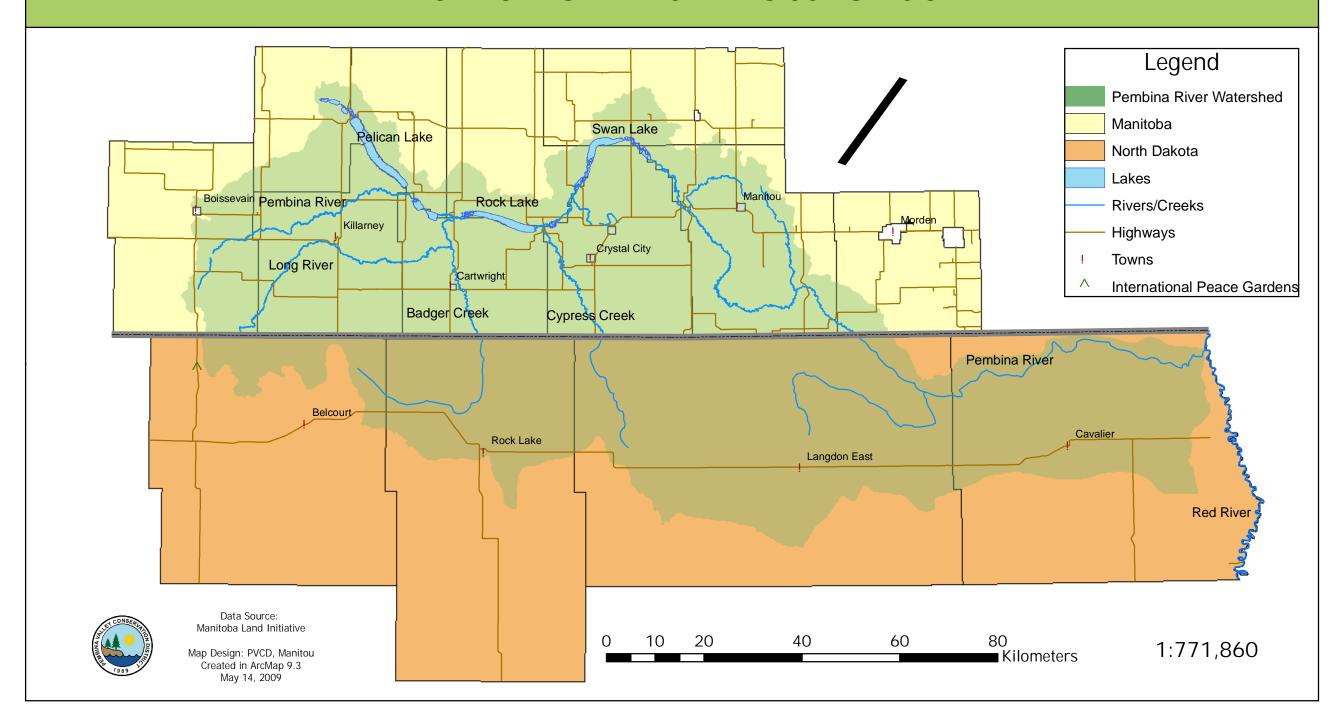
 $^{^{\}rm 2}$ Enter the total number of animals associated with the operation post construction or expansion.

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.

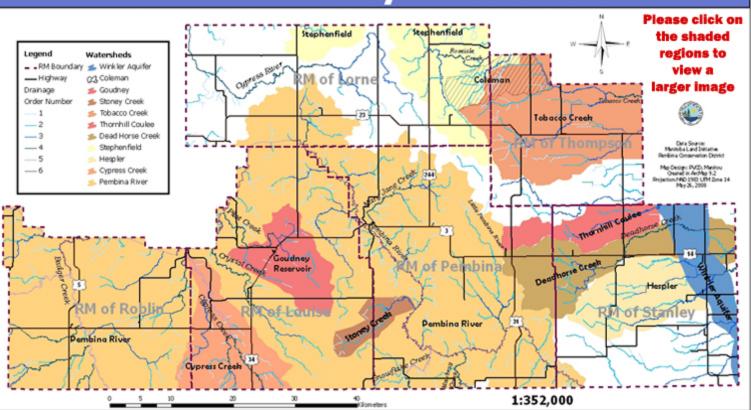
Pembina Valley Conservation District



Pembina River Watershed



Pembina Valley Watersheds



			Daily M	Manure Production		Production Period	Number of Animals		Total Manure Volume
Animal Type (A)	Animal Sub-type (B)	References (C)	Manure Type (D)	Default Manure Production (ft ³ /animal/day) (E)	Operation Manure Production ¹ (ft ³ /animal/day) (F)	² (Days) (G)	³ (Capacity) (H)	Total Manure Volume (ft³) (FxGxH)	for Semi-Solid and Liquid Manure (Imp Gal)
			Semi-Solid 5	3.5				-	0.0
	Free Stall		Solid	3.4				-	
 4		T.I. 0 50	Liquid ⁵	3.5				-	0.0
Dairy (milking cows ⁴ and associated		Table 6, pg 59, FPGs for Dairy	Semi-Solid 5	3.6				-	0.0
livestock)	Tie Stall	1995	Solid	3.5				-	
vocasiny			Liquid ⁵	3.6				-	0.0
	Loose Housing		Solid	3.0				-	
	Milking Parlour Manure and Washwater		Liquid	0.5					
	Beef cows including associated livestock		Solid	1.2	1.2	365.00	20	8,760.00	
Beef	Backgrounder (200 day)	pg 117, FPGs for	Solid	0.73				-	
Deel	Summer pasture / replacement heifers	Hogs 1998	Solid	0.85				-	
	Feeder cattle		Solid	1.1				-	
	Sows - farrow to finish (234 - 254 lbs)		Liquid	2.3				-	0.0
	Sows - farrow to wean (up to 11 lbs)	MAFRI website,	Liquid	0.8				-	0.0
Pigs	Sows - farrow to nursery (51 lbs)	FPGs for Pigs	Liquid	1				-	0.0
	Weanlings, Nursery (11 - 51 lbs)	2007	Liquid	0.1				-	0.0
	Grower / Finisher (51 - 249 lbs)		Liquid	0.25	0.25	365.00	6,000	547,500.00	3,410,925.0
			Yearly Manure Pro		ıction			Total Manure	Total Manure Volume
Animal Type	Type of Operation			Default Manure Production (ft³/year/bird space)		Production Period ² (Days)	Number of Birds ³ (Capacity)	Volume (ft ³) (F/365xGxH)	for Semi-Solid and Liquid Manure (Imp Gal)
	Broilers – floor ⁶			1.23				-	
	Broiler breeder hens 7			2.3				-	
	Broiler breeder pullets ⁶			0.99				-	
	Roasters – floor ⁶	T.I. 0. 05		1.16				-	
Chickens	Layers – cage ⁸	Table 3, pg 85, FPGs for Poultry		2.33				-	0.0
Cilicketts	Layers – floor ⁷	2000		1.68				-	
	Layers – solid pack ⁹							-	
	Pullets – cage ⁸]		0.71				-	0.0
	Pullets – floor ⁶]		0.75				-	
	Pullets – solid pack ⁹	<u> </u>						-	
	Broilers ⁶	Table 3, pg 85,		2.83				-	
Turkeys	Heavy toms ⁶	FPGs for Poultry		5.58				-	
	Heavy hens ⁶	2000		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/ft³

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/ft³

⁸ Manure removed from barn at 90% moisture content with a density of 59 lb/ft³

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

If available, indicate the dimensions of any <u>proposed</u> manure storage facility (MSF) that will be used to store manure from the proposed project:

	Prop	osed Manu	ire Storage	Facility D	imensio	ons	Storage
CELL	Width	Length	Depth	Height (Above	Slope	e (H:L)	Capacity (days)
CEEE			1	Grade)	Inside	Outside	(Gays)
Primary	200 ft	180 ft	13 ft	4 ft	3.5	4	135
Secondary	200 ft	360 ft	12 ft	4 ft	3.5	4	316
Tertiary	ft	ft	ft	ft			
Circular Tank		Diameter	Height	Depth			
Circular	ı anx	ft	ft	ft			

The construction, modification or expansion of any manure storage structure requires a permit from Manitoba Sustainable Development as per the *Livestock Manure and Mortalities Management Regulation (M.R. 42/98)*.



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	20	12	15	300
Dry milking cow **		10	12	-
Lactating cow **		25	30	-
Bison		8	10	-
Horses				
Horses		8	11	-
Hogs				
Sow (Farrow/wean)	-	6	.5	-
Dry Sow/Boar		4	4	-
Feeder	6,000	;	3	18,000
Nursery (33 lb.)		2	2	-
Chickens				
Broilers		0.0)35	-
Roasters/Pullets		0.	04	-
Layers		0.0)55	-
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)	18,300
	***	TOTAL with 10	% wash water	20,130

^{*} For beet, dairy, bison and horse enterprises:

Use summer numbers if appropriate for the operation. Otherwise base projections on winter values.

Always use the greater of the two values.

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

Enter this number on page 7 of Application Form.

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

Other consumption:

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

U	Unit Conversions										
Total per day	Total per year	Unit									
20,130	7,347,450	IG									
83,192	30,365,007	litres									
0.083	30	cubic decametres (dam³)									

Enter this number on page 7 of Application Form.

Conversion Factor: 1 IGPM = 4.546 I/m

SW9-5-10W.txt

line

Well PID:

113804

Location:

SW9-5-10W

UTMX:516946.7

UTMY:5468966.1 XY Accuracy:No Accuracy

Owner:

DALE VAN CAUWENBERGHE

Driller:

Watkins & Argue Construction Co.

Well Name:

Date Completed: 2000 Mar 10

Well Use:

PRODUCTION

Water Use:

Domestic, Livestock

Well Status:

ACTIVE

Aquifer:

SHALE

REMARKS:

60 FT E OF HOUSE, EC=1800, H=5, FE=.5, CHLORIANTED, SEAL AT 98

FT

WELL LOG (Imperial units)

From

To(ft.) Log

0.0 2 TOPSOIL

45 2.0

OXIDIZED SHALE

45.0 106 **BLUE SHALE**

106.0 121

LAYER OF HARD AND SOFT SHALE

121.0 141

BLUE SHALE

WELL CONSTRUCTION

Inside Outside Slot

To(ft) Const.Method Dia.(in) Dia.(in) Size(in) Type From

Material

0.0 98.0

5.0

INSERT

PVC

98.0 136.0 PERFORATIONS 5.0 SAW CUT

PVC

BENTONITE

CASING GROUT

CASING

Top of Casing: 1.0 ft. above ground

PUMPING TEST

Date : 2000 Mar 10

Pumping 10.0 Imp. gallons/minute

Water level before test

: 70.0 ft below ground

Water level at end of test : Test duration:

Test Zone: from 98.0 ft

3:00:00

to 136.0 ft

NW9-5-10W.txt

line

Well PID: 69948

Location: NW-9-5-10W

UTMX:516951.9 UTMY:5469784.5 XY Accuracy:UNKNOWN

Owner: E VANCAUWENBERGHE

Driller: Watkins & Argue Construction Co.

Well Name:

Date Completed: 1990 Jul 16
Well Use: PRODUCTION

Water Use: Domestic, Livestock

Well Status: UNKNOWN Aquifer: SHALE

REMARKS:

EC=1200, FE=2.0, HARD=25 CHEMICAL ANALYSIS 1993

WELL LOG (Imperial units)

From To(ft.) Log

0.0 23 YELLOW CLAY AND SHALE

23.0 36 OXIDIZED SHALE

36.0 55 BROKEN BLUE SHALE

55.0 82.9 BLUE SHALE

82.9 94.9 SOFT BLUE SHALE

94.9 104.9 BLUE SHALE

WELL CONSTRUCTION

Inside Outside Slot

From To(ft) Const.Method Dia.(in) Dia.(in) Size(in) Type Material 0.0 40.0 casing 5.0 INSERT PVC

40.0 99.9 perforations 5.0 SAW CUT PVC

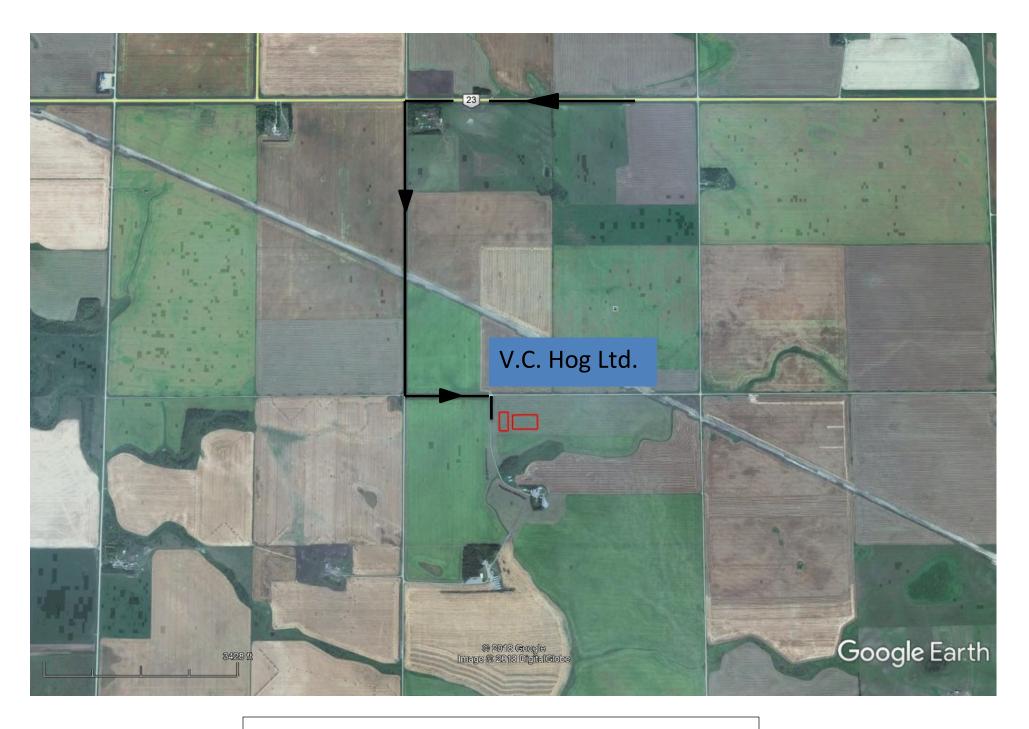
Top of Casing: 0.0 ft. above ground

PUMPING TEST

Date: 1990 Jul 16 Pumping 9.0 Imp. gallons/minute

Water level before test : 36.0 ft below ground Water level at end of test : 75.0 ft below ground

Test duration: 6:00:00



Truck Haul Route - V.C. Hog Ltd.

Gary

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/sd/cdc/

From: Gary & Shaunda [mailto:srossing@mymts.net]

Sent: December-30-17 3:23 PM

To: Friesen, Chris (SD) < Chris.Friesen@gov.mb.ca>

Subject: re: species at risk information

Hi Chris

I am working with VC Hogs Ltd near Swan Lake, Manitoba on a technical review application for a farm expansion and am required to determine whether any species at risk are present at the building site or manure spread acres. I am hoping that you can provide the necessary information.

A list of manure spread fields involved with this proposed site is attached. Print is fairly small but can be enlarged for easier reading.

I trust this is the information you need.

Thankyou.

Pig/Operation Type	Storage Type	Volatilization	Animal Numbers	Weight In	Weight Out	Average Animal Wt	Days on Feed per Cycle	Number of Cycles for the Place per Year	Feed Consumed Per Pig Per Day	Protein	N Excreted Per Herd Adjusted for Storage N	Phosphorus Content of Feed (DM)	P2O5 Excreted Per Herd Per Year
			(Places)	(lb)	(lb)	(lb)	(days)	(days)	(kg/day)	%	(lb/yr/herd)	%	(lb/yr/herd)
Gestating Sow	Liquid Uncovered Earthen	30%		447	630	539	121	3	2.3	14%	0	0.53%	0
Nursing Sow	Liquid Uncovered Earthen	30%		539	539	539	21	15.2	6.5	20%	0	0.63%	0
Nursing Litter	Liquid Uncovered Earthen	30%		3.1	13.6	8	21	15.2	0	n/a	0	n/a	0
Live Cull Sow	Liquid Uncovered Earthen	30%		630	630	630	14	26.1	2.3	14%	0	0.46%	0
Bred Gilt	Liquid Uncovered Earthen	30%		340	447	394	121	3	2.3	14%	0	0.53%	0
Gilts (Purchased)	Liquid Uncovered Earthen	30%		290	340	315	28	13.0	3.2	16%	0	0.46%	0
Boars (Purchased)	Liquid Uncovered Earthen	30%		270	660	465	365	1	2.5	14%	0	0.46%	0
Weanlings	Liquid Uncovered Earthen	30%		13.6	61.6	38	52	6.9	0.7	20%	0	0.64%	0
Growers/Finishers	Liquid Uncovered Earthen	30%	6000	61.6	280	171	112	3	2.8	16%	155456	0.46%	76806
Sows, farrow to 6.2 kg	Liquid Uncovered Earthen	30%		n/a	n/a	n/a	365	1	n/a	n/a	0	n/a	0
Sows, farrow to 28 kg	Liquid Uncovered Earthen	30%		n/a	n/a	n/a	365	1	n/a	n/a	0	n/a	0
Sows, farrow to finish	Liquid Uncovered Earthen	30%		n/a	n/a	n/a	365	1	n/a	n/a	0	n/a	0

Last Revised April 13, 2016

Species	Туре	Storage Type	Volatilization	Animal Numbers	Weight In (lb)	Weight Out (lb)	Average Animal Wt (lb)	(Days)	Cycles per Year	Rate of Gain (lb/day)	(days)		P2O5 Excreted Per Herd Per Year (Ib P2O5/year)
Cow Calf	Mature Cows (>2 years old)	Field Storage	40%	20	1375	1375	1375	365	1.0		365	2179.2	908.4
Cow Calf	Bred Heifer (14 mo - 2 years)	Field Storage	40%	0	926	1238	1082	280	1.0	1.42	280	0.0	0.0
Cow Calf	Replacement Heifers (7 mo-14 mo)	Field Storage	40%	0	581	926	754	225	1.0	1.53	225	0.0	0.0
Cow Calf	Unweaned Calves (0-7 mo)	Field Storage	40%	0	86	581	334	210	1.0	2.35	210	0.0	0.0
Cow Calf	Bulls	Field Storage	40%	0	2100	2200	2150	365	1.0		365	0.0	0.0
Cow Calf	Mature Cows and Bred Heifers, plus associated livestock	Field Storage	40%	0	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0.0	0.0
Feeder	Feedlot Cattle - long keep	Field Storage	40%	0	581	1300	941	240	1.0	2.99	240	0.0	0.0
Feeder	Feedlot Cattle - short keep	Field Storage	40%	0	975	1300	1138	116	1.0	2.80	116	0.0	0.0
Feeder	Backgrounders - pasture	Field Storage	40%	0	793	975	884	105	1.0	1.73	105	0.0	0.0
Feeder	Backgrounders - confined	Field Storage	40%	0	500	793	647	180	1.0	1.62	180	0.0	0.0

Last Revised January 21, 2015

	Rem	oval	Uptake					Rem	oval	Uptake
Crop	P2O5	N	N	Units	Yield	Units	Acreage	P2O5	N	N
								(lb)	(lb)	(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	42.4	bu/ac	609	26854	49836	82371
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	103.7	bu/ac	159	4287	10223	17642
Pasture (grazed)	10	34.2	34.2	lb/ton	0.5	ton/ac		-	-	-
Peas	0.69	2.34	3.06	lb/bu		bu/ac		-	-	-
Potatoes	0.09	0.32	0.57	lb/cwt		cwt/ac		-	-	-
Rye	0.45	1.06	1.67	lb/bu		bu/ac		-	-	-
Soybeans	0.84	3.87	5.2	lb/bu	37.9	bu/ac		-	-	-
Sunflower	1.1	2.8		lb/cwt		cwt/ac		-	-	-
Wheat - Spring	0.59	1.5	2.11	lb/bu	56.7	bu/ac	609	20373	51795	72859
Wheat - Winter	0.51	1.04	1.35	lb/bu		bu/ac		-	-	-
						Sub Total	1377	51514	111854	172872
			Estimate	d Average R	emoval/Up	take (lb/ac)		37.4	81.2	125.5
					Addi	tional Acres				
				Crop Plann	ed on Addi	tional Acres				
					To	tal Acreage	1377			
Note:	Additional	acres inclu	de acres fo	r which crop	removal o	r soil data is	limited or u	navailable.		

Last revised August 20, 2014

Species	Animal Category/Operation type	N	P2O5
		(lb/year)	(lb/year)
Pigs	Gestating Sow	0	0
	Nursing Sow	0	0
	Nursing Litter	0	0
	Live Cull Sows	0	0
	Bred Gilts	0	0
	Gilts	0	0
	Boars	0	0
	Weanlings	0	0
	Growers/finishers	155456	76806
	Sows, farrow to 5 kg	0	0
	Sows, farrow to 23 kg	0	0
	Sows, farrow to finish	0	0
Beef	Mature Cows (>2 years old)	2179	908
	Bred Heifer (14 mo - 2 years)	0	0
	Replacement Heifers (7 mo-14 mo)	0	0
	Unweaned Calves (0-7 mo)	0	0
	Bulls	0	0
	Mature Cows and Bred Heifers, plus associated livestock	0	0
	Feedlot Cattle - long keep	0	0
	Feedlot Cattle - short keep	0	0
	Backgrounders - pasture	0	0
	Backgrounders - confined	0	0
Dairy	Lactating cow	0	0
	Dry cow	0	0
	Calf, 0-3 months	0	0
	Calf, 4-13 months	0	0
	Replacements, >13 months	0	0
	Mature Cows, plus assoc livestock	0	0
Sheep	Ewes	0	0
	Replacement Ewes	0	0
	Rams	0	0
	Lambs	0	0
	Ewes, plus assoc livestock	0	0
	Feeder	0	0
Chickens	Broilers	0	0
	Broiler Breeder Pullets	0	0
	Broiler Breeder Hens	0	0
Layers	Layer Pullets	0	0
	Layer Hens	0	0
	Breeder Pullets	0	0
	Breeder Hens	0	0
Turkeys	Broiler Hens (0-9 wks)	0	0
	Hens (0-11 wks)	0	0
	Heavy Hens (0-14 wks)	0	0
	Light Toms (0-12 wks)	0	0
	Toms (0-13 wks)	0	0
	Heavy Toms (0-15 wks)	0	0
	Breeding Hen Growers (0-30 wks)	0	0
	Breeding Hens (30-60 wks)	0	0
	Breeding Tom Grower (0-18 wks)	0	0
	Breeding Tom Grower (0-30 wks)	0	0
	Breeding Tom (30-60 wks)	0	0
	Total	157635	77714

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

Nutrients Excreted	lbs
Nitrogen	157635
P2O5	77714
Crop Nutrient Use	lb/ac
Nitrogen Uptake	125.5
P2O5 Removal	37.4
Land Base Requirements	acres
Acres for Nitrogen Uptake	1256
Acres for 2 x P2O5 Removal	1039
Acres for 1 x P2O5 Removal	2077

CROP ROTATION TABLE



А	В	С	D	E
Expected Crops in the Rotation	Acreage	Historical Yield	Units	Source of Yield Information
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.



MANURE APPLICATION FIELD CHARACTERISTICS TABLE

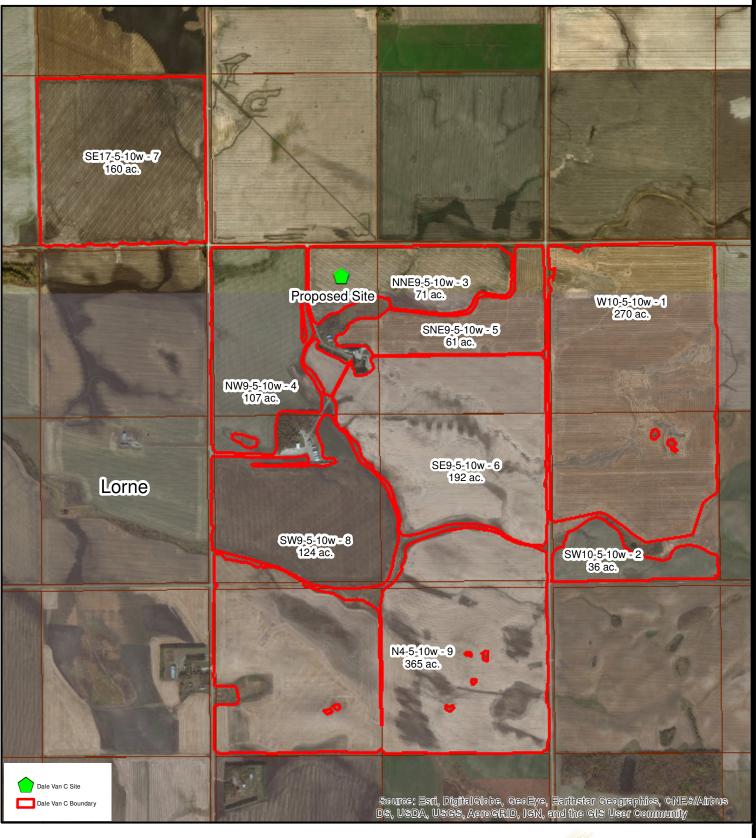
	Α	В	С	D	E	F	G	Н	I	J
Field	Legal Description	Rural Municipality	O/C/L/ A	Total Acreage	Setbacks, including features	Net Acreage for Manure Application	Agriculture Capability Class and Subclass	Soil Phosphorus (ppm Olsen P) 0-6 inches	Development Plan Designation	Zoning
1										
2										
3										
4										
5										
6										
7										
8										
9										
10										
11										
12										
13										
14										
15										
16										
17										
18										
19										
20										

l	Enter the legal description for each p	arcel of land that will receive m	nanure: Sec, Twp, Rge	or River Lot (including parish).

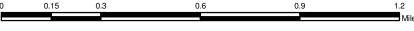
Total Net Acreage for Manure Application:

Α.	Enter the legal description for each parcel of land that will receive manure: Sec, Twp, Rge or River Lot (including parish).	
В.	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.	
Η.	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 or	ompleted 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).	

Dale Van C. - Spread Fields Map

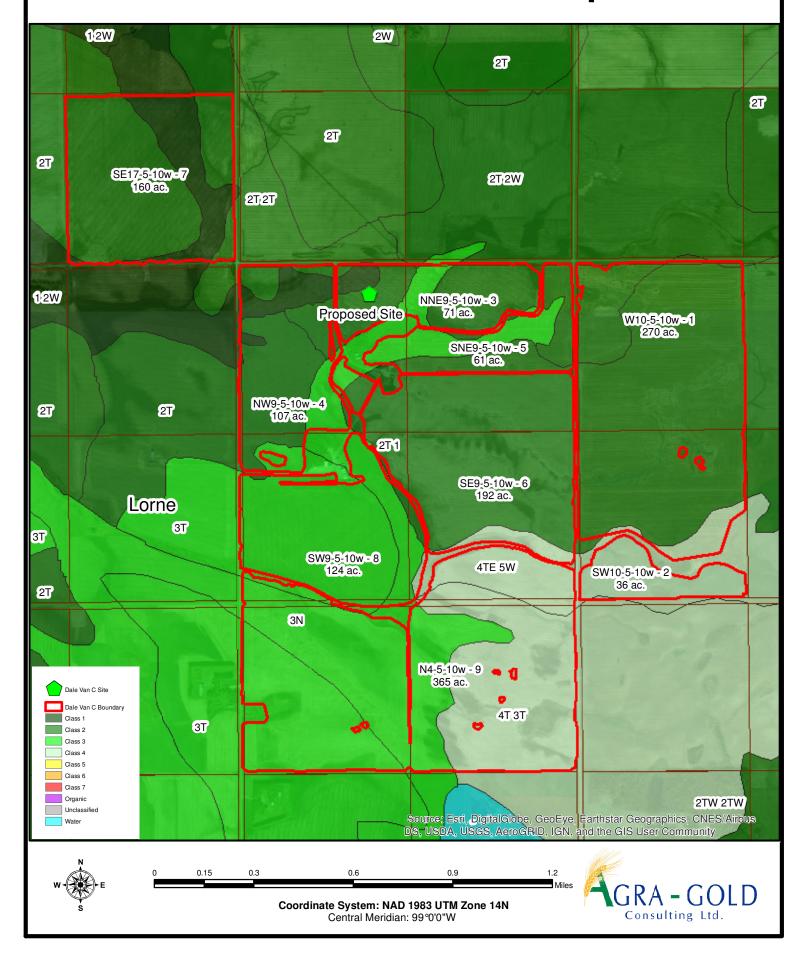




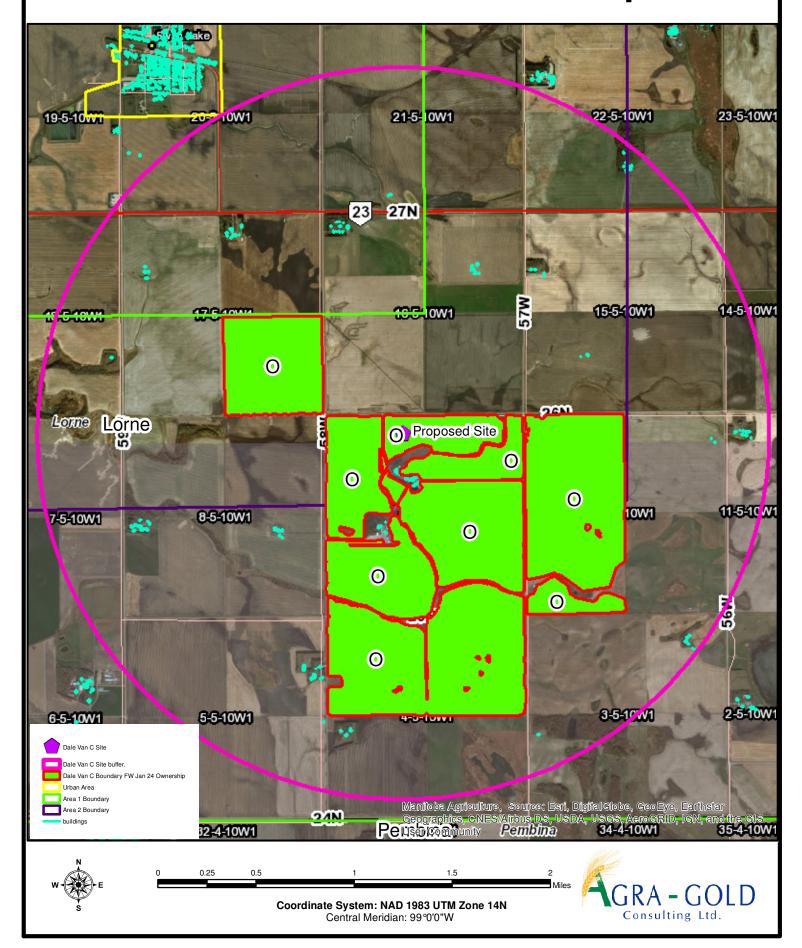




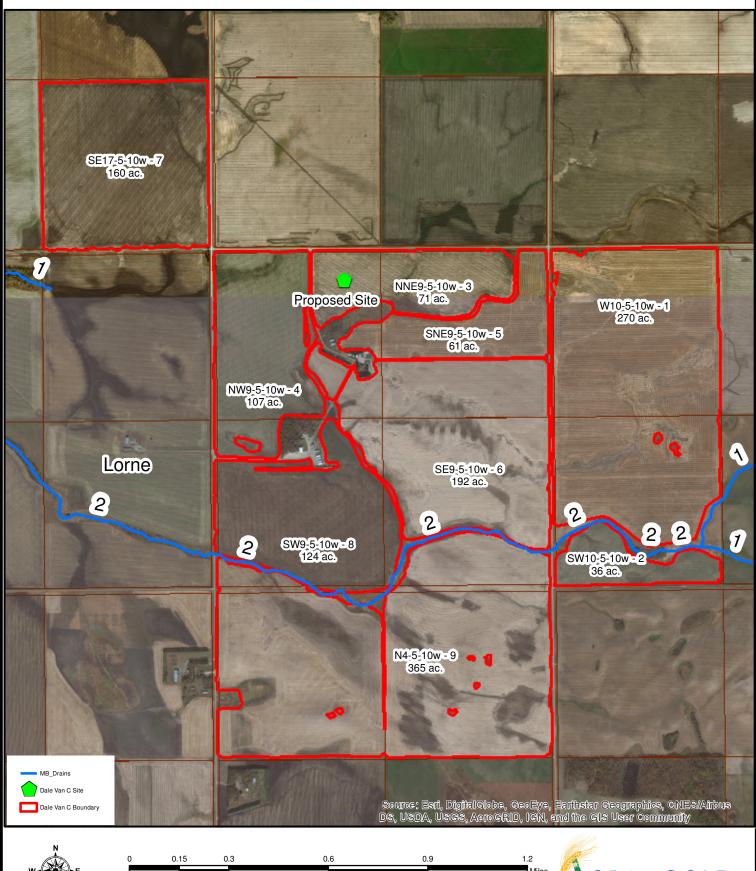
Dale Van C. - Soils Map



Dale Van C. - Land Use Map



Dale Van C. - Drains Map







GRA - GOLD
Consulting Ltd.



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:

DAA FARMS

Lot Number:

171201_168

Grower Field Name: Reference Field Name Date Sampled: Received Date 2017/11/29 2017/12/01

Legal Location:

W 10-5-10 W1

Date Reported:

2017/12/14

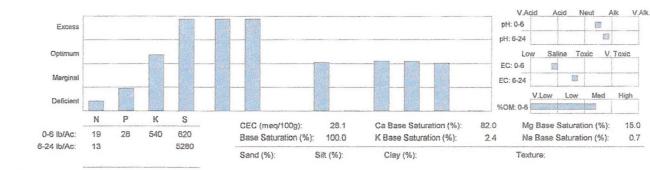
Attention: Kory Van Damme

Client ID: 09-0022 Total Acres: Sampler:

274 BC

CI EC

N **[2*** K S Ca Mg Na B Cu Fe Mn Zn pH OM Sample ID Depth ppm ppm ppm ppm ppm ppm dS/m % ppm ppm ppm ppm ppm ppm ppm 171201_168-05 0-6 10 14.0 270 310 4600 500 45 0.9 36.0 5.4 1.1 7.5 1.77 5.7 171201_168-06 6-24 2 880 7.8 3.30



Total lb/Ac measured: Estimated lb/Ac to 24 inch:

5900 540 5900 Recommendation:

Comments: PREVIOUS CROP: WHEAT

Preliminary Report Some analysis is outstanding

* Bicarbonate-Extractable (Olsen) Phosphate







Farmers Edge Laboratories 1357 Dugald Road Winnipeg, Manitoba Canada R2J 0H3

Phone: 1 204 233 4099

Report To: Fortified Agronomy

Grower:

DAA FARMS

Lot Number:

171201_170

Grower Field Name:

Date Sampled:

2017/11/29

Pilot Mound, MB ROG 1P0

Reference Field Name Legal Location:

Received Date SW 10-5-10 W1

2017/12/01

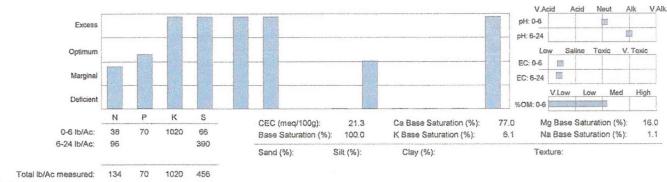
Attention: Kory Van Damme

Client ID: 17-0008 **Total Acres:** Sampler:

39 BC Date Reported:

2017/12/06

N p* K S Ca Mg Na Cu CI pH EC OM Sample ID ppm dS/m % Depth ppm ppm ppm ppm mag ppm ppm ppm ppm ppm ppm ppm 7.1 0.82 4.7 171201_170-01 19 35.0 510 33 3300 410 53 0.8 36.0 171201_170-02 27.0 0.73 6-24 16 65



Estimated lb/Ac to 24 inch: 134 456

Comments: PREVIOUS CROP: CANOLA ZONE 2: 16 ACRES Recommendation: * Bicarbonate-Extractable (Olsen) Phosphate







Farmers Edge Laboratories 1357 Dugald Road Winnipeg, Manitoba Canada R2J 0H3

Phone: 1 204 233 4099

Report To: Fortified Agronomy

Box 55

Pilot Mound, MB ROG 1P0

Grower Field Name:

DAA FARMS

Lot Number: Date Sampled:

Date Reported:

171201_171

Reference Field Name

Received Date

2017/11/29 2017/12/01

Legal Location: Total Acres:

NNE 9-5-10 W1 72

2017/12/06

Client ID: 17-0008

Attention: Kory Van Damme

Estimated lb/Ac to 24 inch:

35

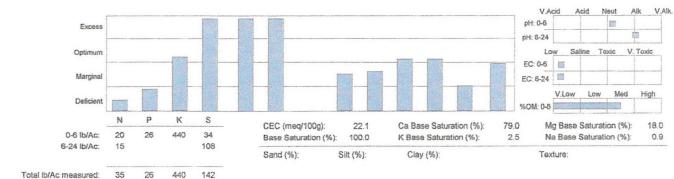
Sampler:

142

Grower:

BC

		N	Par.	M	S	Ca	Mg	Na	125	Cu	re	MU	2n	GI	ឯក	EU	CHAI
Sample ID	Depth	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm		dS/m	%
171201_171-01 171201_171-02	0-6 6-24	10	13.0	220	17 18	3500	480	46	0.6	0.6	39.0	6.8	1.0	5.9	7.2 8.1	0.51	6.0



Recommendation: Comments: PREVIOUS CROP: WHEAT ZONE 3: 22 ACRES * Bicarbonate-Extractable (Olsen) Phosphate







Farmers Edge Laboratories 1357 Dugald Road Winnipeg, Manitoba Canada R2J 0H3

Phone: 1 204 233 4099

Report To: Fortified Agronomy

Box 55

Grower:

DAA FARMS

Lot Number:

171201_172

Grower Field Name: Reference Field Name Date Sampled: Received Date

2017/11/29 2017/12/01

Pilot Mound, MB R0G 1P0

Legal Location: Total Acres:

NW 9-5-10 W1

Date Reported:

Client ID:

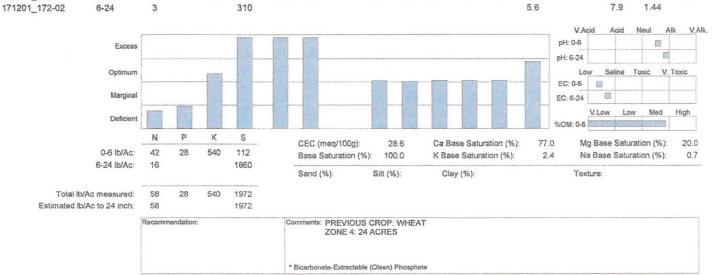
Attention: Kory Van Damme 17-0008

Sampler:

110 BC

2017/12/06

N P K S Ca Mg Na B Cu Fe Mn Zn CI OM Sample ID Depth dS/m % ppm 171201_172-01 0-6 21 14.0 270 56 4400 690 44 0.9 0.8 24.0 4.3 1.9 11.0 7.6 0.77 7.5









Farmers Edge Laboratories 1357 Dugald Road Winnipeg, Manitoba Canada R2J 0H3

Phone: 1 204 233 4099

Report To: Fortified Agronomy

Grower:

DAA FARMS

Lot Number:

171201_177

Grower Field Name: Reference Field Name Date Sampled: Received Date

2017/11/29 2017/12/01

Pilot Mound, MB R0G 1P0

Legal Location:

SNE 9-5-10 W1

2017/12/06

Attention: Kory Van Damme

Total Acres:

63

Date Reported:

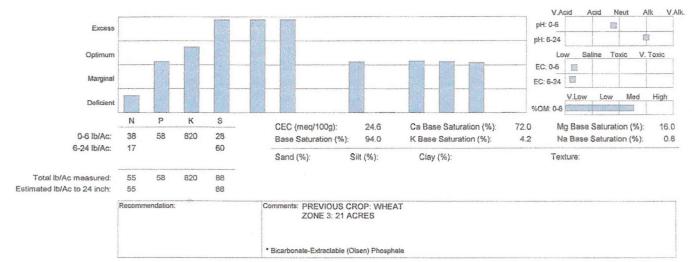
Client ID:

17-0008

Sampler:

BC

		N	5*	K	S	Ca	Mg	Na	B	Cu	Fe	Min	Zn	CI	Hq	EC	OM
Sample ID	Depth	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm		dS/m	%
171201_177-01	0-6	19	29.0	410	14	3600	490	46	1.1		51.0	7.9	2.5		6.8	0.60	6.2
171201_177-02	6-24	3			10										8.0	0.46	









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 Field Name:

Reference Field Name Legal Location:

Total Acres:

Grower:

5332

SE 9-5-10 W1

DAA FARMS

198

Lot Number: 171130_087 Date Sampled: 2017/11/28

2017/11/30 Received Date

Date Reported:

2017/12/14

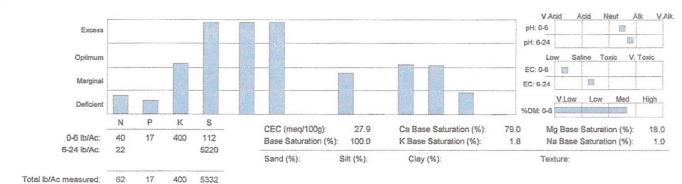
Attention: Kory Van Damme Client ID: 09-0022

Estimated lb/Ac to 24 inch:

62

Sampler: BC

		M	\$50 tr	K	s	Ca	Mg	Na	B	Cu	Fe	Mn	Zn	CI	pH	EC	OM
Sample ID	Depth	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm		dS/m	%
171130_087-03	0-6	20	8.5	200	56	4400	600	66	0.7		40.0	5.3	0.9		7.5	0.68	6.7
171130_087-04	6-24	4			870										7.8	2.68	



Recommendation: Comments: PREVIOUS CROP: CANOLA **Preliminary Report** Some analysis is outstanding * Bicarbonate-Extractable (Olsen) Phosphate







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:

DAA FARMS

Lot Number:

171130_085

Grower Field Name: Reference Field Name

2017/11/28 Date Sampled:

Legal Location:

SE 17-5-10 W1

Received Date

2017/11/30

Attention: Kory Van Damme

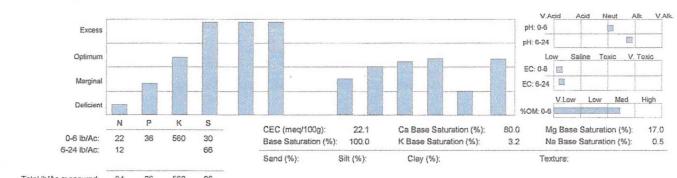
Client ID: 09-0022 Total Acres: Sampler:

BC

164

Date Reported: 2017/12/14

		N	la.	K	S	Ca	Mg	Na	B	Cu	Fe	Mn	Zn	CI	pH	EC	OM
Sample ID	Depth	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	 	dS/m	%
171130_085-05	0-6	11	18.0	280	15	3500	450	25	0.6	8.0	65.0	17.0	1.0	<2	7.1	0.33	5.8
171130_085-06	6-24	2			11									6.1	7.8	0.51	



Total lb/Ac measured: Estimated lb/Ac to 24 inch:

96 96 34

Comments: PREVIOUS CROP: SOYBEANS

Preliminary Report Some analysis is outstanding

* Bicarbonate-Extractable (Olsen) Phosphate







Attention: Kory Van Damme

Farmers Edge Laboratories 1357 Dugald Road Winnipeg, Manitoba Canada R2J 0H3

Phone: 1 204 233 4099

Report To: Fortified Agronomy Grower: DAA FARMS Lot Number: 171201_173 Box 55 Grower Field Name: Date Sampled: 2017/11/29 Pilot Mound, MB R0G 1P0 Reference Field Name 2017/12/01 **Received Date** Legal Location: SW 9-5-10 W1 Date Reported: 2017/12/06

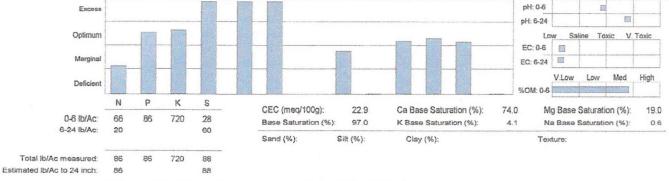
121

Client ID: 17-0008 Sampler: BC

N P* K S Ca Mg Na B Cu Fe Mn Zn Cl pl

Total Acres:

		N	p+	K	S	Ca	Mg	Na	B	Cu	Fe	Mn	Zn	CI		pH	EC	0	M
Sample ID	Depth	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm	ppm			dS/m	9	%
171201_173-01	0-6	33	43.0	360	14	3400	520	32	0.7		57.0	15.0	3.4			6.9	0.66	7	.4
171201_173-02	6-24	3			10											7.8	0.56		
															V.Acid	Acid	Neut	Alk	V.Alk
	Fuene	-													nH-0-6		105		



Recommendation:

Comments: PREVIOUS CROP: CORN
ZONE 4: 25 ACRES

* Bicarbonale-Extractable (Olsen) Phosphate



Interpretive Guidelines and Class Limits are based on accepted guidelines. The client is advised to consult with an agronomic professional for detailed interpretation Farmer's Edge Laboratories limits liability to the cost of the analysis.





Farmers Edge Laboratories 1357 Dugald Road Winnipeg, Manitoba Canada

R2J 0H3 Phone: 1 204 233 4099

Report To: Fortified Agronomy

Pilot Mound, MB R0G 1P0

Depth

0-6

6-24

Grower:

DAA FARMS

N 4-5-10 W1

Lot Number:

171201_176

Grower Field Name:

P*

ppm

18.0

ppm

14

2

K

ppm

340

S

ppm

400

300

Reference Field Name

Ca

ppm

5800

Date Sampled: Received Date 2017/11/29 2017/12/01

Legal Location:

377

Date Reported:

2017/12/14

Kory Van Damme Attention:

Client ID:

Sample ID

171201_176-01

17-0008

Total Acres: Sampler:

Mg

ppm

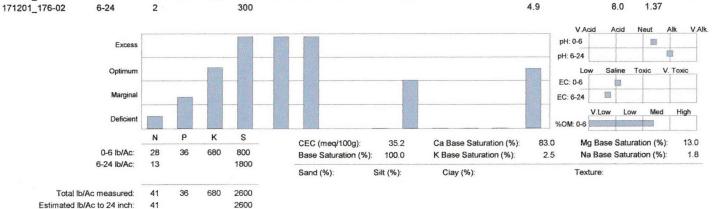
550

BC

Na

ppm 140

	В	Cu	Fe	Mn	Zn	CI	pН	EC	OM
1	ppm	ppm	ppm	ppm	ppm	ppm		dS/m	%
		0.8				8.1	7.4	2.14	5.6
						4.0	0.0	1 27	



Comments: PREVIOUS CROP: CANOLA **Preliminary Report** Some analysis is outstanding * Bicarbonate-Extractable (Olsen) Phosphate







MMPP - Variety Yield Data Browser

Tip: Click or touch the 'X' (at right) in these tip balloons to hide them permanently. Tip: Click or touch the button below to select Municipalities or MASC Risk Areas. Municipalities Tip: Click or touch in the select boxes (below) to select at least one item from each list. Click or touch the touch the touch in the select boxes (below) to select at least one item from each list. Click or touch the touch the touch to clear all selected items. LORNE Select Crop(s) Tip: If more than one crop is selected, the Yield Variety Data will be returned, but 'Top Varieties by Acres' and 'Top Varieties by Yield' charts won't be generated. RED SPRING WHEAT Select Varieties All Varieties Select Year Range		es or MASC Risk Are	as		
Municipalities Tip: Click or touch in the select boxes (below) to select at least one item from each list. Click or touch the to icon to clear all selected items. LORNE LORNE Tip: If more than one crop is selected, the Yield Variety Data will be returned, but 'Top Varieties by Acres' and 'Top Varieties by Yield' charts won't be generated. RED SPRING WHEAT All Varieties All Varieties	Tip: Click or touch the "	X' (at right) in these tip balloo	ons to hide them permanently.		×
Tip: Click or touch in the select boxes (below) to select at least one item from each list. Click or touch the circumstance items. LORNE LORNE Tip: If more than one crop is selected, the Yield Variety Data will be returned, but 'Top Varieties by Acres' and 'Top Varieties by Yield' charts won't be generated. RED SPRING WHEAT Gelect Varieties All Varieties	Tip: Click or touch the b	outton below to select Munici	ipalities or MASC Risk Areas.		×
LORNE Gelect Crop(s) Tip: If more than one crop is selected, the Yield Variety Data will be returned, but "Top Varieties by Acres' and "Top Varieties by Yield" charts won't be generated. RED SPRING WHEAT Gelect Varieties All Varieties			Municipalities		
Tip: If more than one crop is selected, the Yield Variety Data will be returned, but 'Top Varieties by Acres' and 'Top Varieties by Yield' charts won't be generated. RED SPRING WHEAT Select Varieties All Varieties	Tip: Click or touch in th	e select boxes (below) to sel	ect at least one item from each list. Click or to	ch the	×
Tip: If more than one crop is selected, the Yield Variety Data will be returned, but 'Top Varieties by Acres' and 'Top Varieties by Yield' charts won't be generated. RED SPRING WHEAT Select Varieties All Varieties			LORNE	8	
elect Varieties All Varieties	elect Crop(s)				
elect Varieties All Varieties					
All Varieties	Tip: If more than one cr	rop is selected, the Yield Vario	ety Data will be returned, but 'Top Varieties by <i>i</i>	cres' and 'Top Varieties by Yield' charts won't be go	enerated. ×
	Tip: If more than one cr	rop is selected, the Yield Varie			enerated. ×
Select Year Range		rop is selected, the Yield Varie			enerated. X
		rop is selected, the Yield Varie	RED SPRING WHEAT	8	enerated. X
	elect Varieties	rop is selected, the Yield Varie	RED SPRING WHEAT	8	enerated. X
1993 1998 2003 2008 2012	elect Varieties	rop is selected, the Yield Varie	RED SPRING WHEAT	8	enerated. X

Search Summary

147 records returned

1,970 farm varieties grown on **494,457.1** acres

Average Yield

1.544 Tonnes (**56.7** Bushels) per acre

Summary includes aggregate data from 'below minimum tolerance' records

Variety Yield Data

Below Minimum Tolerance' records contain data from fewer than 3 producers or 500 acres, marked as such to retain producer anonymity. Data from these records is included in the Search Summary totals.

First

33

23

8,384.0

5,953.0

1.568 Tonnes

1.565 Tonnes

Previous

Next

Last

Copy to Clipboard

+ 2009

+ 2009

LORNE

LORNE

RED SPRING WHEAT

RED SPRING WHEAT

Showing 1 to 50 of 147 entries

Save as XLS

Year	Risk Area / R.M.	Crop	Variety	Farms	Acres	Yield/acre (Metric)
+ 2009	LORNE	RED SPRING WHEAT	GLENN	4	896.0	2.204 Tonnes
+ 2009	LORNE	RED SPRING WHEAT	CDC GO (BW781)	15	3,506.0	2.058 Tonnes
+ 2008	LORNE	RED SPRING WHEAT	CDC GO (BW781)	24	4,243.0	1.972 Tonnes
+ 2009	LORNE	RED SPRING WHEAT	HARVEST (BW259)	62	17,583.0	1.900 Tonnes
+ 2007	LORNE	RED SPRING WHEAT	CDC GO (BW781)	4	613.0	1.874 Tonnes
+ 2010	LORNE	RED SPRING WHEAT	CDC GO (BW781)	5	1,118.0	1.851 Tonnes
+ 2013	LORNE	RED SPRING WHEAT	HARVEST (BW259)	91	28,479.0	1.850 Tonnes
+ 2014	LORNE	RED SPRING WHEAT	HARVEST (BW259)	90	30,839.0	1.837 Tonnes
+ 2014	LORNE	RED SPRING WHEAT	CARDALE (BW429)	29	4,932.0	1.819 Tonnes
+ 2014	LORNE	RED SPRING WHEAT	AAC BRANDON (BW 932)	4	657.0	1.811 Tonnes
+ 2015	LORNE	RED SPRING WHEAT	CDC PLENTIFUL (PT580)	19	3,147.0	1.810 Tonnes
+ 2008	LORNE	RED SPRING WHEAT	KANE (BW342)	7	1,398.0	1.746 Tonnes
+ 2008	LORNE	RED SPRING WHEAT	HARVEST (BW259)	50	10,422.0	1.722 Tonnes
+ 2015	LORNE	RED SPRING WHEAT	AAC BRANDON (BW 932)	29	6,935.0	1.715 Tonnes
+ 2013	LORNE	RED SPRING WHEAT	CARBERRY (BW874)	76	18,841.0	1.699 Tonnes
+ 2015	LORNE	RED SPRING WHEAT	HARVEST (BW259)	90	28,597.0	1.688 Tonnes
+ 2010	LORNE	RED SPRING WHEAT	GLENN	19	4,018.0	1.686 Tonnes
+ 2010	LORNE	RED SPRING WHEAT	HARVEST (BW259)	81	26,691.0	1.666 Tonnes
+ 2014	LORNE	RED SPRING WHEAT	CDC UTMOST (BW 883)	3	1,133.0	1.659 Tonnes
+ 2015	LORNE	RED SPRING WHEAT	CARBERRY (BW874)	21	5,627.0	1.638 Tonnes
+ 2013	LORNE	RED SPRING WHEAT	GLENN	8	1,770.0	1.632 Tonnes
+ 2009	LORNE	RED SPRING WHEAT	KANE (BW342)	62	9,450.0	1.621 Tonnes
+ 2014	LORNE	RED SPRING WHEAT	CARBERRY (BW874)	39	9,292.0	1.616 Tonnes
+ 2015	LORNE	RED SPRING WHEAT	CARDALE (BW429)	32	7,023.0	1.602 Tonnes
+ 2012	LORNE	RED SPRING WHEAT	CDC UTMOST (BW 883)	5	727.0	1.601 Tonnes
+ 2008	LORNE	RED SPRING WHEAT	AC BARRIE (BW 661)	25	6,016.0	1.580 Tonnes
+ 2014	LORNE	RED SPRING WHEAT	KANE (BW342)	12	2,836.0	1.575 Tonnes

AC DOMAIN (BW 148)

AC BARRIE (BW 661)



MMPP - Variety Yield Data Browser

elect Municipalities or MASC Risk Areas
Tip: Click or touch the 'X' (at right) in these tip balloons to hide them permanently.
Tip: Click or touch the button below to select Municipalities or MASC Risk Areas.
Municipalities
Tip: Click or touch in the select boxes (below) to select at least one item from each list. Click or touch the 💿 icon to clear all selected items.
LORNE
elect Crop(s)
Tip: If more than one crop is selected, the Yield Variety Data will be returned, but 'Top Varieties by Acres' and 'Top Varieties by Yield' charts won't be generated.
OATS
elect Varieties
All Varieties
elect Year Range
1993 1998 2003 2008 2012
2007 to 2016

Search Summary

69 records returned

302 farm varieties grown on 31,626.0 acres

Average Yield

1.600 Tonnes (103.7 Bushels) per acre

Summary includes aggregate data from 'below minimum tolerance' records

Variety Yield Data

Below Minimum Tolerance' records contain data from fewer than 3 producers or 500 acres, marked as such to retain producer anonymity. Data from these records is included in the Search Summary totals.

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Showing 1 to 50 of 69 entries

Year	Risk Area / R.M.	Crop	Variety	Farms	Acres	Yield/acre (Metric)
+ 2015	LORNE	OATS	SUMMIT (OT 2046)	6	1,082.0	2.253 Tonnes
+ 2016	LORNE	OATS	FURLONG (OT2009)	3	640.0	1.992 Tonnes
+ 2016	LORNE	OATS	SUMMIT (OT 2046)	6	896.0	1.983 Tonnes
+ 2009	LORNE	OATS	FURLONG (OT2009)	13	1,830.0	1.782 Tonnes
+ 2014	LORNE	OATS	SOURIS	9	660.0	1.723 Tonnes
+ 2013	LORNE	OATS	FURLONG (OT2009)	11	1,124.0	1.690 Tonnes
+ 2008	LORNE	OATS	FURLONG (OT2009)	29	3,870.0	1.671 Tonnes
+ 2007	LORNE	OATS	FURLONG (OT2009)	33	3,626.0	1.608 Tonnes
+ 2007	LORNE	OATS	RONALD (OT296)	9	766.0	1.591 Tonnes
+ 2010	LORNE	OATS	FURLONG (OT2009)	13	1,310.0	1.565 Tonnes
+ 2014	LORNE	OATS	FURLONG (OT2009)	10	1,852.0	1.560 Tonnes
+ 2015	LORNE	OATS	SOURIS	11	878.0	1.530 Tonnes
+ 2011	LORNE	OATS	FURLONG (OT2009)	18	2,778.0	1.485 Tonnes
+ 2012	LORNE	OATS	FURLONG (OT2009)	19	2,307.0	1.170 Tonnes
+ 2007	LORNE	OATS	AC ASSINIBOIA (OT 275)	Below	Minimum	Tolerance
+ 2007	LORNE	OATS	AC MORGAN	Below	Minimum	Tolerance
+ 2007	LORNE	OATS	MORTON	Below	Minimum	Tolerance
+ 2007	LORNE	OATS	NO VAR	Below	Minimum	Tolerance
+ 2007	LORNE	OATS	PINNACLE	Below	Minimum	Tolerance
+ 2007	LORNE	OATS	TRIPLE CROWN (OT 541)	Below	Minimum	Tolerance
+ 2008	LORNE	OATS	AC ASSINIBOIA (OT 275)	Below	Minimum	Tolerance
+ 2008	LORNE	OATS	AC MORGAN	Below	Minimum	Tolerance
+ 2008	LORNE	OATS	HIFI	Below	Minimum	Tolerance
+ 2008	LORNE	OATS	JORDAN (OT2027)	Below	Minimum	Tolerance
+ 2008	LORNE	OATS	LEGGETT (OT2021)	Below	Minimum	Tolerance
+ 2008	LORNE	OATS	PINNACLE	Below	Minimum	Tolerance
+ 2008	LORNE	OATS	RONALD (OT296)	Below	Minimum	Tolerance
+ 2008	LORNE	OATS	TRIPLE CROWN (OT 541)	Below	Minimum	Tolerance
+ 2009	LORNE	OATS	HIFI	Below	Minimum	Tolerance



MMPP - Variety Yield Data Browser

Tip: Click or touch the 'X' (at right	nt) in these tip balloo	ns to hide them permanently.	· · · · · · · · · · · · · · · · · · ·
Tip: Click or touch the button be	elow to select Municip	palities or MASC Risk Areas.	,
		Municipalities	
Tip: Click or touch in the select	boxes (below) to sele	ect at least one item from each list. Click or touch the 🕡 icon to clear all selec	cted items.
		LORNE	
elect Crop(s) Tip: If more than one crop is sel	ected, the Yield Varie	ety Data will be returned, but 'Top Varieties by Acres' and 'Top Varieties by Yield'	charts won't be generated.
-	lected, the Yield Varie	ety Data will be returned, but 'Top Varieties by Acres' and 'Top Varieties by Yield' ARGENTINE CANOLA	charts won't be generated.
-	lected, the Yield Varie		charts won't be generated.
Tip: If more than one crop is sel	ected, the Yield Varie		charts won't be generated.
Tip: If more than one crop is sel	ected, the Yield Varie	ARGENTINE CANOLA	charts won't be generated.

Search Summary

413 records returned

3,045 farm varieties grown on **610,211.7** acres

Average Yield

0.961 Tonnes (**42.4** Bushels) per acre

Summary includes aggregate data from 'below minimum tolerance' records

Variety Yield Data

Below Minimum Tolerance' records contain data from fewer than 3 producers or 500 acres, marked as such to retain producer anonymity. Data from these records is included in the Search Summary totals.

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Showing 1	to 50 of 413 entries			First	Previous	Next Last
Year	Risk Area / R.M.	Сгор	Variety	Farms	Acres	Yield/acre (Metric)
+ 2014	LORNE	ARGENTINE CANOLA	L140P (INVIGOR) (LT)	5	1,075.0	1.260 Tonnes
+ 2008	LORNE	ARGENTINE CANOLA	5440 (INVIGOR) PHS04-690 (LT)	16	2,502.0	1.254 Tonnes
+ 2015	LORNE	ARGENTINE CANOLA	L156H (INVIGOR HEALTH) (LT)	8	2,001.0	1.252 Tonnes
+ 2015	LORNE	ARGENTINE CANOLA	L140P (INVIGOR) (LT)	17	3,790.0	1.225 Tonnes
+ 2008	LORNE	ARGENTINE CANOLA	8440 (INVIGOR) PHS04-781 (LT)	13	2,990.0	1.223 Tonnes
+ 2009	LORNE	ARGENTINE CANOLA	8440 (INVIGOR) PHS04-781 (LT)	33	9,490.0	1.201 Tonnes
+ 2013	LORNE	ARGENTINE CANOLA	74-44 BL (DEKALB) (RT)	4	927.0	1.197 Tonnes
+ 2014	LORNE	ARGENTINE CANOLA	L261 (INVIGOR) (LT)	5	1,467.0	1.187 Tonnes
+ 2009	LORNE	ARGENTINE CANOLA	5440 (INVIGOR) PHS04-690 (LT)	36	6,134.0	1.183 Tonnes
+ 2013	LORNE	ARGENTINE CANOLA	6060 RR (BRETT YOUNG) (RT)	4	817.0	1.176 Tonnes
+ 2009	LORNE	ARGENTINE CANOLA	5020 (INVIGOR) RHY01/597 (LT)	36	6,559.0	1.169 Tonnes
+ 2008	LORNE	ARGENTINE CANOLA	46P50 (PIONEER) 03N322R (RT)	5	1,356.0	1.164 Tonnes
+ 2015	LORNE	ARGENTINE CANOLA	SY4135 (SYNGENTA) (RT)	5	900.0	1.164 Tonnes
+ 2010	LORNE	ARGENTINE CANOLA	8440 (INVIGOR) PHS04-781 (LT)	42	12,459.0	1.159 Tonnes
+ 2013	LORNE	ARGENTINE CANOLA	L154 (INVIGOR) (LT)	5	814.0	1.157 Tonnes
+ 2010	LORNE	ARGENTINE CANOLA	5770 (INVIGOR) (LT)	15	2,768.0	1.154 Tonnes
+ 2013	LORNE	ARGENTINE CANOLA	L130 (INVIGOR) (LT)	36	9,643.0	1.155 Tonnes
+ 2008	LORNE	ARGENTINE CANOLA	5070 (INVIGOR) RHY01-1997 (LT)	9	1,844.0	1.150 Tonnes
+ 2015	LORNE	ARGENTINE CANOLA	L120 (INVIGOR) (LT)	14	1,683.0	1.148 Tonnes
+ 2015	LORNE	ARGENTINE CANOLA	V22-1 (VICTORY) (RT)	4	727.0	1.146 Tonnes
+ 2009	LORNE	ARGENTINE CANOLA	5030 (INVIGOR) RHY01-403 (LT)	13	3,772.0	1.141 Tonnes
+ 2008	LORNE	ARGENTINE CANOLA	5020 (INVIGOR) RHY01/597 (LT)	59	12,179.0	1.139 Tonnes
+ 2013	LORNE	ARGENTINE CANOLA	5440 (INVIGOR) PHS04-690 (LT)	20	4,355.0	1.139 Tonnes
+ 2014	LORNE	ARGENTINE CANOLA	L252 (INVIGOR) (LT)	24	4,230.0	1.137 Tonnes
+ 2013	LORNE	ARGENTINE CANOLA	L120 (INVIGOR) (LT)	21	4,100.0	1.134 Tonnes
+ 2013	LORNE	ARGENTINE CANOLA	L156H (INVIGOR HEALTH) (LT)	8	1,395.0	1.135 Tonnes
+ 2015	LORNE	ARGENTINE CANOLA	1020 RR (NEXERA) (RT)	3	890.0	1.134 Tonnes
+ 2015	LORNE	ARGENTINE CANOLA	6056 CR (BRETT YOUNG) (RT)	7	1,692.0	1.134 Tonnes
+ 2013	LORNE	ARGENTINE CANOLA	1990 (CANTERRA) (RT)	19	2,701.0	1.129 Tonnes