

LEGEND:

- LIVESTOCK OPERATIONS L0

- SPREAD FIELDS (AGREEMENT)

- RESIDENCE

- NEAREST NEIGHBOR (APPROX 792')

- 3km NOTIFICATION AREA

FOR THE PUBLIC CONDITIONAL USE HEARING



ROJECT	NAME
	CANADA SHEEP & LAMB
	ROCKWOOD FARMS

LAND USE & SPREAD FIELD MAP

N/A

R. FLORES SOUTH-MAN ENGINEERING

DATE DRAWN

SEPTEMBER 2017

DRAWING SCALE N.T.S. SHEET NUMBER

SP-2

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PROJECT NAME	BUILDING AREA			
CANADA SHEEP & LAMB ROCKWOOD FARMS	N/A			
SHEET TITLE TRUCK HAUL ROUTE	ORANN BY R. FLORES SOUTH-MAN ENGINEERING			
DATE DRAWN	DRAWING SCALE	SHEET NUMBER		
SEPTEMBER 2017	N.T.S.	CD 0		

THIS DRAWING IS THE PROPERTY OF SOUTH-MAN ENGINEERING, WINNIPEG, MANITOBA, CANADA.

SP-3



Desalegn Edossa <desalegn.southmaneng@gmail.com>

Canada Sheep and Lamb - Rockwood

1 message

Friesen, Chris (SD) < Chris.Friesen@gov.mb.ca> Thu, Jun 8, 2017 at 9:07 AM To: "desalegn.southmaneng@gmail.com" < desalegn.southmaneng@gmail.com>

Desalegn

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/

----Original Message-----

From:

Sent: May-30-17 3:15 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 Tuesday, May 30, 2017 at 15:15:10

DocumentID: Manitoba_Conservation

Project Title: Canada Sheep and Lamb - Rockwood

Date Needed: 2017/06/07

Name: Desalegn Edossa

Company/Organization: Soth-Man Engineering

Address: 15-1599 Dugald Rd

City: Winnipeg

Province/State: MB

Phone: (204) 6689652

Email: desalegn.southmaneng@gmail.com

Project Description: The information will be used to determine the impacts on species by a proposed livestock operation - production of 8,000 ewes (1,600 AU).

Information Requested: Would like to know if there are any species at risk or endangered in region that may be impacted by the proposed livestock operation.

Format Requested: Microsoft Word Document as email attachment.

Location: SE and NE of 5-13-3E in the RM of Rockwood

action: Submit

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		-		-
	Beef cows including associated livestock	1.25		-		-
Beef	Backgrounder	0.5		-		-
beei	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		-		-
Diese	Sows - farrow to nursery (51 lbs)	0.313		-		-
Pigs	Boars (artificial insemination units)	0.2		-		-
	Weanlings, Nursery (11-51 lbs)	0.033		-		-
	Growers / Finishers (51-249 lbs)	0.143		-		-
	Broilers	0.005		-		-
	Roasters	0.01		-		-
Chickens	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		-		-
Sheep	Ewes	0.2		-		-
эпеер	Feeder lambs	0.063		-		-
Other Livestock	Type:			-		•
Other Livestock	Type:			-		-
			Total Current:	-	Total Proposed:	-

Footnotes:

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



Alternate estimate of animal units (AU) for ewes:

The following conversion factors were used in consultation with MAFRD:

6 ewes = 1 AU

11 replacement ewes = 1 AU

	Exi	Existing		psosed
Livestock	Animal #	AU	Animal #	AU
Ewes			8000	1333
Rams				
Lambs				
Replacement ewes (Avg wt 45 kg, 11 hd/AU)	2000	182	0	0
Total		182		1333

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.

Pig/Operation Type	Storage Type	Volatilization	Animal Numbers (Places)	Weight In (Ib)
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%		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	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
(lb)	(lb)	(days)	(days)	(kg/day)	%	(lb/yr/herd)	%	(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%	0	0.46%	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
n/a	n/a	365	1	n/a	n/a	0	n/a	0

Species	Туре	Storage Type	Volatilization	Animal Numbers	Weight In (lb)
Cow Calf	Mature Cows (>2 years old)	Field Storage	40%	0	1375
Cow Calf	Bred Heifer (14 mo - 2 years)	Field Storage	40%	0	926
Cow Calf	Replacement Heifers (7 mo-14 mo)	Field Storage	40%	0	581
Cow Calf	Unweaned Calves (0-7 mo)	Field Storage	40%	0	86
Cow Calf	Bulls	Field Storage	40%	0	2100
Cow Calf	Mature Cows and Bred Heifers, plus associated livestock	Field Storage	40%	0	n/a
Feeder	Feedlot Cattle - long keep	Field Storage	40%	0	581
Feeder	Feedlot Cattle - short keep	Field Storage	40%	0	975
Feeder	Backgrounders - pasture	Field Storage	40%	0	793
Feeder	Backgrounders - confined	Field Storage	40%	0	500

Last Revised January 21, 2015

Weight Out (lb)	Average Animal Wt (lb)		Cycles per Year	Rate of Gain (lb/day)	Days Place is Occupied per Year (days)	N Excreted Per Herd Adjusted for Storage N Loss (lb N/yr/herd)	P2O5 Excreted Per Herd Per Year (Ib P2O5/year)
1375	1375	365	1.0		365	0.0	0.0
1238	1082	280	1.0	1.42	280	0.0	0.0
926	754	225	1.0	1.53	225	0.0	0.0
581	334	210	1.0	2.35	210	0.0	0.0
2200	2150	365	1.0		365	0.0	0.0
n/a	n/a	n/a	n/a	n/a	n/a	0.0	0.0
1300	941	240	1.0	2.99	240	0.0	0.0
1300	1138	116	1.0	2.80	116	0.0	0.0
975	884	105	1.0	1.73	105	0.0	0.0
793	647	180	1.0	1.62	180	0.0	0.0

Туре	Storage Type	Volatilization	Animal Numbers
Lactating Cows	Liquid Uncovered Earthen	30%	0
Dry Cows	Liquid Uncovered Earthen	30%	0
Calves, 0-3 months	Liquid Uncovered Earthen	30%	0
Calves, 4-13 months	Liquid Uncovered Earthen	30%	0
Replacements, >13 months	Liquid Uncovered Earthen	30%	0
Mature Cows, plus associated livestock	Liquid Uncovered Earthen	30%	0

Last revised August 20, 2014

Weight In	Weight Out	Average Animal Wt	Days on Feed per Cycle (days)	Number of Cycles per Year	N Excreted Per Herd Adjusted for Storage N Loss (lb/yr/herd)	P2O5 Excreted per Herd Per Year (lb/yr/herd)
1400	1440	1420	365	1	0	0
1440	1440	1440	365	1	0	0
90	275	183	365	1	0	0
275	810	543	365	1	0	0
810	1250	1030	365	1	0	0
n/a	n/a	n/a	n/a	n/a	0	0

Sheep/Operation Type	Storage Type	Volatilization	Animal Numbers	Weight In	Weight Out	Ave Weight	Days on Feed	Cycles per Year	N Excreted per Flock adjusted for Loss lb/flock/yr	P2O5 Excreted Per Flock Ib/flock/yr
Ewes	Field Storage	40%	8000	120	170	145	365	1	114297	67859
Replacement Ewes	Field Storage	40%	0	45	80	63	210	1	0	0
Rams	Field Storage	40%	100	100	200	150	365	1	1478	877
Lambs	Field Storage	40%	4558	8	45	27	70	1.4	3195	1897
Ewes, plus assoc livestock	Field Storage	40%		n/a	n/a	n/a	n/a	n/a	0	0
Feeder	Field Storage	40%	0	45	100	73	365	1	0	0

Species / Commodity	Type of Operation	Storage Type	Volatilization
Chickens	Broilers	Field Storage	40%
Chickens	Broiler Breeder Pullets	Field Storage	40%
Chickens	Broiler Breeder Hens	Field Storage	40%
Eggs	Layer Pullets	Liquid Covered	10%
Eggs	Layer Hens	Liquid Covered	10%
Eggs	Breeder Pullets	Liquid Covered	10%
Eggs	Breeder Hens	Liquid Covered	10%
Turkey	Broiler Hens (0-9 wks)	Field Storage	40%
Turkey	Hens (0-11 wks)	Field Storage	40%
Turkey	Heavy Hens (0-14 wks)	Field Storage	40%
Turkey	Light Toms (0-12 wks)	Field Storage	40%
Turkey	Toms (0-13 wks)	Field Storage	40%
Turkey	Heavy Toms (0-15 wks)	Field Storage	40%
Turkey	Breeding Hen Growers (0-30 wks)	Field Storage	40%
Turkey	Breeding Hens (30-60 wks)	Field Storage	40%
Turkey	Breeding Tom Grower (0-18 wks)	Field Storage	40%
Turkey	Breeding Tom Grower (0-30 wks)	Field Storage	40%
Turkey	Breeding Tom (30-60 wks)	Field Storage	40%

Bird Places	Weight In	Weight Out	Average Weight	Days on Feed	Cycles per Year	N Excreted Adjusted for N Loss Ib/flock/yr	P2O5 Excreted lb/flock/yr
0	0.05	4.36	2.20	33	7.4	0	0
0	0.05	4.40	2.23	140	2	0	0
0	4.40	8.67	6.53	273	1	0	0
0	0.05	3.04	1.54	133	2	0	0
0	3.03	3.74	3.38	355	1	0	0
0	0.05	3.04	1.54	133	2	0	0
0	3.03	3.74	3.38	351	1	0	0
0	0.06	12.39	6.22	63	4	0	0
0	0.06	16.46	8.26	77	3.5	0	0
0	0.06	21.19	10.62	98	3	0	0
0	0.06	21.19	10.62	84	3	0	0
0	0.06	26.84	13.45	91	3	0	0
0	0.06	30.29	15.18	105	2.5	0	0
0	0.06	26.95	13.51	210	1	0	0
0	26.95	24.95	25.95	210	1	0	0
0	0.06	33.92	16.99	126	2	0	0
0	0.06	50.89	25.47	210	1	0	0
0	50.89	61.86	56.38	210	1	0	0

	Rem	oval	Uptake					Rem	noval	Uptake
Crop	P2O5	N	N	Units	Yield	Units	Acreage	P2O5	N	N
								(lb)	(lb)	(lb)
Alfalfa	13.8	58	58	lb/ton	2.366	ton/ac	736	24031	101000	101000
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		bu/ac		-	-	-
Corn Grain	0.44	0.97	1.53	lb/bu		bu/ac		-	-	-
Corn Silage	12.7	31.2	31.2	lb/ton	3.96	tons/ac	245	12322	30270	30270
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		bu/ac		-	-	-
Wheat - Winter	0.51	1.04	1.35	lb/bu		bu/ac		-	-	-
						Sub Total	981	36353	131270	131270
			Estimate	d Average Ro	emoval/Up	take (lb/ac)		37.1	133.8	133.8
					Addi	tional Acres				
Crop Planned on Additional Acres										
					To	otal Acreage	981			
Note:	Additional a	cres inclu	de acres foi	which crop	removal or	soil data is I	imited or u	navailable		
11010.			ac acres 101	op			rca or ar	.a.anabici		

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	0	0
	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)	0	0
	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	114297	67859
	Replacement Ewes	0	0
	Rams	1478	877
	Lambs	3195	1897
	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		70633

Note: 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	118971			
P2O5	70633			
Crop Nutrient Use	lb/ac			
Nitrogen Uptake	133.8			
P2O5 Removal	37.1			
Land Base Requirements	acres			
Acres for Nitrogen Uptake	889			
Acres for 2 x P2O5 Removal	953			
Acres for 1 x P2O5 Removal	1906			

			Daily N	Manure Production		Production Period	Number of		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)	Animals 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				-	
-			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				-	
iivootooky		.000	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				-	
Beef	Backgrounder (200 day)	pg 117, FPGs	Solid	0.73				-	
Deci	Summer pasture / replacement heifers	for 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				-	0.0
			Yearly Manure Produ Default Manure Production (ft³/year/bird space)		uction		Number of Birds ³ (Capacity)	Total Manure Volume (ft ³) (F/365xGxH)	Total Manure Volume
Animal Type	Type of Operation				Operation Manure Production ¹ (ft ³ /year/bird space)	Production Period ² (Days)			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.11. 0 05		1.16				-	
Chickens	Layers – cage ⁸	Table 3, pg 85, FPGs for Poultry		2.33				-	0.0
Cilickella	Layers – floor 7	2000		1.68				-	
	Layers – solid pack ⁹	2000						-	
	Pullets – cage ⁸			0.71				-	0.0
	Pullets – floor ⁶			0.75				-	
	Pullets – solid pack 9							-	
	Broilers ⁶	Table 3, pg 85,		2.83				-	
Turkeys	Heavy toms ⁶	FPGs for Poultry	<u>'</u>	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:

This spread sheet does not account for sheep. Based on historical manure handlings, the annual manure production (feces and straw) is estimated to be 0.95 tons/ewe.

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

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

One-third litter floor, two-thirds slatted floor. Manure and litter removed from barn at 40% moisture content, with a density of 25 lb/fd

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

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.

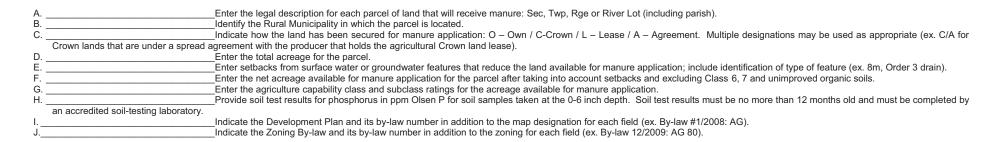


MANURE APPLICATION FIELD CHARACTERISTICS TABLE

	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	S1/2 4-13-3E	Rockwood	Α	260	No feature	260	4N; 3N		BYLAW NO. 03/10: A	BYLAW NO. 17/09: AG
2	NE 1-13-2E	Rockwood	Α	160	3m: Property line and watercourse	150	3N; 4N; 3NW		BYLAW NO. 03/10: A	BYLAW NO. 17/09: AG
3	N1/2 31-12-3E	West St. Paul	Α	240	No feature	240	3NW; 3N		BYLAW NO. 122: AGRICULTURAL AREA 1	BYLAW NO. 2/99P: A80
4	SE 31-12-3E	West St. Paul	Α	160	3m: Property line and water	150	3NW-3N		BYLAW NO. 122: AGRICULTURAL AREA 1	BYLAW NO. 2/99P: A80
5	N & S of W1/2 & E1/2 OF 20-13-3E	Rockwood	Α	400	3m: Property line and water	392	3NW		BYLAW NO. 03/10: A	BYLAW NO. 17/09: AG
6	SE 24-13-3E	St. Andrews	Α	135	3m: Property line, shrubs and residence	105	2W-3W		BYLAW NO. 190/08	BYLAW NO. 4066: A80
7	W1/2 19-13-3E	Rockwood	Α	135	No feature	135	3NW		BYLAW NO. 03/10: A	BYLAW NO. 17/09: AG
8	SE 6-13-3E	Rockwood	Α	80	No feature	80	4N		BYLAW NO. 03/10: A	BYLAW NO. 17/09: AG
9	NE 30-12-3E	West St. Paul	Α	80	3m: Property line; water and shrubs	67	3NW		BYLAW NO. 122: AGRICULTURAL AREA 1	BYLAW NO. 2/99P: A80
10	ALL OF 17-13-3E	Rockwood	Α	600	No feature	600	3NW; 4N-3W		BYLAW NO. 03/10: A	BYLAW NO. 17/09: AG
11	N1/2 18-13-3E	Rockwood	Α	320	3m: Property line and shrubs	296	3NW		BYLAW NO. 03/10: A	BYLAW NO. 17/09: AG
12	SE 18-13-3E	Rockwood	Α	80	3m: Property line	79	3NW		BYLAW NO. 03/10: A	BYLAW NO. 17/09: AG
13	NE 5-13-3E	Rockwood	Α	70	No feature	70	4N		BYLAW NO. 03/10: A	BYLAW NO. 17/09: AG
14										
15										
16										
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20				•						

Total Net Acreage for Manure Application: 2,624

Alternate lands without soil test results





MANURE APPLICATION FIELD CHARACTERISTICS TABLE

	Α	В	С	D	Е	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	S1/2 of NW 5-13-3E	Rockwood	Α	80	3m: Property line	78	4N	6	BYLAW NO. 03/10: A	BYLAW NO. 17/09: AG
2	S1/2 of SW 9-13-3E	Rockwood	Α	80	3m: Property line and residence	78	3N; 4N; 2W	13	BYLAW NO. 03/10: A	BYLAW NO. 17/09: AG
3	SE 21-13-3E	Rockwood	Α	160	3m: Property line	158	3NW	23	BYLAW NO. 03/10: A	BYLAW NO. 17/09: AG
4	N1/2 of NW 6-13-3E	Rockwood	Α	85	3m: Property line and residence	83	4N	4	BYLAW NO. 03/10: A	BYLAW NO. 17/09: AG
5	NE 28-13-3E	Rockwood	Α	152	3m: Property line and roadside ditch	150	3NW; 3N-5N-3N	33	BYLAW NO. 03/10: A	BYLAW NO. 17/09: AG
6	S1/2 of NW 32-12-3E	West St. Paul	Α	80	3m: Property line and roadside ditch	78	2W	25	BYLAW NO. 122: AGRICULTURAL AREA 1	BYLAW NO. 2/99P: A80
7	SW 32-12-3E	West St. Paul	Α	140	3m: Property line and residence	138	2W	16	BYLAW NO. 122: AGRICULTURAL AREA 1	BYLAW NO. 2/99P: A80
8	SW 33-12-3E	West St. Paul	Α	155	3m: Property line and roadside ditch	153	2W; 3W	17	BYLAW NO. 122: AGRICULTURAL AREA 1	BYLAW NO. 2/99P: A80
9	S1/2 of SE 5-13-3E	Rockwood	Α	65	3m: Property line	65	3N; 4N	4	BYLAW NO. 03/10: A	BYLAW NO. 17/09: AG
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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 appropriately a supervision of the contract	priate (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, Or	der 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	t be completed by
	an accredited soil-testing laboratory.	
l	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

	Α	В	С	D	Е	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
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	Crown lands that are under a spread agreement with the producer that holds the agricultural Crown land lease).	
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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).	

	PATRICK (** Please print VID & EMM Y Please print	BYLE S	ignature de la constitución de l	Herea Herea	DING AGR fter referred to as: andowner" or and Renter*		tor"
Addition	of this agreeme	al agreement for ag	5 ricultural inputs and	d Acts and A	beginning at the a gulations implicit to this ag Ponter	bove date.	n page 2.
	s selected as po			nanure Area e	ivailable for spreading tusive of setbacks see p. 2)	Cropping Intentions	Preferred Application Time
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Manure Spreading Agreement - 1

Manure Management and Planning in Manitoba

Between: PATRICK (41	M fall		fter referred to as	"Livestock Opera	itor"
. Please print	Signature	Herea	fter referred to as:		
And: Kelroe Farm	ns 11/1/1/1/1	0 1	Landowner" or		
Please print	Sign ture	person.	Land Renter*		
	6.1.7			and the second s	A 444 A 444.
Date:	eft /				
The dumling of this agreement	is of 5	vears,	beginning at the a	bove date.	
Additional terms of this contracted a	greenest for explorational inputs and	Acts and m	gulations implicit to this ag	esment are presented or	п роде 2.
Responsibilities of the	l endowner or the	f and	Renter		
Land Parcels selected as poter	Mal fields to receive f	anure			
	(Check one) Hominel size		ivaliable for sprezding	Cropping Intentions	Preferred
	wared Rented (coms)		distive of spidecks see p. 2)		Application Trine
NW5-18-3E	V	78		CORN	fail
Ski 9-13-38	V	78		CORN	1/
SE 21-13-3E		158		RORN	- N
MW6-13-3E	LL	83		1000	
The Landowner or Land Rente	r: (Check where applica	ble/pro	posed)		
"I will keen this document and am	other related records in h	is files;			
Towill notify the Limstock Operati	or of the dates those fields	will be a	available for spreading	g;	
The same to purchase manure mitt	iant at a rate of S	per	C) 1000 gal or C to	onne, conditional	to manure
hains and with the method	and time as specified below	w by the	Livestock Uperator;		
Ci will incorporate manure within	48 hours of broadcast appl	ications i	f agreed to as part of	f the manure appli	ication method
(below).				and the second second	
Responsibilities of the	Livestock Operato	r			
Field Application Details		1			
Time of Application	☐ Spring	□ Sun	nmer 🖫 Fall		
Time of Application	☐ Spring ☐ Broadcast			te within 48 hours	
Time of Application Application method	☐ Spring ☐ Broadcast ☐ Injection	□ 8ro	nmer I Fall adcast and incorpora gation/sprinkler	te within 48 hours	
Application method	3 Broadcast	□ 8ro	adcast and incorpora	te within 48 hours	
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Application method Applicator Livestock Operator Custom applicator Anticipated Manure Applicati The Livestock Operator: (Cher Will keep track of these records Will calculate the manure applicati Will calculate the manure application of the soil test recommendate in general soil fertility reconstruction of the soil test recommendate in general soil fertility reconstruction of the soil test recommendate in general soil fertility reconstruction of the soil test recommendate in the	ame of applicator: on Starting Date: ck where applicable/pro the will not disclose their g and these results will be in cation rate for each field o strong for plant nitrogen re strong for plant nitrogen re the strong for plant phosphorus mmendations as per the Sc eef/Dain/Hog/Poultry Prod ion for the manure spreadi the Land Renter of change	posed) m without made availade availant the barquiremen in Fertility ucers in Ing equipms in anticessional assional a	adcast and incorporal gation/sprinkler T C t the consent of the lable to both the Lansis of (check only one to or ents or ents) Guide (Manitoba Agmanitoba series ment; ilpated dates and rational grologist, along with	BD CT ZC Landowner and the endowner and the La a): riculture and Food es of application in field map(s) high	e Land Renter; Land Renter; and Renter; or the Farm In volume and lighting
Application method Applicator Livestock Operator Custom applicator Anticipated Manure Applicati The Livestock Operator: (Chere Will keep track of these records Will manure analysis ter Will calculate the manure applicati Othe soil test recommende In the soil test recommende In the soil test recommende In general soil fertility recommende Will provide a proof of calibrat Will will notify the Landowner and crop nutrient (N, P, K); Will have a manure management	ame of applicator: on Starting Date: ck where applicable/pro the will not disclose their g and these results will be in cation rate for each field o strong for plant nitrogen re strong for plant nitrogen re the strong for plant phosphorus mmendations as per the Sc eef/Dain/Hog/Poultry Prod ion for the manure spreadi the Land Renter of change	posed) m without made availade availant the barquiremen in Fertility ucers in Ing equipms in anticessional assional a	adcast and incorporal gation/sprinkler T C t the consent of the lable to both the Lansis of (check only one to or ents or ents) Guide (Manitoba Agmanitoba series ment; ilpated dates and rational grologist, along with	BD CT ZC Landowner and the endowner and the La a): riculture and Food es of application in field map(s) high	e Land Renter; Land Renter; and Renter; or the Farm In volume and lighting
Application method Applicator Livestock Operator Custom applicator Anticipated Manure Applicati The Livestock Operator: (Cher Will keep track of these records Will calculate the manure applicati Will calculate the manure application of the soil test recommendate in general soil fertility reconstruction of the soil test recommendate in general soil fertility reconstruction of the soil test recommendate in general soil fertility reconstruction of the soil test recommendate in the	ame of applicator: on Starting Date: ck where applicable/pro the will not disclose their g and these results will be in cation rate for each field o strong for plant nitrogen re strong for plant nitrogen re the strong for plant phosphorus mmendations as per the Sc eef/Dain/Hog/Poultry Prod ion for the manure spreadi the Land Renter of change	posed) m without made availade availant the barquiremen in Fertility ucers in Ing equipms in anticessional assional a	adcast and incorporal gation/sprinkler The consent of the lating the consent of the Landie to both the Landie to both the Landie to both the Landie to both the Landie of the consents or ments or ments of the consents of t	BD Compared and the downer and the Landowner and the Landowner and the Landowner and Food as of application in field map(s) high enter, if applicable	e Land Renter; Land Renter; and Renter; or the Farm In volume and lighting
Application method Applicator Livestock Operator Custom applicator Anticipated Manure Applicati The Livestock Operator: (Cher Will keep track of these records Will calculate the manure applicati Will calculate the manure application of the soil test recommendate in general soil fertility reconstruction of the soil test recommendate in general soil fertility reconstruction of the soil test recommendate in general soil fertility reconstruction of the soil test recommendate in the	ame of applicator: on Starting Date: ck where applicable/pro but will not disclose their g and these results will be st and the results will be stone for plant nitrogen re butions for plant nitrogen re butions for plant nitrogen re butions for plant phosphorus mmendations as per the 5c deef/Dainy/Hog/Poultry Prod ion for the manure spreadi the Land Renter of change int plan prepared by a profe	posed) m without made availade availant the barquiremen in Fertility ucers in Ing equipms in anticessional assional a	adcast and incorporal gation/sprinkler The consent of the lating the consent of the Landie to both the Landie to both the Landie to both the Landie to both the Landie of the consents or ments or ments of the consents of t	BD CT ZC Landowner and the endowner and the La a): riculture and Food es of application in field map(s) high	e Land Renter; Land Renter; and Renter; or the Farm In volume and lighting

1	LIVESTOCK MANURE SPREADING AGREEMENT
-	Between: PATRICK (4 17H Hereafter referred to as "Livestock Operator"
-	Please print Signature Hereafter referred to as:
-	And: Kelroe Farms MACO "Landowner" or
1	Please print Stiniture I Land Renter"
	C. 4.117
	Date: Seft //
	The duration of this agreement is of
-	Responsibilities of the Landowner or the Land Renter
	Land Parcels selected as potential fields to receive manure
	Field Legal location (Chack one) Nominal size Area profitable for spreading Cropping Intentions Preferred
1	Oversed Rented (acros) (acros) effective of sathacks see p. 2) Application Time ALE 29-13-8E L 15D CORN ' Fall
1	
-	5M32-13-2E V 138 CON "
1	SW 33-13-3E 1 153 COLA
-	The Landowner or Land Renter: (Check where applicable/proposed)
	Twill keep this document and any other related records in his files;
1	Will notify the Livestock Operator of the dates those fields will be available for spreading; agrees to purchase manure nutrient at a rate of \$
	being applied with the method and time as specified below by the Livestock Uperator;
	will incorporate manure within 48 hours of broadcast applications if agreed to as part of the manure application method
1	(below).
Ī	Responsibilities of the Livestock Operator
1	Field Application Details
	Time of Application
1	Application method Broadcast Broadcast and incorporate within 48 hours
1	Injection Infigation/sprinkler
1	Applicator .
-	Livestock Operator Custom applicator R Name of applicator: TBD
	Custom applicator Starting Date: Oct 2018
	The Livestock Operator: (Check where applicable/proposed)
	will keep track of these records, but will not disclose them without the consent of the Landowner and the Land Renter;
	Will pay all costs for soil testing and these results will be made available to both the Landowner and the Land Renter; Will carry a manure analysis test and the results will be made available to both the Landowner and the Land Renter;
	It will calculate the manuse application rate for each field on the basis of (check only one):
	1) the soil test recommendations for plant nitrogen requirements or
	It the soil test recommendations for plant phosphorus requirements Cl general soil fertility recommendations as per the Soil Fertility Guide (Manitoba Agriculture and Food) or the Farm
	Practices Guidelines for Beef/Dainy/Hog/Poultry Producers in Manitoba series
	I will provide a proof of calibration for the manure spreading equipment;
-	I will notify the Landowner and the Land Renter of changes in anticipated dates and rates of application in volume and crop nutrient (N. P. K);
	If will have a manure management plan prepared by a professional agrologist, along with field map(s) highlighting
	setbacks to observe; will provide a copy overall manure management plan to the Landowner and the Land Renter, if applicable.
	As and blosine a soby alege menore menodement bear

Hanure Management and Planning in Manitoba

Manure Spreading Agreement - 1



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

SUBMITTED FOR:

SOIL TEST REPORT

FIELD ID **NW 05-13-03E**

SAMPLE ID

FIELD NAME **NW 05-13-03E**

COUNTY

TWP

SECTION QTR ACRES 0

PREV. CROP

SUBMITTED BY: DU4426

RANGE

FOUR OAK AG SOLUTION

31119 RD 27E BOX 131

KLEEFELD, MB ROA 0V0

W _____E

REF # 1908806 BOX # 0

LAB # **NW32622**

Date Sampled 05/25/2017

Canada Sheep & Lamb Farms

Date Received 05/31/2017

Date Reported **5/31/2017**

Nutrient In	The Soil	In	iterp	retati	ion	1	lst C	rop Choic	e	2	nd C	rop Cho	ice	3rd	d Cro	p Cho	oice
		VLow	Low	Med	High		C	orn-Grain			Co	rn-Silage			Soy	beans	
0-6" 6-24"	2 lb/ac 6 lb/ac						YI	ELD GOAL			YIE	LD GOAL			YIELI	GOAL	
0-24	6 ID/ ac	**					1	60 BU			18	Tons			50	BU	
0-24''	8 lb/ac					SU	GGEST	TED GUIDELI	NES	SU	GGEST	ED GUIDEL	INES	SUGO	SESTE	GUIDE	ELINES
Nitrate							В	roadcast			Br	oadcast			Broa	adcast	
						LB/A	ACRE	APPLICA	TION	LB/A	CRE	APPLICA	ATION	LB/A	CRE	APPLIC	CATION
Olsen Phosphorus	6 ppm	*****	****			N	184			N	179			N	***		
Potassium	282 ppm	*****	*****	*****	*****	P ₂ O ₅	117	Broadca	ast	P ₂ O ₅	117	Broade	cast	P ₂ O ₅	76	Broad	dcast
						K ₂ O	10	Band (2x	2) *	K ₂ O	10	Band (2	x2) *	K ₂ O	0		
Chloride						CI				CI				CI			
0-6" 6-24"	120 +lb/ac 360 +lb/ac				* ***** * *****	S	0			S	0			S	0		
Sulfur	•					В				В				В			
Boron								Broadcast	(Trial)			Broadcas	t(Trial)				
Zinc	1.13 ppm	*****	*****	*****	* *	Zn	4	Di Guacase	.()	Zn	4	Di Guacas		Zn	0		
I ron Manganese						Fe				Fe				Fe			
Copper	2 20					Mn				Mn				Mn			
Magnesium	2.28 ppm	*****	*****	*****	* **	Cu	0			Cu	0			Cu	0		
Calcium						Mg				Mg				Mg			
Sodium						Lime				Lime				Lime			
Org.Matter	6.5 %	****	*****	*****	*****							0/ 5	0-/		(T:	- I D:	
Carbonate(CCE)						Soil	рН	Buffer pH		n Exch Capacit	_	% Ba	se Satu % Mg	_	1	Na Na	ige) % H
0-6" 6-24" Sol. Salts	3.65 mmho/cm 4.74 mmho/cm		******		******	0-6"					•	70 Ca	70 1Ag	75 1		Jan	70 11

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. High salt levels may decrease yields in portions of this field. Crop Removal: P2O5 = 64 K2O = 43 AGVISE Broadcast guidelines will build P & K test levels to the high range over several 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. High salt levels may decrease yields in portions of this field. Crop Removal: P2O5 = 65 K2O = 149 A GVISE Broadcast guidelines will build P & K test levels to the high range over several years.

Crop 3: Many crops may respond to a starter application of P & K even on high soil tests. High salt levels may decrease yields in portions of this field. Crop Removal: P205 = 44 K20 = 75 AGVISE Broadcast guidelines will build P & K test levels to the high range over several years. Soybeans may respond to nitrogen on fields testing less than 60 lb/ac with a limited soybean history.



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

SUBMITTED FOR:

SOIL TEST REPORT

FIELD ID **SW 09-13-03E**

SAMPLE ID

FIELD NAME**SW 09-13-03E**

COUNTY

TWP

SECTION QTR ACRES 0

PREV. CROP

SUBMITTED BY: DU4426

RANGE

FOUR OAK AG SOLUTION

31119 RD 27E BOX 131

KLEEFELD, MB ROA OVO

N W _____E

REF # 1908812 BOX # 0

LAB # **NW32627**

Date Sampled 05/25/2017

Canada Sheep & Lamb Farms

Date Received **05/31/2017**

Date Reported 5/31/2017

Nutrient In	The Soil	In	terp	retat	ion	1s	t Cro	p Choic	е	2n	d Cro	p Choic	e	3r	d Cro	p Cho	ice
		VLow	Low	Med	High		Corn	-Grain			Corn-	Silage			Soy	beans	
0-6" 6-24"	232 lb/ac 183 lb/ac						YIELD	GOAL			YIELD	GOAL			YIEL	D GOAL	
0-24	163 10/ 40	*****	*****	*****	*****		160	BU			18	Tons			50	BU	
0-24''	415 lb/ac					SUGO	GESTED	GUIDELII	NES	SUGO	GESTED	GUIDELIN	ES	SUG	GESTE	O GUIDE	LINES
Nitrate							Broa	adcast			Broa	dcast			Bro	adcast	
						LB/A	CRE	APPLICA	TION	LB/A	ACRE	APPLICA ⁻	TION	LB/A	ACRE	APPLI	CATION
Olsen Phosphorus	13 ppm	*****	*****	*****	k**	N	10			N	10			N	***		
Potassium	360 ppm	*****	*****	* ****	*****	P ₂ O ₅	77	Broadc	ast	P ₂ O ₅	82	Broadca	ıst	P ₂ O ₅	48	Broa	dcast
Chloride						K ₂ O	10	Band (2	x2) *	K ₂ O	10	Band (2)	(2) *	K ₂ O	0		
0-6" 6-24"	120 +lb/ac 360 +lb/ac			*****	*****	CI				CI				CI			
Sulfur	300 115/40		*****		*****	S	0			S	0			S	0		
Boron						В				В				В			
Zinc	0.71 ppm	*****	*****	***		Zn	5	Broadc	ast	Zn	5	Broadca	ıst	Zn	2	Broa	dcast
Iron						Fe				Fe				Fe			
Manganese																	
Copper	1.71 ppm	*****	*****	*****	k *	Mn				Mn				Mn			
Magnesium						Cu	0			Cu	0			Cu	0		
Calcium						Mg				Mg				Mg			
Sodium						Lime				Lime				Lime			
Org.Matter	7.1 %	*****	*****	*****	*****			<u> </u>	Cati	ion Excl	hange	% Ba	se Sa	turatio	n (Tvi	oical Ra	nge)
Carbonate(CCE)						Soil p	Н В	uffer pH		Capacit		% Ca	% I		6 K	% Na	% H
0-6" 6-24" Sol. Salts	1.79 mmho/cm 1.34 mmho/cm			*****		0-6" 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 = 64 K2O = 43 AGVISE Broadcast guidelines will build P & K test levels to the high range over several 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 = 65 K2O = 149 A GVISE Broadcast guidelines will build P & K test levels to the high range over several years.

Crop 3: Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 44 K2O = 75 AGVISE Broadcast guidelines will build P & K test levels to the high range over several years.



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

FIELD ID SE 21-13-03E

SAMPLE ID

FIELD NAME SE 21-13-03E

COUNTY

TWP

RANGE

SOIL TEST REPORT

ACRES 0 SECTION QTR

PREV. CROP

SUBMITTED BY: DU4426

W

1908813 BOX # REF #

S

LAB# NW32614

SUBMITTED FOR:

Canada Sheep & Lamb Farms

FOUR OAK AG SOLUTION 31119 RD 27E

BOX 131

KLEEFELD, MB **ROA 0V0**

Date Sampled 05/25/2017

Date Received **05/31/2017**

Date Reported 5/31/2017

0

Ε

Nutrient In	The Soil	In	terp	retat	ion	1	.st C	rop Choic	e	2	nd C	rop Cho	ice	3r	d Cro	p Ch	oice
		VLow	Low	Med	High		Co	orn-Grain			Co	rn-Silage			Soy	beans	
0-6" 6-24"	180 lb/ac 96 lb/ac						YIE	LD GOAL			YIE	LD GOAL			YIELI	O GOAL	
0-24	90 ID/ aC	*****	*****	*****	* *****		1	60 BU			18	Tons			50	BU	
0-24''	276 lb/ac					SUC	GGEST	ED GUIDELI	NES	SU	GGEST	ED GUIDEL	INES	SUGO	GESTE	GUIDI	ELINES
Nitrate							В	roadcast			Br	oadcast			Bro	adcast	
						LB/A	CRE	APPLICA	TION	LB/A	CRE	APPLICA	ATION	LB/A	ACRE	APPLI	CATION
Olsen Phosphorus	23 ppm	*****	*****	*****	* *****	N	10			N	10			N	***		
Potassium	359 ppm	****	*****	*****	* *****	P ₂ O ₅	20	Broadca	ast	P ₂ O ₅	32	Broado	ast	P ₂ O ₅	0		
						K ₂ O	10	Band (2x	2) *	K ₂ O	10	Band (2:	x2) *	K ₂ O	0		
Chloride						CI				CI				CI			
0-6" 6-24"	120 +lb/ac 360 +lb/ac				* ***** * *****	S	0			S	0			S	0		
Sulfur	•					В				В				В			
Boron								Broadcast	(Trial)			Broadcas	t(Trial)				
Zinc	1.16 ppm	*****	*****	*****	* *	Zn	2	Di ou u cu s	.()	Zn	2	Di Guacus	.()	Zn	0		
Iron Manganese						Fe				Fe				Fe			
Copper	4.25					Mn				Mn				Mn			
Magnesium	1.35 ppm	*****	*****	*****	* *	Cu	0			Cu	0			Cu	0		
Calcium						Mg				Mg				Mg			
Sodium						Lime				Lime				Lime			
Org.Matter	5.3 %	****	****	****	***						<u></u>	0/ 5	0-/		(T		
Carbonate(CCE)						Soil	рН	Buffer pH		n Exch Capacit	_	% Ba	se Satu % Mg	_		cal Rar 6 Na	nge) % H
0-6" 6-24" Sol. Salts	1.75 mmho/cm 1.73 mmho/cm			* *****		0-6"						70 Ca	70 PIG	70	7	o Na	7011

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 = 64 K2O = 43 AGVISE Broadcast guidelines will build P & K test levels to the high range over several 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 = 65 K2O = 149 A GVISE Broadcast guidelines will build P & K test levels to the high range over several years.

Crop 3: Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P205 = 44 K20 = 75 AGVISE Broadcast guidelines will build P & K test levels to the high range over several years.



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

SUBMITTED FOR:

SOIL TEST REPORT

FIELD ID **NW 06-13-03E**

SAMPLE ID

FIELD NAME NW 06-13-03E

COUNTY

TWP

SECTION QTR ACRES 0

PREV. CROP

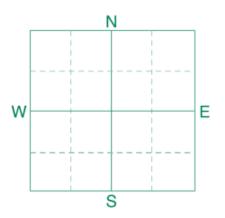
SUBMITTED BY: DU4426

RANGE

FOUR OAK AG SOLUTION

31119 RD 27E BOX 131

KLEEFELD, MB ROA 0V0



REF # 1908814 BOX # 0

LAB # **NW32629**

Date Sampled 05/25/2017

Canada Sheep & Lamb Farms

Date Received 05/31/2017

Date Reported **5/31/2017**

Nutrient In	The Soil	In	terp	retat	ion	15	t Cro	p Choic	e	2n	d Cro	p Choic	е	3r	d Cro	p Cho	ice
		VLow	Low	Med	High		Corn	-Grain			Corn-	Silage			Soy	beans	
0-6" 6-24"	6 lb/ac 9 lb/ac						YIELD	GOAL			YIELD	GOAL			YIEL	O GOAL	
0-24	9 ID/ ac	***					160	BU			18	Tons			50	BU	
0-24''	15 lb/ac					SUG	GESTED	GUIDELIN	NES	SUGO	GESTED	GUIDELIN	IES	SUG	GESTE	GUIDE	LINES
Nitrate							Broa	ıdcast			Broa	dcast			Bro	adcast	
						LB/A	CRE	APPLICA	TION	LB/A	CRE	APPLICA ⁻	TION	LB/A	CRE	APPLI	CATION
Olsen Phosphorus	4 ppm	*****	k			N	177			N	172			N	***		
Potassium	308 ppm	*****	*****	*****	*****	P ₂ O ₅	129	Broadc	ast	P ₂ O ₅	127	Broadca	ast	P ₂ O ₅	84	Broa	dcast
Chloride						K ₂ O	10	Band (2	x2) *	K ₂ O	10	Band (2)	(2) *	K ₂ O	0		
0-6" 6-24"	120 +lb/ac 360 +lb/ac				******	CI				CI				CI			
Sulfur						S	0			S	0			S	0		
Boron						В				В				В			
Zinc	0.57 ppm	*****	****			Zn	8	Broadc	ast	Zn	8	Broadca	ast	Zn	4	Broa	dcast
Iron						Fe				Fe				Fe			
Manganese Copper						Mn				Mn				Mn			
Magnesium	1.92 ppm	****	*****	*****	* **	Cu	0			Cu	0			Cu	0		
Calcium						Mg				Mg				Mg			
Sodium						Lime				Lime				Lime			
Org.Matter	5.7 %	****	*****	****	*****	Linic						0/ 5	6		. / -		
Carbonate(CCE)						Soil	он В	uffer pH		ion Excl	_	% Ba	se Sa % I		· //	oical Ra	nge) % H
0-6" 6-24" Sol. Salts	2.24 mmho/cm 2.51 mmho/cm		******		******	0-6" 8						70 Ca	70 1	.9 /		,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,,	70 11

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. High salt levels may decrease yields in portions of this field. Crop Removal: P2O5 = 64 K2O = 43 AGVISE Broadcast guidelines will build P & K test levels to the high range over several 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. High salt levels may decrease yields in portions of this field. Crop Removal: P2O5 = 65 K2O = 149 A GVISE Broadcast guidelines will build P & K test levels to the high range over several years.

Crop 3: Many crops may respond to a starter application of P & K even on high soil tests. High salt levels may decrease yields in portions of this field. Crop Removal: P205 = 44 K20 = 75 AGVISE Broadcast guidelines will build P & K test levels to the high range over several years. Soybeans may respond to nitrogen on fields testing less than 60 lb/ac with a limited soybean history.



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

SUBMITTED FOR:

SOIL TEST REPORT

FIELD ID **NE 28-13-03E**

SAMPLE ID

FIELD NAME **NE 28-13-03E**

COUNTY

TWP

SECTION QTR ACRES 0

PREV. CROP

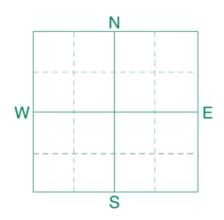
SUBMITTED BY: DU4426

RANGE

FOUR OAK AG SOLUTION

31119 RD 27E BOX 131

KLEEFELD, MB ROA OVO



REF # 1908815 BOX # 0

LAB # **NW32609**

Date Sampled 05/25/2017

Canada Sheep & Lamb Farms

Date Received **05/31/2017**

Date Reported **5/31/2017**

Nutrient In	The Soil	In	terp	retat	ion	1s	t Cro	p Choic	e	2n	d Cro	p Choic	e	3r	d Cro	p Cho	ice
		VLow	Low	Med	High		Corr	n-Grain			Corn-	Silage			Soy	beans	
0-6" 6-24"	208 lb/ac 132 lb/ac						YIELI	GOAL			YIELD	GOAL			YIELI	GOAL	
6-24	132 lb/ac		*****	*****	*****		160	BU			18	Tons			50	BU	
0-24''	340 lb/ac					SUGO	GESTE	GUIDELII	NES	SUGO	GESTED	GUIDELIN	ES	SUG	GESTE	GUIDE	LINES
Nitrate							Broa	adcast			Broa	dcast			Broa	adcast	
						LB/A	CRE	APPLICA	TION	LB/A	CRE	APPLICA ⁻	ΓΙΟΝ	LB/A	CRE	APPLI	CATION
Olsen Phosphorus	33 ppm	*****	*****	*****	*****	N	10			N	10			N	***		
Potassium	324 ppm	*****	*****	*****	*****	P ₂ O ₅	15	Band (2	x2) *	P ₂ O ₅	15	Band (2)	(2) *	P ₂ O ₅	0		
Chloride						K ₂ O	10	Band (2	x2) *	K ₂ O	10	Band (2)	(2) *	K ₂ O	0		
0-6" 6-24"	120 +lb/ac 360 +lb/ac				****** *****	CI				CI				CI			
Sulfur Boron						S	0			S	0			S	0		
Zinc	2.99 ppm	*****	k*****	****	* * * * * *	В				В				В			
Iron						Zn	0			Zn	0			Zn	0		
Manganese						Fe				Fe				Fe			
Copper	1.68 ppm	****	*****	* ****	**	Mn				Mn				Mn			
Magnesium						Cu	0			Cu	0			Cu	0		
Calcium						Mg				Mg				Mg			
Sodium						Lime				Lime				Lime			
Org.Matter	16.3 %	****	*****	*****	*****				Cati	ion Excl	nange	% Ba	se Sa	turatio	п (Тур	ical Ra	nge)
Carbonate(CCE)						Soil p	Soil pH Bu			Capacit	_	% Ca	% I	4g %	K	% Na	% Н
0-6" 6-24" Sol. Salts	1.78 mmho/cm 2.72 mmho/cm			* * * * * * * * * * * * * * * * * * *		0-6" 7 6-24" 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 = 64 K2O = 43 AGVISE Broadcast guidelines will build P & K test levels to the high range over several 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 = 65 K2O = 149 A GVISE Broadcast guidelines will build P & K test levels to the high range over several years.

Crop 3: Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 44 K2O = 75 AGVISE Broadcast guidelines will build P & K test levels to the high range over several years.



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

SOIL TEST REPORT

NE 04-13-03E FIELD ID

SAMPLE ID

FIELD NAMENE 04-13-03E

COUNTY

TWP

ACRES 0 SECTION QTR

RANGE

SUBMITTED BY: DU4426

PREV. CROP

W Ε S

1908817 BOX # REF #

LAB# NW32625

SUBMITTED FOR:

Canada Sheep & Lamb Farms

BOX 131 KLEEFELD, MB

31119 RD 27E

FOUR OAK AG SOLUTION

ROA 0V0

Date Sampled **05/25/2017** Date Received **05/31/2017** Date Reported 5/31/2017

Nutrient Ir	n The Soil	In	terp	retati	on	1 s	t Cro	p Choice	Э	2n	d Cro	p Choic	е	3r	d Cro	p Cho	ice
		VLow	Low	Med	High		Corn	-Grain			Corn-	Silage			Soy	beans	
0-6" 6-24"	6 lb/ac 12 lb/ac						YIELD	GOAL			YIELD	GOAL			YIEL	GOAL	
0-24	12 10/ ac	****					160	BU			18	Tons			50	BU	
0-24''	18 lb/ac					SUGO	GESTED	GUIDELIN	IES	SUGO	GESTED	GUIDELIN	IES	SUG	GESTE	GUIDE	LINES
Nitrate							Broa	ıdcast			Broa	dcast			Broa	adcast	
						LB/A	CRE	APPLICA	TION	LB/A	CRE	APPLICA	TION	LB/A	CRE	APPLI	CATION
Olsen Phosphorus	4 ppm	*****				N	174			N	169			N	***		
Potassium	321 ppm	*****	*****	*****	*****	P ₂ O ₅	129	Broadca	ıst	P ₂ O ₅	127	Broadca	ast	P ₂ O ₅	84	Broa	dcast
Chloride						K ₂ O	10	Band (2)	(2) *	K ₂ O	10	Band (2)	(2) *	K ₂ O	0		
0-6" 6-24"	120 +lb/ac 360 +lb/ac					CI				CI				CI			
Sulfur						S	0			S	0			S	0		
Boron						В				В				В			
Iron	0.67 ppm	*****	*****	* *		Zn	7	Broadca	st	Zn	7	Broadca	est	Zn	4	Broa	dcast
Manganese						Fe				Fe				Fe			
Copper	1.98 ppm	*****	*****	* *****	**	Mn				Mn				Mn			
Magnesium	202					Cu	0			Cu	0			Cu	0		
Calcium						Mg				Mg				Mg			
Sodium						Lime				Lime				Lime			
Org.Matter	6.1 %	*****	*****	*****	*****				Cati	ion Excl	ange	% Ba	se Sa	turatio	n (Tyn	ical Ra	nge)
Carbonate(CCE)						Soil p	Н В	uffer pH		Capacit	_	% Ca	% I		```	% Na	% H
0-6" 6-24" Sol. Salts	1.24 mmho/cm 2.11 mmho/cm					0-6" 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 = 64 K2O = 43 AGVISE Broadcast guidelines will build P & K test levels to the high range over several 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 = 65 K2O = 149 A GVISE Broadcast guidelines will build P & K test levels to the high range over several years.

Crop 3: Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P205 = 44 K20 = 75 AGVISE Broadcast guidelines will build P & K test levels to the high range over several years. Soybeans may respond to nitrogen on fields testing less than 60 lb/ac with a limited soybean history.



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

SUBMITTED FOR:

SOIL TEST REPORT

FIELD ID **SE 05-13-03E**

SAMPLE ID

FIELD NAME SE 05-13-03E

COUNTY

TWP RANGE

SECTION QTR ACRES 0

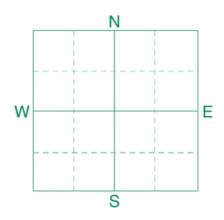
PREV. CROP

SUBMITTED BY: DU4426

FOUR OAK AG SOLUTION

31119 RD 27E BOX 131

KLEEFELD, MB ROA OVO



REF # 1908818 BOX # 0

LAB # **NW32617**

Date Sampled **05/25/2017**

Canada Sheep & Lamb Farms

Date Received **05/31/2017**

Date Reported 5/31/2017

Nutrient In	The Soil	In	terp	retat	ion	1s	t Cro	p Choic	е	2n	d Cro	p Choic	е	3r	d Cro	p Cho	ice
		VLow	Low	Med	High		Corn	-Grain			Corn-	Silage			Soy	beans	
0-6" 6-24"	4 lb/ac 6 lb/ac						YIELD	GOAL			YIELD	GOAL			YIEL	O GOAL	
0-24	0 15/ 40	**					160	BU			18	Tons			50	BU	
0-24''	10 lb/ac					SUGO	GESTED	GUIDELIN	NES	SUGO	GESTED	GUIDELIN	IES	SUG	GESTE	GUIDE	LINES
Nitrate							Broa	ıdcast			Broa	dcast			Bro	adcast	
						LB/A	CRE	APPLICA	TION	LB/A	ACRE	APPLICA ⁻	TION	LB/A	CRE	APPLI	CATION
Olsen Phosphorus	4 ppm	*****	k			N	182			N	177			N	***		
Potassium	287 ppm	*****	*****	*****	*****	P ₂ O ₅	129	Broadc	ast	P ₂ O ₅	127	Broadca	ast	P ₂ O ₅	84	Broa	dcast
Chloride						K ₂ O	10	Band (2:	x2) *	K ₂ O	10	Band (2)	(2) *	K ₂ O	0		
0-6" 6-24"	120 +lb/ac 360 +lb/ac		*****	*****	*****	CI				CI				CI			
Sulfur	300 115,40					S	0			S	0			S	0		
Boron						В				В				В			
Zinc	0.77 ppm	*****	*****	k**		Zn	5	Broadc	ast	Zn	5	Broadca	ast	Zn	2	Broa	dcast
Iron						Fe				Fe				Fe			
Manganese Copper						Mn				Mn				Mn			
Magnesium	1.93 ppm	*****	*****	*****	k**	Cu	0			Cu	0			Cu	0		
Calcium						Mg				Mg				Mg			
Sodium						Lime				Lime				Lime			
Org.Matter	4.9 %	*****	*****	k*****	k*	Line						0/ =			/-		``
Carbonate(CCE)	115 75					Soil p	он В	uffer pH		ion Excl		% Ba	se Sa % I			oical Ra % Na	nge) % H
0-6" 6-24" Sol. Salts	4.12 mmho/cm 4.8 mmho/cm			******		0-6" 8					-,	70 Cd	70 1	.g 7		75 140	70 11

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. High salt levels may decrease yields in portions of this field. Crop Removal: P2O5 = 64 K2O = 43 AGVISE Broadcast guidelines will build P & K test levels to the high range over several 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. High salt levels may decrease yields in portions of this field. Crop Removal: P2O5 = 65 K2O = 149 A GVISE Broadcast guidelines will build P & K test levels to the high range over several years.

Crop 3: Many crops may respond to a starter application of P & K even on high soil tests. High salt levels may decrease yields in portions of this field. Crop Removal: P205 = 44 K20 = 75 AGVISE Broadcast guidelines will build P & K test levels to the high range over several years. Soybeans may respond to nitrogen on fields testing less than 60 lb/ac with a limited soybean history.



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

SOIL TEST REPORT

FIELD ID **NW 32-12-03E**

SAMPLE ID

FIELD NAME **NW 32-12-03E**

COUNTY

TWP

RANGE

SUBMITTED BY: DU4426

SECTION QTR ACRES 0

PREV. CROP

W ______E

REF # 1908819 BOX # 0

LAB # **NW32628**

SUBMITTED FOR:

Canada Sheep & Lamb Farms

FOUR OAK AG SOLUTION 31119 RD 27E BOX 131

KLEEFELD, MB ROA 0V0

Date Sampled **05/25/2017**

Date Received **05/31/2017**

Date Reported **5/31/2017**

Nutrient In	The Soil	In	terp	retat	ion	1s	t Cro	p Choic	e	2n	d Cro	p Choic	е	3r	d Cro	p Cho	ice
		VLow	Low	Med	High		Corr	n-Grain			Corn-	Silage			Soy	beans	
0-6"	88 lb/ac						YIELD	GOAL COMPANY			YIELD	GOAL			YIELI	GOAL	
6-24"	81 lb/ac	*****	*****	*****	*****		160	BU			18	Tons			50	BU	
0-24''	169 lb/ac					SUGO	GESTE	GUIDELII	NES	SUGO	GESTED	GUIDELIN	IES	SUG	GESTE	GUIDE	LINES
Nitrate							Broa	adcast			Broa	dcast			Broa	adcast	
						LB/A	CRE	APPLICA	TION	LB/A	CRE	APPLICA ⁻	TION	LB/A	CRE	APPLI	CATION
Olsen	25 ppm	*****	*****	*****	* *****	N	23			N	18			N	***		
P otassium	290 ppm	*****	*****	*****	*****	P ₂ O ₅	15	Band (2	x2) *	P ₂ O ₅	22	Broadca	ast	P ₂ O ₅	0		
Chloride						K ₂ O	10	Band (2	x2) *	K ₂ O	10	Band (2)	(2) *	K ₂ O	0		
0-6" 6-24" Sulfur	120 +lb/ac 360 +lb/ac				******	CI				CI				CI			
Boron						S	0			S	0			S	0		
Zinc	2.10 ppm	*****	*****	* ****	* *****	В				В				В			
Iron						Zn	0			Zn	0			Zn	0		
Manganese						Fe				Fe				Fe			
Copper	2.02 ppm	*****	*****	* ****	* **	Mn				Mn				Mn			
Magnesium						Cu	0			Cu	0			Cu	0		
Calcium						Mg				Mg				Mg			
Sodium						Lime				Lime				Lime			
Org.Matter	6.8 %	*****	*****	*****	*****			-	Cati	ion Excl	nange	% Ba	se Sa	turatio	n (Typ	ical Ra	nge)
Carbonate(CCE)						Soil p	Н В	Suffer pH		Capacit	_	% Ca	% I	4g %	o K	% Na	% H
0-6" 6-24" Sol. Salts	2.03 mmho/cm 2.01 mmho/cm			****** *****	* ***** * *****	0-6" 8 6-24" 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. High salt levels may decrease yields in portions of this field. Crop Removal: P205 = 64 K20 = 43 AGVISE Broadcast guidelines will build P & K test levels to the high range over several 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. High salt levels may decrease yields in portions of this field. Crop Removal: P2O5 = 65 K2O = 149 A GVISE Broadcast guidelines will build P & K test levels to the high range over several years.

Crop 3: Many crops may respond to a starter application of P & K even on high soil tests. High salt levels may decrease yields in portions of this field. Crop Removal: P2O5 = 44 K2O = 75 A GVISE Broadcast guidelines will build P & K test levels to the high range over several years.



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

SOIL TEST REPORT

SW 32-12-03E FIELD ID

SAMPLE ID

FIELD NAMESW 32-12-03E

FOUR OAK AG SOLUTION

COUNTY

TWP

RANGE SECTION ACRES 0 QTR

SUBMITTED BY: DU4426

Date Received 05/31/2017

PREV. CROP

W Ε S

Date Reported 5/31/2017

% Base Saturation (Typical Range)

% Na

% H

% Mg

1908820 BOX # REF # 0

LAB# NW32607

SUBMITTED FOR:

1.06 mmho/cm

1.57 mmho/cm

Carbonate(CCE)

Sol. Salts

0-6"

6-24"

Canada Sheep & Lamb Farms

31119 RD 27E **BOX 131**

KLEEFELD, MB **ROA 0V0**

Date Sampled 05/25/2017

Nutrient I	n The Soil	In	iterp	retation	1	.st Cı	rop Choice	2	nd C	rop Choice	3r	d Cro	p Choice
		VLow	Low	Med High		Со	orn-Grain		Со	rn-Silage		Soy	beans
0-6" 6-24"	93 lb/ac 84 lb/ac					YIE	ELD GOAL		YIE	LD GOAL	YIELD G		GOAL
0-24	04 lb/ ac	****	*****	* * * * * * * * * * * * * * * * * * * *		160 BU			18 Tons			50	BU
0-24''	177 lb/ac				SUC	SUGGESTED GUIDELINES			SUGGESTED GUIDELINES			SUGGESTED GUIDELI	
Nitrate					Broadcast		Broadcast		oadcast		Broa	adcast	
					LB/A	CRE	APPLICATION	LB/A	CRE	APPLICATION	LB/A	CRE	APPLICATION
Olsen Phosphorus	16 ppm	*****	*****	*****	N	15		N	10		N	***	
Potassium	302 ppm	****	*****	* *****	P ₂ O ₅	60	Broadcast	P ₂ O ₅	67	Broadcast	P ₂ O ₅	36	Broadcast
					K ₂ O	10	Band (2x2) *	K ₂ O	10	Band (2x2) *	K ₂ O	0	
Chloride					CI			CI			CI		
0-6" 6-24"	120 +lb/ac 360 +lb/ac			* ****** ***** * *****	S	0		S	0		S	0	
Sulfur Boron					В			В			В		
Zinc	1.45 ppm	****	k****	* ****	Zn	4	Broadcast(Trial)	Zn	4	Broadcast(Trial)	Zn	0	
Iron													
Manganese					Fe			Fe			Fe		
Copper	1.54 ppm	****	*****	* *****	Mn			Mn			Mn		
Magnesium					Cu	0		Cu	0		Cu	0	
Calcium					Mg			Mg			Mg		
Sodium					Lime			Lime			Lime		
Org.Matter	6.3 %	****	*****	* *****						% Race Satu		(T:	nal Danna)

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 = 64 K2O = 43 AGVISE Broadcast guidelines will build P & K test levels to the high range over several years.

Soil pH

0-6" 8.2

6-24" **8.4**

Buffer pH

Cation Exchange

Capacity

% Ca

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 = 65 K2O = 149 A GVISE Broadcast guidelines will build P & K test levels to the high range over several years.

Crop 3: Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 44 K2O = 75 A GVISE Broadcast guidelines will build P & K test levels to the high range over several years.



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

Benson: (320) 843-4109

SUBMITTED FOR:

Canada Sheep & Lamb Farms

SOIL TEST REPORT

FIELD ID SW 33-12-03E

SAMPLE ID

FIELD NAMESW 33-12-03E

COUNTY

TWP **RANGE**

ACRES 0 SECTION QTR

PREV. CROP

SUBMITTED BY: DU4426

FOUR OAK AG SOLUTION

31119 RD 27E **BOX 131**

KLEEFELD, MB **ROA 0V0** W Ε S

1908821 BOX # REF # 0

LAB# NW32612

Date Sampled 05/25/2017

Date Received **05/31/2017**

Date Reported 5/31/2017

Nutrient In	The Soil	In	terp	retat	ion	1	st C	rop Choic	æ	2	nd Cı	op Cho	ice	3r	d Cro	p Cho	ice
		VLow	Low	Med	High		Co	orn-Grain			Cor	n-Silage			Soy	beans	
0-6" 6-24"	180 lb/ac 51 lb/ac						YII	ELD GOAL			YIE	LD GOAL			YIELI	GOAL	
0-24	31 lb/ ac	*****	*****	*****	*****		1	60 BU			18	Tons			50	BU	
0-24''	231 lb/ac					SUC	GEST	ED GUIDELI	NES	SUC	GGEST	ED GUIDEL	INES	SUGO	GESTE	GUIDE	LINES
Nitrate							В	roadcast			Br	oadcast			Bro	adcast	
						LB/A	CRE	APPLICA	TION	LB/A	CRE	APPLICA	ATION	LB/A	CRE	APPLIC	ATION
Olsen Phosphorus	17 ppm	*****	*****	*****	*****	N	10			N	10			N	***		
Potassium	339 ppm	*****	*****	* ****	* *****	P ₂ O ₅	54	Broadca	ast	P ₂ O ₅	62	Broado	ast	P ₂ O ₅	32	Broad	cast
						K ₂ O	10	Band (2x	2) *	K ₂ O	10	Band (2	x2) *	K ₂ O	0		
Chloride						CI				CI				CI			
0-6" 6-24"	66 lb/ac 360 +lb/ac				* ***** * *****	S	0			S	0			S	0		
Sulfur	•					В				В				В			
Boron								Buonden et	(T=:=1)			Duandana	*(T=:=1)				
Zinc	1.02 ppm	*****	*****	*****	*	Zn	2	Broadcast	(Iriai)	Zn	2	Broadcas	t(Iriai)	Zn	0		
Iron						Fe				Fe				Fe			
Manganese																	
Copper	1.77 ppm	*****	*****	*****	* *	Mn				Mn				Mn			
Magnesium						Cu	0			Cu	0			Cu	0		
Calcium						Mg				Mg				Mg			
Sodium						Lime				Lime				Lime			
Org.Matter	6.2 %	*****	*****	* ****	*****				Cati-	n Fust		% Ra	se Satu	ration	(Typi	ral Ran	ne)
Carbonate(CCE)						Soil	рН	Buffer pH		n Exch		% Ca	% Mg		` ' ' '	o Na	9е) % Н
0-6" 6-24" Sol. Salts	1.24 mmho/cm 1.01 mmho/cm			*****		0-6"				•	•	70 03	9				

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 = 64 K2O = 43 AGVISE Broadcast guidelines will build P & K test levels to the high range over several 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 = 65 K2O = 149 A GVISE Broadcast guidelines will build P & K test levels to the high range over several years.

Crop 3: Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 44 K2O = 75 AGVISE Broadcast guidelines will build P & K test levels to the high range over several years.



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

SOIL TEST REPORT

FIELD ID NW 33-12-03E

SAMPLE ID

FIELD NAME NW 33-12-03E

COUNTY

TWP

RANGE

SUBMITTED BY: DU4426

ACRES 0 SECTION QTR

PREV. CROP

S

W

1908822 BOX # REF #

LAB# NW32618

SUBMITTED FOR:

Canada Sheep & Lamb Farms

FOUR OAK AG SOLUTION 31119 RD 27E **BOX 131**

KLEEFELD, MB

ROA 0V0

Date Sampled 05/25/2017

Date Received **05/31/2017**

Date Reported 5/31/2017

0

Ε

Nutrient In	The Soil	In	terp	retati	ion	1s	t Cro	p Choic	е	2n	d Cro	p Choic	e	3r	d Cro	p Cho	ice
		VLow	Low	Med	High		Corr	-Grain			Corn-	Silage			Soy	beans	
0-6" 6-24"	172 lb/ac 105 lb/ac						YIELI	GOAL			YIELD	GOAL			YIELI	GOAL	
6-24	105 lb/ac	****	*****	*****	*****		160	BU			18	Tons			50	BU	
0-24''	277 lb/ac					SUGO	GESTE	GUIDELIN	NES	SUGO	GESTED	GUIDELIN	ES	SUG	GESTE	GUIDE	LINES
Nitrate							Broa	adcast			Broa	dcast			Broa	adcast	
						LB/A	CRE	APPLICA	TION	LB/A	CRE	APPLICA ⁻	TION	LB/A	CRE	APPLI	CATION
Olsen	51 ppm	****	*****	*****	*****	N	10			N	10			N	***		
P otassium	589 ppm	****	*****	*****	*****	P ₂ O ₅	15	Band (2	x2) *	P ₂ O ₅	15	Band (2)	(2) *	P ₂ O ₅	0		
Chloride						K ₂ O	10	Band (2	x2) *	K ₂ O	10	Band (2)	(2) *	K ₂ O	0		
0-6" 6-24" Sulfur	32 lb/ac 102 lb/ac			*******	* *****	CI				CI				CI			
Boron						S	0			S	0			S	0		
Zinc	2.49 ppm	****	****	*****	*****	В				В				В			
Iron	• •					Zn	0			Zn	0			Zn	0		
Manganese						Fe				Fe				Fe			
Copper	1.83 ppm	****	*****	*****	* *	Mn				Mn				Mn			
Magnesium						Cu	0			Cu	0			Cu	0		
Calcium						Mg				Mg				Mg			
Sodium						Lime				Lime				Lime			
Org.Matter	6.0 %	*****	*****	*****	*****				Cati	ion Excl	nange	% Ba	se Sa	turatio	n (Typ	ical Ra	nge)
Carbonate(CCE)						Soil p	Н В	uffer pH		Capacit	_	% Ca	% I		<u> </u>	% Na	% H
0-6" 6-24" Sol. Salts	0.77 mmho/cm 0.56 mmho/cm		*****	****** *	k	0-6" 7 6-24" 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 = 64 K2O = 43 AGVISE Broadcast guidelines will build P & K test levels to the high range over several years.

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Crop 3: Many crops may respond to a starter application of P & K even on high soil tests. Crop Removal: P2O5 = 44 K2O = 75 AGVISE Broadcast guidelines will build P & K test levels to the high range over several years.

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 *					* For beef, dairy, bison and horse
Feeder/heifer/steer (600 lb.)		5	9	-	enterprises:
Feeder (900 lb.)		7	12	-	Use summer numbers if
Feeder (1250 lb.)		10	15	-	appropriate for the operation.
Cow/calf pair		12	15	-	Otherwise base projections on winter values.
Dry milking cow **		10	12	-	Always use the greater of the
Lactating cow **		25	30	-	two values
Bison		8	10	-	two values.
Horses					
Horses		8	11	-	
Hogs					** For intensive Dairy operations,
Sow (Farrow/wean)		6.	.5	-	please use the Dairy Barn Water
Dry Sow/Boar		4	4	-	Requirement Estimator found on
Feeder		**	3	-	separate sheet.
Nursery (33 lb.)			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	100		2	200	
Ewes/Does	8,000	,	3	24,000	
Lambs/Kids (90 lb.)	4,558	1.	.6	7,293	Enter this number on page
		TOTAL	(IG/day)	31,493	7 of Application Form.
	***	TOTAL with 10	% wash water	34,642	
*** 10% of the total is added to allow] '				•
for wash water					
	'	U	Init Conversio	ns	
		Total per day			
	1				

Conversion Factor: 1 IGPM = 4.546 l/m

12,644,330

IG

litres

cubic

decametres

Enter this number on page 7 of Application Form.

34,642

Other consumption:

Normal household consumption:

60-75 IG/day per person or

(272-340 I/day/person)

Well_PID: 32083 G SMITH Owner:

Driller: Ford Drilling Ltd.

Well Name:

Well Use: PRODUCTION Water Use: Domestic UTMX: 632419.768 UTMY: 5548197.34 Accuracy XY: UNKNOWN

UTMZ:

Accuracy Z:

Date Completed: 1977 Oct 26

WELL LOG

From To Log (ft.) (ft.) 27.0 CLAY0 27.0 41.0 TILL 41.0 76.0 LIMESTONE

WELL CONSTRUCTION

From To Casing Inside Outside Slot (ft.) (ft.) Type Dia.(in) Dia.(in) Size(in) Type Material

43.0 casing

4.00 0 INSERT

GALVANIZED

43.0 76.0 open hole 3.90

0 0 casing grout

Top of Casing: ft. below ground

PUMPING TEST

Date:

Flowing Rate: 30.0 Imp. gallons/minute

Water level before pumping: ft. below ground
Pumping level at end of test: 5.0 ft. below ground 1 hours, 30 minutes Test duration:

Water temperature: ?? degrees F

Well_PID: 14263 Owner: R BYLE

Driller: PRUDEN DRILLING CO. LTD.

Well Name:

Well Use: PRODUCTION
Water Use: Domestic PRODUCTION UTMX: 632419.768 UTMY: 5548197.34 Accuracy XY: UNKNOWN

UTMZ:

Accuracy Z:

Date Completed: 1970 Jan 08

WELL LOG

From	To	Log
(ft.)	(ft.)	
0	7.0	BASEMENT
7.0	32.0	DARK CLAY
32.0	36.0	GREY SILT
36.0	45.0	GREY SANDY CLAY, GRAVEL
45.0	49.0	LAYER OF LIMESTONE
49.0	55.0	GRAVEL
55.0	77.0	LIMESTONE

WELL CONSTRUCTION

From	To	Casing	Inside	Outside	Slot	Type	Material
(ft.)	(ft.)	Type	Dia.(in)	Dia.(in)	Size(in)		
0	55.0	casing	4.00				
55.0	77.0	open hole					

Top of Casing: ft. below ground

PUMPING TEST

1970 Jan 08 Date:

30.0 Imp. gallons/minute Pumping Rate: Water level before pumping: 2.6 ft. above ground Pumping level at end of test: 17.0 ft. below ground Test duration: Test duration:
Water temperature: 20 hours, minutes

?? degrees F

REMARKS

190 FT W OF PR #220, GROUND LEVEL ELEV EST 760

Well_PID: 153131 Owner: NOT REPORTED

Driller: UNKNOWN

Well Name:

Well Use: PRODUCTION

Water Use:

UTMX: 632886 UTMY: 5548124

Accuracy XY: 4 FAIR [350M-1KM] [WITHIN SECTION]

UTMZ: 232

Accuracy Z: 4 FAIR - Shuttle at Centroid

Date Completed: 1998 Jan 01

No well log data for this well.

No construction data for this well.

Top of Casing: 0.0

No pump test data for this well.

REMARKS

1998 GSC GRASBY SO4 STUDY, DATE IS INACCURATE, WELL LOG UNAVAILABLE

Well_PID: 66274 Owner: B BARSKE

Driller: Stonewall Drilling

Well Name: UMA-314 Well Use: RECHARGE

Water Use: Air Conditioning

UTMX: 632811.372 UTMY: 5548617.16 Accuracy XY: UNKNOWN

UTMZ:

Accuracy Z:

Date Completed: 1989 Apr 27

WELL LOG

From To Log
(ft.) (ft.)
0 31.0 CLAY
31.0 34.0 TILL
34.0 41.0 FRACTURED LIMESTONE
41.0 94.9 LIMESTONE

WELL CONSTRUCTION

From To Casing Inside Outside Slot Type Material

(ft.) (ft.) Type Dia.(in) Dia.(in) Size(in)

0 44.0 casing 4.20 INSERT

GALVANIZED

44.0 94.9 open hole 4.00

44.0 12.0 casing grout CEMENT

Top of Casing: 1.5 ft. below ground

PUMPING TEST

Date: 1989 Apr 27

Pumping Rate: 15.0 Imp. gallons/minute Water level before pumping: 4.0 ft. below ground Pumping level at end of test: ?? ft. below ground Test duration: hours, 35 minutes

Water temperature: ?? degrees F

REMARKS

S.W. CORNER DEPREZ RD. + BLACKDALE RD. JAN.1993, GAMMA + CALIPER LOGGED. R.N.BETCHER.

Well_PID: 66285

Owner: MARINSH CONST

Driller: Stonewall Drilling

Well Name:

Well Use: PRODUCTION
Water Use: Domestic
UTMX: 632832.192
UTMY: 5547803.57
Accuracy XY: UNKNOWN

UTMZ:

Accuracy Z:

Date Completed: 1989 Mar 13

WELL LOG

From To Log

(ft.) (ft.)

0 1.0 TILL

1.0 63.0 RED ROCK 63.0 131.9 LIMESTONE

WELL CONSTRUCTION

From To Casing Inside Outside Slot Type Material

(ft.) (ft.) Type Dia.(in) Dia.(in) Size(in)

0 63.0 casing 4.20 INSERT

GALVANIZED

63.0 131.9 open hole 4.00

Top of Casing: 1.5 ft. below ground

PUMPING TEST

Date: 1989 Mar 13

Pumping Rate: 40.0 Imp. gallons/minute Water level before pumping: 26.0 ft. below ground Pumping level at end of test: ?? ft. below ground Test duration: hours, minutes

Water temperature: ?? degrees F

Well_PID: 25646 Owner: R BYLE

Driller: Ford Drilling Ltd.

Well Name:

Well Use: PRODUCTION
Water Use: Livestock
UTMX: 632832.192
UTMY: 5547803.57
Accuracy XY: UNKNOWN

UTMZ:

Accuracy Z:

Date Completed: 1975 Aug 12

WELL LOG

From To Log
(ft.) (ft.)
0 26.0 CLAY
26.0 34.0 TILL
34.0 41.0 GRAVEL, WATER IN IT
41.0 76.0 LIMESTONE SOME WATER AT 52 MORE AT 74

WELL CONSTRUCTION

From To Casing Inside Outside Slot Type Material (ft.) (ft.) Type Dia.(in) Dia.(in) Size(in)

0 45.0 casing 4.00

GALVANIZED

45.0 76.0 open hole 4.00

Top of Casing: ft. below ground

PUMPING TEST

Date:

Pumping Rate: 25.0 Imp. gallons/minute Water level before pumping: 2.0 ft. below ground Pumping level at end of test: ?? ft. below ground Test duration: 1 hours, 30 minutes

Water temperature: ?? degrees F

Well_PID: 33054 Owner: R BYLE

Driller: AQUARIUS WELL DRILLING

Well Name:

Well Use: PRODUCTION Water Use: Domestic UTMX: 632832.192 UTMY: 5547803.57 Accuracy XY: UNKNOWN

UTMZ:

Accuracy Z:

Date Completed: 1978 Sep 23

WELL LOG

From To Log (ft.) (ft.) 0 24.0 CLAY 24.0 38.0 HARDPAN 38.0 41.0 BROKEN LIMESTONE 41.0 55.0 WHITE& YELLOW LIMESTONE

WELL CONSTRUCTION

From To Casing Inside Outside Slot Type Material (ft.) (ft.) Type Dia.(in) Dia.(in) Size(in)

, 1,pe 42.0 casing

4.25 0

GALVANIZED

4.00 42.0 55.0 open hole

Top of Casing: ft. below ground

PUMPING TEST

Date:

Flowing Rate: 25.0 Imp. gallons/minute

Water level before pumping: ft. below ground Pumping level at end of test: 2.0 ft. below ground

Test duration: 1 hours, minutes

Water temperature: ?? degrees F

Well_PID: 66286

Owner: MARINSH CONST

Driller: Stonewall Drilling

Well Name:

Well Use: PRODUCTION Water Use: Domestic UTMX: 632832.192 UTMY: 5547803.57

Accuracy XY: UNKNOWN

UTMZ:

Accuracy Z:

Date Completed: 1989 Mar 13

WELL LOG

From To Log

(ft.) (ft.)

4.0 \mathtt{TILL} 0

4.0 77.0 SOFT RED ROCK 77.0 140.9 LIMESTONE

WELL CONSTRUCTION

To Casing Inside Outside Slot Type Material From

Dia.(in) Dia.(in) Size(in) (ft.) (ft.) Type

77.0 casing 4.20 INSERT

GALVANIZED

77.0 140.9 open hole 4.00

Top of Casing: 1.5 ft. above ground

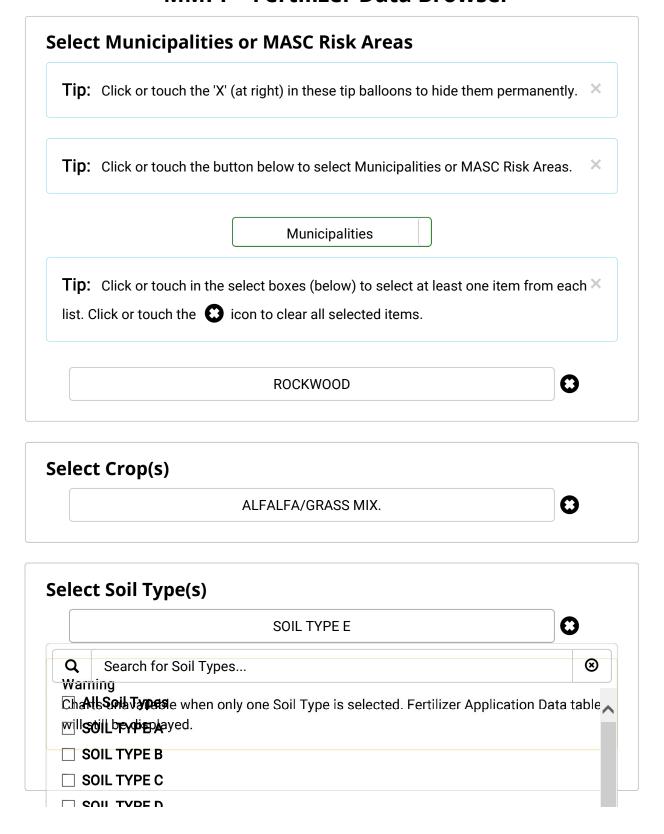
PUMPING TEST

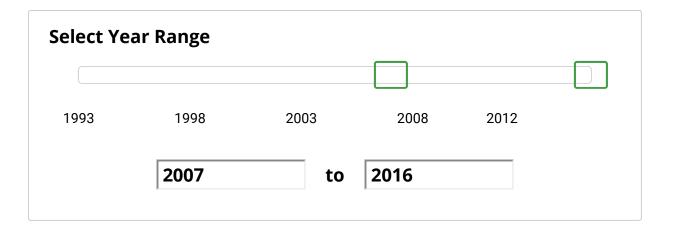
Date: 1989 Mar 13

Pumping Rate: 20.0 Imp. gallons/minute Water level before pumping: 36.0 ft. below ground Pumping level at end of test: ?? ft. below ground Test duration: hours, minutes

Water temperature: ?? degrees F







10 records returned

38 farm varieties grown on 2,590.0 acres

Average Yield

2.313 Tonnes (2.549 Tons) per acre

Average Fertilizer Application

Nitrogen: 34.4 lbs per acre

Phosphorus: 29.5 lbs per acre Potassium: 15.0 lbs per acre

Sulphur: 7.8 lbs per acre

Summary includes aggregate data from 'below minimum tolerance' records

Fertilizer Usage 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.

Year	Muni	Сгор	Soil	Farms	Acres	Yield/acreYield/acreNitrogen PhosphorBstassiurSulphur (metric) (imperial) (lbs) (lbs) (lbs) (lbs)
2007	Rockwood	Alfalfa/Gı d Mix.	rass E			*** Below Minimum Tolerance ***
2008	Rockwood	Alfalfa/Gı d Mix.	rass E			*** Below Minimum Tolerance ***

Year	Muni	Crop	Soil	Farms	Acres		eYield/acre (imperial)		Phospho (lbs)	or B otassiu (lbs)	ın s ulphu (lbs)
2009	Rockwood	Alfalfa/Gr I Mix.	ass E		;	*** Be	ow Minimur	n Toleran	ce ***	i	
2010	Rockwood	Alfalfa/Gr I Mix.	ass E			*** Be	ow Minimur	n Toleran	ce ***		
2011	Rockwood	Alfalfa/Gr I Mix.	ass E			*** Be	ow Minimur	n Toleran	ce ***		
2012	Rockwood	Alfalfa/Gr I Mix.	ass E			*** Be	ow Minimur	n Toleran	ce ***		
2013	Rockwood	Alfalfa/Gr I Mix.	ass E			*** Be	ow Minimur	n Toleran	ce ***		
2014	Rockwood	Alfalfa/Gr I Mix.	ass E			*** Be	ow Minimur	n Toleran	ce ***		
2016	Rockwood	Alfalfa/Gr I Mix.	ass E	9	672.0	2.551 Tonnes	2.812 Tons	27.4	33.4	8.0	7.5
2015	Rockwood	Alfalfa/Gr I Mix.	ass E	7	543.0	1.943 Tonnes	2.141 Tons	34.0	21.9	5.3	4.3

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Tip: Click	c or touch the 'X' (a	at right) in these tip	balloons to hide	them perman	ently. ×
Tip: Click	c or touch the butto	on below to select	Municipalities or	MASC Risk A	reas. X
		Municipalit	ies		
-		elect boxes (below)		t one item fro	m each X
IIST. CIICK O	r touch the 😈 ic	on to clear all sele	ciea items.		
		ROCKWOOD			0
elect Cro	op(s)				
					(3)
		ALFALFA/GRASS	MIX.		
		ALFALFA/GRASS	MIX.		
	il Type(s)	4 selected	MIX.		6
			MIX.		
elect So			MIX.		

_			
	2007	to	2016
,_			

31 records returned

69 farm varieties grown on 5,581.0 acres

Average Yield

2.091 Tonnes (2.305 Tons) per acre

Average Fertilizer Application

Nitrogen: 24.8 lbs per acre

Phosphorus: **42.9** lbs per acre

Potassium: **9.8** lbs per acre

Sulphur: 4.2 lbs per acre

Summary includes aggregate data from 'below minimum tolerance' records

Fertilizer Usage 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.

Year	Muni	Crop	Soil	Farms	Acres	Yield/acreYield/acreNitrogen PhosphorBestassiurSulphur (metric) (imperial) (lbs) (lbs) (lbs) (lbs)
2007	Rockwood	Alfalfa/G d Mix.	rass F			*** Below Minimum Tolerance ***
2007	Rockwood	Alfalfa/G d Mix.	rass G			*** Below Minimum Tolerance ***

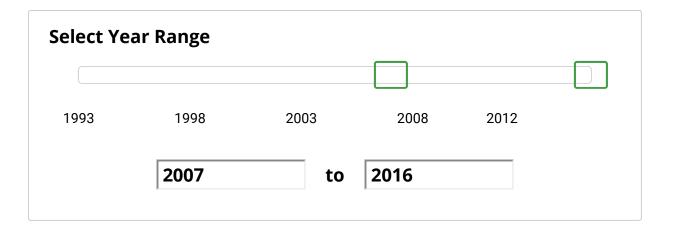
Year	Muni	Crop	Soil	Farms	Acres		reYield/acre (imperial)	_	(lbs)	(lbs)	(lbs)
2007	Rockwood	Alfalfa/Gı I Mix.	ass H			*** Be	low Minimur	n Toleran	nce ***	.:	
2007	Rockwood	Alfalfa/Gı I Mix.	ass I			*** Be	low Minimur	n Toleran	nce ***		
2008	Rockwood	Alfalfa/Gı I Mix.	ass F			*** Be	low Minimur	n Toleran	nce ***		
2008	Rockwood	Alfalfa/Gı I Mix.	ass G			*** Be	low Minimur	n Toleran	nce ***		
2008	Rockwood	Alfalfa/Gr I Mix.	ass H			*** Be	low Minimur	n Toleran	nce ***		
2008	Rockwood	Mix.	I			*** Be	low Minimur	n Toleran	nce ***		
2009	Rockwood	Alfalfa/Gı I Mix.	ass F			*** Be	low Minimur	n Toleran	nce ***		
2009	Rockwood	Alfalfa/Gr I Mix.	ass G			*** Be	low Minimur	n Toleran	nce ***		
2009	Rockwood	Alfalfa/Gı I Mix.	ass H	*** Below Minimum Tolerance ***							
2010	Rockwood	Alfalfa/Gı I Mix.	ass F			*** Be	low Minimur	n Toleran	nce ***		
2010	Rockwood	Alfalfa/Gı I Mix.	ass G			*** Be	low Minimur	n Toleran	nce ***		
2010	Rockwood	Alfalfa/Gı I Mix.	ass H			*** Be	low Minimur	n Toleran	nce ***		
2011	Rockwood	Alfalfa/Gı I Mix.	ass F			*** Be	low Minimur	n Toleran	nce ***		
2011	Rockwood	Alfalfa/Gı I Mix.	ass G			*** Be	low Minimur	n Toleran	nce ***		
2011	Rockwood	Alfalfa/Gı I Mix.	ass H			*** Be	low Minimur	n Toleran	nce ***		
2012	Rockwood	Alfalfa/Gı I Mix.	ass F			*** Be	low Minimur	n Toleran	nce ***		
2012	Rockwood	Alfalfa/Gı I Mix.	ass G			*** Be	low Minimur	n Toleran	nce ***		
2012	Rockwood	Alfalfa/Gı I Mix.	ass H			*** Be	low Minimur	n Toleran	nce ***		
2013	Rockwood	Alfalfa/Gr I Mix.	ass F			*** Be	low Minimur	n Toleran	nce ***		

Year	Muni	Crop	Soil	Farms	Acres	Yield/acre/ield/acre/litroger (metric) (imperial) (lbs)		or Bs tassiu (lbs)	in S ulphu (lbs)				
2013	Rockwood	Alfalfa/G I Mix.	rass G			*** Below Minimum Tolerance ***							
2013	Rockwood	Alfalfa/G l Mix.	rass H		*** Below Minimum Tolerance ***								
2014	Rockwood	Alfalfa/G l Mix.	rass F		*** Below Minimum Tolerance ***								
2014	Rockwood	Alfalfa/G l Mix.	rass G		*** Below Minimum Tolerance ***								
2014	Rockwood	Alfalfa/G l Mix.	rass H	*** Below Minimum Tolerance ***									
2015	Rockwood	Alfalfa/G l Mix.	rass F		*** Below Minimum Tolerance ***								
2015	Rockwood	Alfalfa/G l Mix.	rass H		*** Below Minimum Tolerance ***								
2016	Rockwood	Alfalfa/G l Mix.	rass F		*** Below Minimum Tolerance ***								
2016	Rockwood	Alfalfa/G l Mix.	rass G		*** Below Minimum Tolerance ***								
2016	Rockwood	Alfalfa/G l Mix.	rass H	*** Below Minimum Tolerance ***									

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Гір:	Click or touch the 'X' (at right) in these tip balloons to hide them permanently.
Гір:	Click or touch the button below to select Municipalities or MASC Risk Areas.
	Municipalities
-	Click or touch in the select boxes (below) to select at least one item from each lick or touch the icon to clear all selected items.
	ROCKWOOD
lect	t Crop(s)
	SILAGE CORN
lect	: Soil Type(s)
	SOIL TYPE E
	ing s unavailable when only one Soil Type is selected. Fertilizer Application Data tabl ill be displayed.



9 records returned

19 farm varieties grown on 1,693.0 acres

Average Yield

14.398 Tonnes (**15.866** Tons) per acre

Average Fertilizer Application

Nitrogen: **134.7** lbs per acre Phosphorus: **34.5** lbs per acre Potassium: **32.6** lbs per acre Sulphur: **5.5** lbs per acre

Summary includes aggregate data from 'below minimum tolerance' records

Fertilizer Usage 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.

Year	Muni	Сгор	Soil	Farms	Acres	Yield/acreYield/acreNitrogen PhosphorBstassiurSulphur (metric) (imperial) (lbs) (lbs) (lbs) (lbs)				
2007	Rockwood	Silage d Corn	E			*** Below Minimum Tolerance ***				
2008	Rockwood	Silage d Corn	E	*** Below Minimum Tolerance ***						

Year	Muni	Crop	Soil	Farms	Acres		ererererererererererererererererererer		Phospho (lbs)	or Bs tassio (lbs)	ın s ulphu (Ibs)
2009	Rockwood	Silage I Corn	E			*** Bel	ow Minimun	n Toleran	ce ***		,
2011	Rockwood	Silage I Corn	E		*** Below Minimum Tolerance ***						
2012	Rockwood	Silage I Corn	E		*** Below Minimum Tolerance ***						
2013	Rockwood	Silage I Corn	E		*** Below Minimum Tolerance ***						
2014	Rockwood	Silage I Corn	E		*** Below Minimum Tolerance ***						
2015	Rockwood	Silage I Corn	E		*** Below Minimum Tolerance ***						
2016	Rockwood	Silage I Corn	E			*** Bel	ow Minimun	n Toleran	ce ***		

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Tip: Click	c or touch the 'X' (a	at right) in these tip	balloons to hide	them permar	nently. ×
Tip: Click	or touch the butte	on below to select	Municipalities or	MASC Risk A	reas. ×
		Municipalit	ies		
		elect boxes (below)		t one item fro	m each X
	-				
		ROCKWOOD			8
elect Cr	op(s)				
(SILAGE CORN			0
elect So	il Type(s)				
elect So	il Type(s)	4 selected			O
	il Type(s) ar Range	4 selected			•

	2007	to	2016
,			

14 records returned

20 farm varieties grown on 788.0 acres

Average Yield

8.893 Tonnes (**9.801** Tons) per acre

Average Fertilizer Application

Nitrogen: **125.8** lbs per acre Phosphorus: **44.8** lbs per acre Potassium: **31.4** lbs per acre Sulphur: **12.9** lbs per acre

Summary includes aggregate data from 'below minimum tolerance' records

Fertilizer Usage 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.

Year	Muni	Сгор	Soil	Farms	Acres	Yield/acreYield/acreNitrogen PhosphorBstassiurSulphur (metric) (imperial) (lbs) (lbs) (lbs) (lbs)
2007	Rockwood	Silage d Corn	F			*** Below Minimum Tolerance ***
2007	Rockwood	Silage d Corn	G			*** Below Minimum Tolerance ***

Year	Muni	Crop	Soil	Farms	Acres		re⁄ield/acre (imperial)	-	Phospho (lbs)	r B stassi (lbs)	un§ulphu (lbs)	
2007	Rockwood	Silage I Corn	Н	*** Below Minimum Tolerance ***								
2008	Rockwood	Silage I Corn	F		*** Below Minimum Tolerance ***							
2008	Rockwood	Silage I Corn	Н		*** Below Minimum Tolerance ***							
2009	Rockwood	Silage I Corn	F		*** Below Minimum Tolerance ***							
2009	Rockwood	Silage I Corn	Н	*** Below Minimum Tolerance ***								
2010	Rockwood	Silage I Corn	F	*** Below Minimum Tolerance ***								
2010	Rockwood	Silage I Corn	G	*** Below Minimum Tolerance ***								
2010	Rockwood	Silage I Corn	Н	*** Below Minimum Tolerance ***								
2012	Rockwood	Silage I Corn	Н	*** Below Minimum Tolerance ***								
2014	Rockwood	Silage I Corn	Н	*** Below Minimum Tolerance ***								
2015	Rockwood	Silage I Corn	G		*** Below Minimum Tolerance ***							
2016	Rockwood	Silage I Corn	G			*** Be	low Minimur	n Toleran	ıce ***			

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