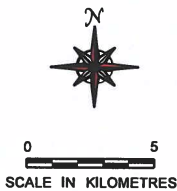


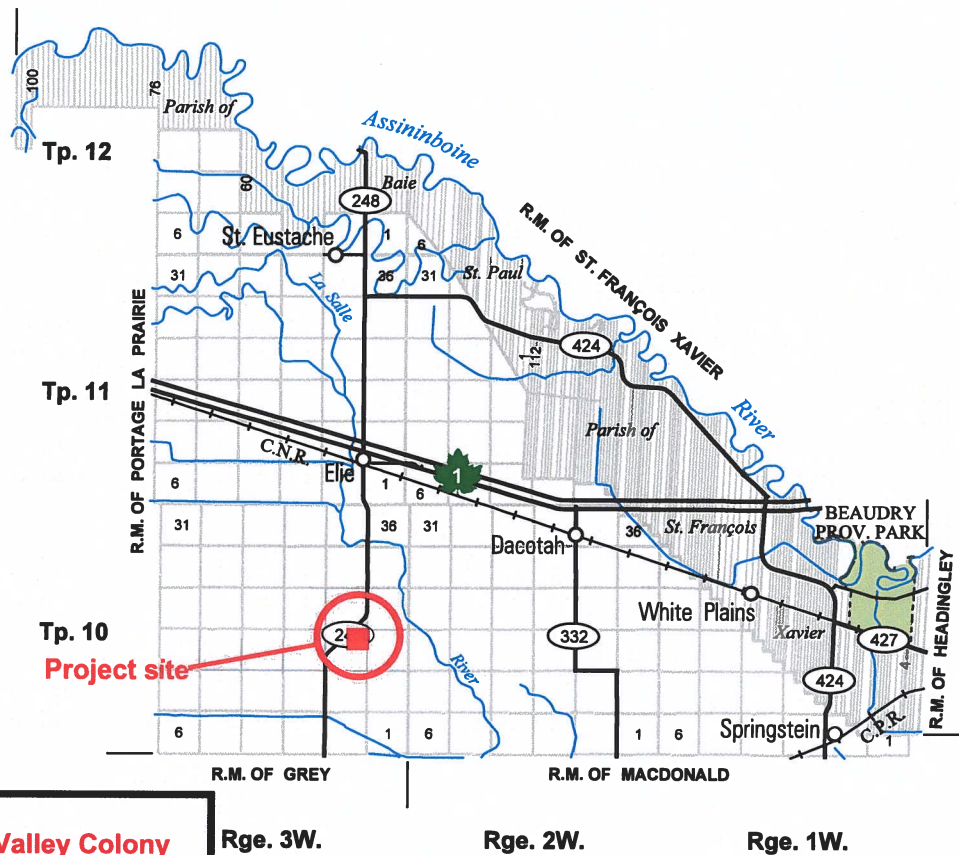
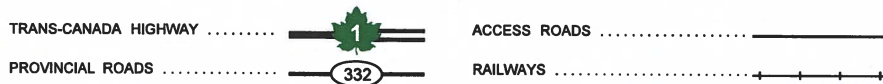
# R.M. OF CARTIER



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

REVISED: APRIL 2015

### LEGEND



**James Valley Colony  
NE 14-10-3W  
RM of Cartier**

# Animal Units Calculator

A	B	C	Current Operation		Proposed Operation	
			D	E	F	G
Operation Type	Animal Categories	Animal Units per Head	Current Number of Animals <sup>1</sup>	Current Animal Units	Proposed Number of Animals <sup>2</sup>	Proposed Number of Animal Units
Dairy <sup>3</sup>	Mature cows (lactating and dry) including associated livestock	2	80	160	10	20
	Mature cows (lactating and dry)	1.35		-		-
	Heifers (0 to 3 months)	0.16		-		-
	Heifers (4 to 13 months)	0.41		-		-
	Heifers (> 13 months)	0.87		-		-
	Bulls	1.35	3	4	-	-
Beef	Veal calves	0.13		-		-
	Beef cows including associated livestock	1.25		-		-
	Backgrounder	0.5		-		-
	Summer pasture / replacement heifers	0.625		-		-
Pigs	Feeder cattle	0.769	75	58	75	58
	Sows - farrow to finish (234-254 lbs)	1.25	600	750	650	813
	Sows - farrow to weaning (up to 11 lbs)	0.25		-		-
	Sows - farrow to nursery (51 lbs)	0.313		-		-
	Boars (artificial insemination units)	0.2		-		-
	Weanlings, Nursery (11-51 lbs)	0.033		-		-
	Growers / Finishers (51-249 lbs)	0.143		-		-
Chickens	Broilers	0.005		-	44,000	220
	Roasters	0.01		-		-
	Layers	0.0083	14,000	116	19,000	158
	Pullets	0.0033		-	9,500	31
	Broiler breeder pullets	0.0033		-		-
	Broiler breeder hens	0.01		-		-
Turkeys	Broilers	0.01		-		-
	Heavy Toms	0.02		-		-
	Heavy Hens	0.01		-		-
Horses	Mares	1.333		-		-
Sheep	Ewes	0.2		-		-
	Feeder lambs	0.063		-		-
Other Livestock	Geese		5,000	50		-
	Quail		6,000	20		-
Total Current:				1,158	Total Proposed:	1,299

**Footnotes:**

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

<sup>2</sup> Enter the total number of animals associated with the operation post construction or expansion.


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


**For all other livestock or operation types please inquire with**

[Manitoba Agriculture and Resource Development](#)






**ENGINEERS  
GEOSCIENTISTS  
MANITOBA**  
 Certificate of Authorization  
**South-Man Design Group Ltd.**  
**No. 7810**  
**ISSUED FOR CONSTRUCTION**

**CLIENT NAME:**  
**James Valley Colony**  
  
**SOUTH-MAN  
DESIGN GROUP LTD**  
 Unit 8 - 851 Lagimodiere Blvd, Winnipeg, MB, R2J 3K4  
 www.southmandesign.ca  
 Pete K: 204-371-7314 | Peter G: 204-223-8289  
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**PROJECT LOCATION:**  
**NE-14-10-3W, Elie, MB**  
**PROJECT NUMBER:** 2311-120  
**DRAWN BY:** AH  
**CHECKED BY:** DE  
**DATE:** **12/13/23**

**PROJECT NAME:**  
**Tech Review**  
**S-0**  
**Project Site Plan**



Livestock Type	Description	Number of Animals	Water Use Estimates		Livestock Water Use
			Imp Gal /day/animal	Additional Washwater	Imp gal/day/animal
<b>Dairy</b>					
Mature Cows*, including associated livestock	no plate coolers or plate coolers with water reused	10	54	0%	540
Mature Cows*, including associated livestock	plate coolers without water reused		82	0%	0
<b>Beef</b>					
Beef Cows, including associated livestock			15	0%	0
Backgrounder			10	0%	0
Summer Pasture/ Replacement Heifers			12	0%	0
Feedlot Cattle		75	19	0%	1425
<b>Pigs</b>					
Sows, farrow to weaning (5kg)			5.5	0%	0.0
Sows, farrow to nursery (23kg)			9.5	0%	0.0
Sows, farrow to finish		650	26.7	0%	17355.0
Weanlings (5-23kg)			1.0	0%	0.0
Grower/Finishers			2.0	0%	0.0
Boars (artificial insemination operations)			4.0	0%	0.0
<b>Chicken</b>					
Broilers		44000	0.035	10%	1694.00
Roasters			0.04	10%	0.00
Layers		19000	0.055	10%	1149.50
Pullets		9500	0.04	10%	418.00
Broiler Breeder Pullets			0.04	10%	0.00
Broiler Breeder Hens			0.07	10%	0.00
<b>Turkey</b>					
Broilers			0.13	10%	0.00
Heavy Toms			0.16	10%	0.00
Heavy Hens			0.16	10%	0.00
<b>Horse</b>					
PMU Mares, including associated livestock			13.9	0%	0.0
<b>Sheep</b>					
Feeder Lambs			1.1	0%	0.0
Ewes, including associated livestock			3.9	0%	0.0
<b>Livestock Total (Imp Gal/day)</b>					22581.5
<b>Livestock Total (Litres/day)</b>					102655.5
<b>Households**</b>					
		<b>Number of People</b>	<b>Water Use Estimate</b>		<b>Household Water Use</b>
			<b>Imp Gal/day/person</b>		
Persons		150	33		4950
<b>Grand Total (Imp Gal/day)</b>					27531.5
<b>Grand Total (Litres/day)</b>					125158.2

\* Mature cows means all of the lactating and dry cows.

\*\* Include household consumption when a household is on site.



OR - RESIDENCE



Source: Esri, Mapbox, Earthstar Geographics

PROJECT NAME:	Tech Review
	<b>S-2</b>
	Land Use Map

PROJECT LOCATION:	NE-14-10-3W, Elie, MB
PROJECT NUMBER:	2311-120
DRAWN BY:	AH
CHECKED BY:	DE
DATE:	12/13/23

CLIENT NAME:	James Valley Colony
	<b>SOUTH-MAN</b> DESIGN GROUP LTD
	Unit 6 - 851 Lundberg Blvd, Winnipeg, MB, R2L 3K4 www.south-man.ca Pete K: 204-371-7314   Peter G: 204-223-8289
	This drawing is the property of South-Man Design Group Ltd. and may not be copied, distributed or reproduced without the written consent of SMDG Ltd.

**ENGINEERS  
GEOLOGISTS  
MANITOBA**

Certificate of Authorization

**South-Man Design Group Ltd.**

**No. 7810**

**ISSUED FOR CONSTRUCTION**

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# Yield Data

## Select Year Range



2013 to 2022

SEARCH

## Search Summary

440 records returned

2,286 farm varieties grown on 612,883.0 acres

### Average Yield

1.004 Tonnes ( 44.3 Bushels ) per acre

*Summary includes aggregate data from 'below minimum-tolerance' records*

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Showing 1 to 50 of 439 entries

Year	Risk Area / R.M.	Crop	Variety	Farms	Acres	Yield/acre (Metric)	Yield/acre (Imperial)
2017	CARTIER	ARGENTINE CANOLA	L140P (INVIGOR) (LT){PSR-R}	19	5,865.0	1.337 Tonnes	59.0 Bushels
2017	CARTIER	ARGENTINE CANOLA	L233P (BASF) [SCN0130] (LT) {PSR-R}	14	3,655.0	1.330 Tonnes	58.6 Bushels
2017	CARTIER	ARGENTINE CANOLA	46H75 (PIONEER) (ST)	8	2,030.0	1.308 Tonnes	57.7 Bushels
2013	CARTIER	ARGENTINE CANOLA	VR 9560 CL (PROVEN) (ST)	5	808.0	1.302 Tonnes	57.4 Bushels
2013	GREY	ARGENTINE CANOLA	VR 9560 CL (PROVEN) (ST)	4	737.0	1.288 Tonnes	56.8 Bushels
2017	CARTIER	ARGENTINE CANOLA	L252 (INVIGOR) (LT)	21	6,759.0	1.287 Tonnes	56.7 Bushels
2017	GREY	ARGENTINE CANOLA	46H75 (PIONEER) (ST)	6	946.0	1.268 Tonnes	55.9 Bushels
2017	GREY	ARGENTINE CANOLA	L233P (BASF) [SCN0130] (LT) {PSR-R}	16	3,887.0	1.267 Tonnes	55.9 Bushels
2013	CARTIER	ARGENTINE CANOLA	1012 RR (NEXERA) (RT)	7	2,300.0	1.266 Tonnes	55.8 Bushels
2017	CARTIER	ARGENTINE CANOLA	L230 (BAYER)[SCN0125](LT)	7	1,720.0	1.252 Tonnes	55.2 Bushels
2018	CARTIER	ARGENTINE CANOLA	L230 (BAYER)[SCN0125](LT)	6	1,771.0	1.252 Tonnes	55.2 Bushels
2017	GREY	ARGENTINE CANOLA	L230 (BAYER)[SCN0125](LT)	4	912.0	1.239 Tonnes	54.6 Bushels
2017	GREY	ARGENTINE CANOLA	L157H (INVIGOR HEALTH) (LT)	3	1,099.0	1.237 Tonnes	54.5 Bushels
2018	CARTIER	ARGENTINE CANOLA	L255PC (INVIGOR) [6CN0122] (LT) {PSR-R}	11	2,869.0	1.216 Tonnes	53.6 Bushels

## Select Year Range



2013 to 2022

SEARCH

## Search Summary

359 records returned

992 farm varieties grown on 150,308.0 acres

### Average Yield

3.046 Tonnes ( 119.9 Bushels ) per acre

*Summary includes aggregate data from 'below minimum tolerance' records*

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Showing 1 to 50 of 358 entries

Year	Risk Area / R.M.	Crop	Variety	Farms	Acres	Yield/acre (Metric)	Yield/acre (Imperial)
2022	GREY	GRAIN CORN	P7211AM (PIONEER) (LT) (RT) (HX1) (YG)	4	856.0	4.242 Tonnes	167.0 Bushels
2022	GREY	GRAIN CORN	DKC29-89RIB (DEKALB) (LT) (RT) (RIB)	5	950.0	4.226 Tonnes	166.4 Bushels
2022	CARTIER	GRAIN CORN	P7211AM (PIONEER) (LT) (RT) (HX1) (YG)	4	983.0	3.977 Tonnes	156.6 Bushels
2017	GREY	GRAIN CORN	P7632HR (PIONEER) (BT) (RT)	4	713.0	3.892 Tonnes	153.2 Bushels
2016	CARTIER	GRAIN CORN	P7958AM (PIONEER) (LT) (RT) (HX1)	3	854.0	3.883 Tonnes	152.9 Bushels
2016	CARTIER	GRAIN CORN	P7632AM (PIONEER) (BT) (LT)(RT)	4	682.0	3.860 Tonnes	152.0 Bushels
2022	GREY	GRAIN CORN	P7527AM (PIONEER) (LT) (RT)	6	739.0	3.777 Tonnes	148.7 Bushels
2022	GREY	GRAIN CORN	TH 6875 VT2P (THUNDER) (RT) (RIB)	4	567.0	3.757 Tonnes	147.9 Bushels
2022	GREY	GRAIN CORN	P7455R (PIONEER) (RT)	3	615.0	3.744 Tonnes	147.4 Bushels
2017	GREY	GRAIN CORN	P7632AM (PIONEER) (BT) (LT)(RT)	11	2,192.0	3.742 Tonnes	147.3 Bushels
2022	GREY	GRAIN CORN	DKC24-06RIB (DEKALB) (RT)	4	510.0	3.694 Tonnes	145.4 Bushels



## Select Year Range



2013 to 2022

SEARCH

## Search Summary

104 records returned

276 farm varieties grown on 23,070.0 acres

### Average Yield

1.594 Tonnes ( 1.756 Tons ) per acre

*Summary includes aggregate data from 'below minimum tolerance' records*

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Showing 1 to 50 of 103 entries

Year	Risk Area / R.M.	Crop	Variety	Farms	Acres	Yield/acre (Metric)	Yield/acre (Imperial)
2022	GREY	ALFALFA/GRASS MIX.	NO VAR (VARIETY TYPE UNKNOWN)	8	557.0	3.447 Tonnes	3.798 Tons
2015	GREY	ALFALFA/GRASS MIX.	NO VAR (VARIETY TYPE UNKNOWN)	7	790.0	2.411 Tonnes	2.657 Tons
2017	GREY	ALFALFA/GRASS MIX.	NO VAR (VARIETY TYPE UNKNOWN)	9	845.0	2.281 Tonnes	2.514 Tons
2016	GREY	ALFALFA/GRASS MIX.	NO VAR (VARIETY TYPE UNKNOWN)	8	704.0	2.232 Tonnes	2.459 Tons
2021	GREY	ALFALFA/GRASS MIX.	NO VAR (VARIETY TYPE UNKNOWN)	11	820.0	1.802 Tonnes	1.986 Tons
2017	GREY	ALFALFA/GRASS MIX.	NO VAR (ALF BRM TIM)	6	712.0	1.745 Tonnes	1.923 Tons
2016	GREY	ALFALFA/GRASS MIX.	NO VAR (ALF BRM TIM)	4	526.0	1.694 Tonnes	1.867 Tons
2015	GREY	ALFALFA/GRASS MIX.	NO VAR (ALF & UNKNOWN PERENNIAL GRASS)	6	590.0	1.624 Tonnes	1.790 Tons
2013	GREY	ALFALFA/GRASS MIX.	NO VAR (ALF & UNKNOWN PERENNIAL GRASS)	6	617.0	1.576 Tonnes	1.736 Tons
2016	GREY	ALFALFA/GRASS MIX.	NO VAR (ALF & UNKNOWN PERENNIAL GRASS)	6	590.0	1.507 Tonnes	1.661 Tons



## Select Year Range



2013 to 2022

SEARCH

## Search Summary

770 records returned

2,811 farm varieties grown on 659,358.5 acres

### Average Yield

0.952 Tonnes (35.0 Bushels) per acre

*Summary includes aggregate data from 'below minimum tolerance' records*

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Showing 1 to 50 of 769 entries

Year	Risk Area / R.M.	Crop	Variety	Farms	Acres	Yield/acre (Metric)	Yield/acre (Imperial)
2022	GREY	SOYBEANS	S005-C9X (SYNGENTA) (RR2X) [CW1660304-2]	4	590.0	1.589 Tonnes	58.4 Bushels
2022	CARTIER	SOYBEANS	DKB005-52 (DEKALB) (RT)	9	2,399.0	1.493 Tonnes	54.8 Bushels
2022	CARTIER	SOYBEANS	S005-C9X (SYNGENTA) (RR2X) [CW1660304-2]	3	1,020.0	1.490 Tonnes	54.8 Bushels
2022	GREY	SOYBEANS	NSC SPERLING RR2Y (NORTHSTAR) (RT)	4	922.0	1.463 Tonnes	53.8 Bushels
2022	GREY	SOYBEANS	S007-A2XS (SYNGENTA) (RR2X) [CW1660299]	15	3,795.0	1.463 Tonnes	53.8 Bushels
2022	GREY	SOYBEANS	P006A37X (PIONEER) (RR2X)	9	2,397.0	1.449 Tonnes	53.2 Bushels
2022	GREY	SOYBEANS	DKB008-48 (DEKALB) (RR2X)	12	3,032.0	1.440 Tonnes	52.9 Bushels
2022	GREY	SOYBEANS	S007-Y4 (SYNGENTA) (RT)	6	978.0	1.410 Tonnes	51.8 Bushels
2016	GREY	SOYBEANS	LS 003R24N (LEGEND) (RT)	3	1,360.0	1.381 Tonnes	50.8 Bushels
2016	CARTIER	SOYBEANS	NSC SANFORD R2Y (NSGENETICS) [009G12A1]	4	853.0	1.375 Tonnes	50.5 Bushels
2022	CARTIER	SOYBEANS	S007-Y4 (SYNGENTA) (RT)	15	3,458.0	1.371 Tonnes	50.4 Bushels
2013	GREY	SOYBEANS	NSC NIVERVILLE RR2Y (NSGENETICS) (RT)	4	833.0	1.366 Tonnes	50.2 Bushels
2016	CARTIER	SOYBEANS	25-10RY (DEKALB) (RT)	16	5,616.0	1.361 Tonnes	50.0 Bushels
2016	GREY	SOYBEANS	25-10RY (DEKALB) (RT)	25	7,231.0	1.360 Tonnes	50.0 Bushels
2022	GREY	SOYBEANS	DKB005-52 (DEKALB) (RT)	13	1,959.0	1.347 Tonnes	49.5 Bushels
2016	CARTIER	SOYBEANS	LS MAIDAN (LEGEND) [GS00872] (RT)	4	1,449.0	1.346 Tonnes	49.4 Bushels
2016	GREY	SOYBEANS	GRAY.R? (SFCAM) [SC2450R2L] (RT)	6	1,179.0	1.340 Tonnes	49.2 Bushels



## Select Year Range



2013 to 2022

SEARCH

## Search Summary

162 records returned

1,388 farm varieties grown on 455,106.0 acres

### Average Yield

1.723 Tonnes ( 63.3 Bushels ) per acre

*Summary includes aggregate data from 'below minimum tolerance' records*

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Showing 1 to 50 of 161 entries

Year	Risk Area / R.M.	Crop	Variety	Farms	Acres	Yield/acre (Metric)	Yield/acre (Imperial)
2017	CARTIER	RED SPRING WHEAT	AAC BRANDON (BW 932)	32	10,430.0	2.285 Tonnes	84.0 Bushels
2013	GREY	RED SPRING WHEAT	CDC GO (BW781)	3	1,110.0	2.264 Tonnes	83.2 Bushels
2017	GREY	RED SPRING WHEAT	AAC BRANDON (BW 932)	31	9,222.0	2.239 Tonnes	82.3 Bushels
2017	GREY	RED SPRING WHEAT	CARDALE (BW429)	22	6,975.0	2.103 Tonnes	77.3 Bushels
2022	CARTIER	RED SPRING WHEAT	SY GABBRO (SYNGENTA)	3	1,524.0	2.080 Tonnes	76.4 Bushels
2014	CARTIER	RED SPRING WHEAT	CARDALE (BW429)	4	935.0	2.061 Tonnes	75.7 Bushels
2017	CARTIER	RED SPRING WHEAT	CARBERRY (BW874)	11	1,920.0	2.054 Tonnes	75.5 Bushels
2017	CARTIER	RED SPRING WHEAT	CARDALE (BW429)	6	1,718.0	2.038 Tonnes	74.9 Bushels
2013	CARTIER	RED SPRING WHEAT	WR859 CL (BW859)	3	877.0	2.032 Tonnes	74.7 Bushels
2017	GREY	RED SPRING WHEAT	CARBERRY (BW874)	4	1,487.0	2.010 Tonnes	73.9 Bushels
2020	GREY	RED SPRING WHEAT	AAC BRANDON (BW 932)	57	19,876.0	1.952 Tonnes	71.7 Bushels



**4 - Land Base Summary****Operation Name:** James Valley Colony

<b>Nutrients Excreted</b>		<b>lbs</b>
Nitrogen		236925
Phosphorus (P2O5)		140149
<b>Crop Nutrient Use</b>		<b>lb/ac</b>
Average Crop N Uptake		153.8
Average Crop Phosphorus (P2O5) Removal		44.0
Operation-specific Phosphorus (P2O5) Allowance		87.9
<b>Land Available</b>		
		7304
<b>Land Base Required</b>		<b>acres</b>
Acres for Nitrogen		1540
Acres for Phosphorus (P2O5)		1594
<b>Phosphorus Balance</b>		<b>acres</b>
Acres for Phosphorus Balance (1X)		3188

**Note:** For lands located in Hanover and/or La Broquerie, the acres required for phosphorus are based on phosphorus balance (1X). For other lands, the acres required for phosphorus are based on twice crop phosphorus removal (2X). Land requirements for operations with lands inside and outside Hanover and/or La Broquerie are based on a weighted average.

Last revised November 26, 2019



**3 - Farm Excretion**

**Operation Name: James Valley Colony**

Species	Animal Category/Operation type	N (lb/year)	P2O5 (lb/year)
<b>Pigs</b>	Boars	0	0
	Weanlings/Nursery	0	0
	Growers/Finishers	0	0
	Sows, farrow to 5 kg	0	0
	Sows, farrow to 23 kg	0	0
	Sows, farrow to finish	176494	102516
<b>Beef</b>	Mature Cows and Bred Heifers, plus associated livestock	0	0
	Feedlot Cattle - long keep	3254	1810
	Feedlot Cattle - short keep	0	0
	Backgrounders - pasture	0	0
	Backgrounders - confined	0	0
<b>Dairy</b>	Lactating cow	0	0
	Lactating First Calf Heifer	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	3119	1542
<b>Sheep</b>	Ewes	0	0
	Replacement Ewes	0	0
	Rams	0	0
	Lambs	0	0
	Ewes, plus assoc livestock	0	0
	Feeder	0	0
<b>Chickens</b>	Light Broilers	0	0
	Broilers	30687	15293
	Broiler Breeder Pullets	0	0
	Broiler Breeder Hens	0	0
<b>Layers</b>	White Layer Pullets	3262	2355
	White Layer Hens	20109	16633
	White Breeder Pullets	0	0
	White Breeder Hens	0	0
	Brown Layer Pullets	0	0
	Brown Layer Hens	0	0
	Brown Breeder Pullets	0	0
	Brown Breeder Hens	0	0
<b>Turkeys</b>	Broiler Turkey (0-9 wks)	0	0
	Hen Turkey (0-11 wks)	0	0
	Heavy Hens (0-14 wks)	0	0
	Toms (0-14 wks)	0	0
	Breeding Hen Growers (0-30 wks)	0	0
	Breeding Hens (31-End of Lay)	0	0
	Breeding Tom Grower (0-17 wks)	0	0
	Breeding Tom Grower (17-30 wks)	0	0
	Breeding Tom (31-End of Lay)	0	0
<b>Total</b>		<b>236925</b>	<b>140149</b>

**Note:**

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



**2 - Crop Rotation  
Operation Name:**

**James Valley Colony**

Crop	Removal		Uptake		Yield	Units	Acreage	Removal		Uptake	
	P205	N	N	Units				P205	N		(lb)
Alfalfa	13.8	58	58	lb/ton		ton/ac					
Barley Grain	0.42	0.97	1.39	lb/bu		bu/ac					
Barley Silage	11.8	34.4	34.4	lb/ton		ton/ac					
Canola	1.04	1.93	3.19	lb/bu	44.5	bu/ac	3114	144116	267446	442048	
Corn Grain	0.44	0.97	1.53	lb/bu	119.9	bu/ac	2013	106198	234118	369279	
Corn Silage	12.7	31.2	31.2	lb/ton		tons/ac					
Dry Edible Beans	1.39	4.17	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		cwt/ac					
Grass Hay	10	34.2	34.2	lb/ton	1.756	tons/ac	220	3863	13212	13212	
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	35	bu/ac	776	22814	105109	141232	
Sunflower	1.1	2.8		lb/cwt		cwt/ac					
Wheat - Spring	0.59	1.5	2.11	lb/bu	63.3	bu/ac	1181	44107	112136	157738	
Wheat - Winter	0.51	1.04	1.35	lb/bu		bu/ac					
<b>Total Acres</b>							7304	321098	732021	1123509	
<b>Estimated Average Removal/Uptake (lb/ac)</b>											
<b>Acres in Hanover and La Broquerie</b>								44.0	100.2	153.8	
<b>Proportion in Hanover or La Broquerie</b>							0%				
<b>Additional Acres</b>											
<b>Crop Planned on Additional Acres</b>											
<b>Total Acreage</b>							7304				

**\*Notes:**

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



1e - Poultry

Operation Name: **James Valley Colony**

Species / Commodity	Type of Operation	Storage Type	Volatilization	Bird Places	Weight in kg	Weight out kg	Days on Feed	Cycles per Year	N Excreted Adjusted for N Loss lb/flock/yr	P2O5 Excreted lb/flock/yr
Chickens	Light Broilers	Solid Manure Shed	20%		0.043	1.8	30	7	0	0
Chickens	Broilers	Solid Manure Shed	20%	44000	0.043	2.275	35	7	30687	15293
Chickens	Broiler Breeder Pullets	Solid Manure Shed	20%		0.040	2.975	168	2	0	0
Chickens	Broiler Breeder Hens	Solid Manure Shed	20%		2.975	3.950	245	1	0	0
Eggs	White Layer Pullets	Solid Manure Shed	20%	9500	0.040	1.355	133	2	3262	2355
Eggs	White Layer Hens	Solid Manure Shed	20%	19000	1.355	1.875	357	1	20109	16633
Eggs	White Breeder Pullets	Solid Manure Shed	20%		0.040	1.240	119	2	0	0
Eggs	White Breeder Hens	Solid Manure Shed	20%		1.240	1.670	350	1	0	0
Eggs	Brown Layer Pullets	Solid Manure Shed	20%		0.040	1.630	133	2	0	0
Eggs	Brown Layer Hens	Solid Manure Shed	20%		1.630	2.025	357	1	0	0
Eggs	Brown Breeder Pullets	Solid Manure Shed	20%		0.040	1.407	119	2	0	0
Eggs	Brown Breeder Hens	Solid Manure Shed	20%		1.407	1.950	350	1	0	0
Turkey	Broiler Turkey (0-9 wks)	Solid Manure Shed	20%		0.070	4.950	63	5	0	0
Turkey	Hen Turkey (0-11 wks)	Solid Manure Shed	20%		0.070	6.650	77	4	0	0
Turkey	Heavy Hens (0-14 wks)	Solid Manure Shed	20%		0.070	9.750	98	3	0	0
Turkey	Toms (0-14 wks)	Solid Manure Shed	20%		0.070	13.000	98	3	0	0
Turkey	Breeding Hen Growers (0-30 wks)	Solid Manure Shed	20%		0.070	12.900	210	1	0	0
Turkey	Breeding Hens (31-End of Lay)	Solid Manure Shed	20%		12.900	12.400	252	1	0	0
Turkey	Breeding Tom Grower (0-17 wks)	Solid Manure Shed	20%		0.070	15.770	119	1	0	0
Turkey	Breeding Tom Grower (17-30 wks)	Solid Manure Shed	20%		15.770	25.000	91	1	0	0
Turkey	Breeding Tom (31-End of Lay)	Solid Manure Shed	20%		25.000	28.180	252	1	0	0

Last Revised November 26, 2019



1c - Dairy

Operation Name:

Type	Storage Type	Volatilization	Animal Numbers	N Excreted Per Herd Adjusted for Storage N Loss (lb N/yr/herd)	P2O5 Excreted Per Herd Per Year (lb P2O5/year)
Mature Cows, plus associated livestock	Liquid Uncovered Earthen	30%	10	3119.3	1542.0

Last Revised October 18, 2019

1b - Beef Operation Name: **James Valley Colony**

Operation Type	Animal Category	Storage Type	Volatilization	Animal Numbers	Weight In (lb)	Weight Out (lb)	Days per Cycle (Days)	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 (lb P2O5/year)
Cow Calf	Mature Cows and Bred Heifers, plus associated livestock	Field Storage	40%	n/a	n/a	n/a	n/a	n/a	n/a	n/a	0	0
Feeder	Feedlot Cattle - long keep	Field Storage	40%	75	581	1300	240	1.0	3.00	240	3254	1810
Feeder	Feedlot Cattle - short keep	Field Storage	40%	975	975	1300	116	1.0	2.80	116	0	0
Feeder	Backgrounders - pasture	Field Storage	40%	793	975	975	105	1.0	1.73	105	0	0
Feeder	Backgrounders - confined	Field Storage	40%	500	793	793	180	1.0	1.63	180	0	0

Last Revised January 21, 2015



1a - Pigs

Operation Name: James Valley Colony

Operation Type	Storage Type	Volatilization	Animal Numbers (Places)	N Excreted Per Herd Adjusted for Storage N Loss (lb/yr/herd)	P2O5 Excreted Per Herd Per Year (lb/yr/herd)
Gilts (Purchased) Boars	Liquid Uncovered Earthen Liquid Uncovered Earthen	30% 30%		0 0	0 0
Weanlings/Nursery Growers/Finishers	Liquid Uncovered Earthen Liquid Uncovered Earthen	30% 30%		0 0	0 0
Sows, farrow to 6.2 kg Sows, farrow to 28 kg Sows, farrow to finish	Liquid Uncovered Earthen Liquid Uncovered Earthen Liquid Uncovered Earthen	30% 30% 30%	650	176494	102516

Last Revised February 12, 2020

# Manure Application Field Characteristics Table

Field ID	A Legal description	B Rural Municipality	C O/C/L/A	D Setbacks, including features	E Net acreage for manure application	F Agriculture capability class and subclass	G Soil Phosphorus (ppm Olsen P) 0-6 inches
2	WSE 25-10-3W	Cartier	O	3m: Property line, drain	429	2W, 3W, 2W-3W	35
3	E 23-10-3W	Cartier	O	3m: Property line, hwy 248	353	2W-3W, 3W-3NW	11
4	24-10-3W	Cartier	O	3m: Property line, DRAIN	535	2W, 2W-3W	15
5	23-10-2W	Cartier	O	3m: Property line	539	2W-3W, 3W-3NW	17
6	S1/2 of N 15-10-3W	Cartier	O	3m: Property line	137	3W-3NW	37
7	S1/2 NW 14-10-3W	Cartier	O	3m: Property line	29	2W	15
8	S 16-10-3W	Cartier	O	3m: Property line	299	2W-3W, 3W-3NW	14
9	S 15-10-3W	Cartier	O	3m: Property line	301	2W-3W, 3W-3NW	42
10	S 14-10-3W	Cartier	O	3m: Property line	232	2W-3W, 3W	47
11	N1/2 of NE 12-10-3W	Cartier	O	3m: Property line	78	2W-3W	27
12	NW 7-10-3W	Cartier	O	3m: Property line	158	2W-3W, 3W-3NW	37
13	NW+E 9-10-3W	Cartier	O	3m: Property line	475	2W-3W, 3W-3NW	56
14	S+S1/2 of NE 10-10-3W	Cartier	O	3m: Property line	396	2W-3W, 3W-3NW	47
15	11-10-3W	Cartier	O	3m: Property line	612	2W-3W	26
16	SW 12-10-3W	Cartier	O	3m: Property line	147	2W-3W, 3W	19
17	NE 3-10-3W	Cartier	O	3m: Property line, hwy 248	151	2W-3W, 3W-3NW	13
18	NE 2-10-3W	Cartier	O	3m: Property line, drain	73	3W-3NW	33
19	N +SE 1-10-3W	Cartier	O	3m: Property line, drain	335	2W-3W, 3W	19

Total net acreage for manure application: 5279

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





# Manure Application Field Characteristics Table

Field ID	A Legal description	B Rural Municipality	C O/C/L/A	D Setbacks, including features	E Net acreage for manure application	F Agriculture capability class and subclass	G Soil Phosphorus (ppm Olsen P) 0-6 inches
20	SE+S1/2 of NE 25-9-3W	Grey	O	3m: Property line	227	2W-3W, 3W-3NW, 3W	7
21	N 24-9-3W	Grey	O	3m: Property line	212	2W, 3W	6.8
22	S1/2 of SW 23-9-3W	Grey	O	3m: Property line	71	2W-3W, 3W	13
23	N+N1/2 SW 15-9-3W	Grey	O	3m: Property line	361	2W-3W, 3W	33
24	N1/4 17-9-3W	Grey	R	3m: Property line	157	2W-3W, 3W	8
25	E 1-9-4W	Grey	R	3m: Property line, hwy 2	325	2W-3W, 2W	20
26	N1/2 NW 5-9-3W	Grey	O	3m: Property line	78	3W	12
27	SE+W1/2 NE 34-8-3W	Grey	R	3m: Property line, hwy 248	236	3W	10
28	W 18-9-2W	Macdonald	O	3m: Property line	358	2W-3W, 3W-3NW	8.2

**Total net acreage for manure application:** 2,025

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



# Manure Application Field Characteristics Table

Field ID	A Legal description	B Rural Municipality	C O/C/L/A	D Setbacks, including features	E Net acreage for manure application	F Agriculture capability class and subclass	G Soil Phosphorus (ppm Olsen P) 0-6 inches
29	N1/2 of N 15-10-3W	Cartier	O	3m: Property line	142	3W-3NW, 2W	
1	26-10-3W	Cartier	O	3m: Property Line, drain	563	2W, 3W, 2W-3W, 3W-3NW	

Total net acreage for manure application: 705

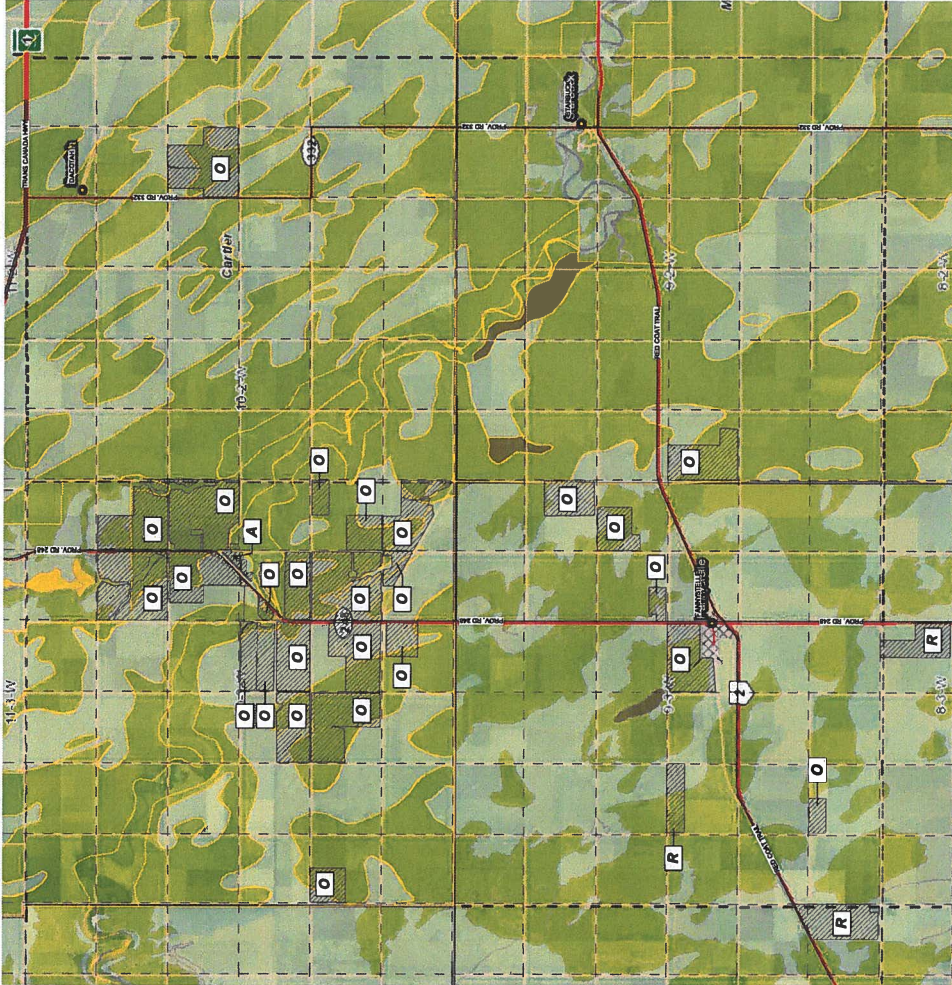
- A. Enter the legal description for each parcel of land that will receive manure: Sec, Twp, Rge or River Lot (including parish).
- B. Identify the Rural Municipality in which the parcel is located.
- C. Indicate how the land has been secured for manure application: O – Own / C – Crown / L – Lease /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








- A** PROJECT SITE  
**R** RENTED  
**O** OWNED
- SOIL CLASS 1
  - SOIL CLASS 2
  - SOIL CLASS 3
  - SOIL CLASS 4
  - SOIL CLASS 5



PROJECT NAME:	Tech Review
PROJECT NUMBER:	2311-120
DRAWN BY:	AH
CHECKED BY:	DE
DATE:	12/13/23

CLIENT NAME:	James Valley Colony
PROJECT LOCATION:	NE-14-10-3W, Elle, MB
<b>SOUTH-MAN</b> DESIGN GROUP LTD	
<small>Unit 6 - 851 Lakeside Blvd., Winnipeg, MB, R2L 3K4          Phone: 204-371-7314   Fax: 204-223-6289          www.south-mandesign.com</small>	
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PROJECT NAME:	Tech Review
PROJECT NUMBER:	2311-120
DRAWN BY:	AH
CHECKED BY:	DE
DATE:	12/13/23

  
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