

1c - Dairy

Operation Name:

[Redacted]

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%	625	194953.9	96372.2

Last Revised October 18, 2019

2 - Crop Rotation										
Operation Name: Enter the operation name on the livestock tab(s)										
Crop	Removal		Uptake		Yield	Units	Acreage	Removal		Uptake
	P2O5	N	N	Units				(lb)	(lb)	(lb)
Alfalfa	13.8	58	58	lb/ton	2.354	ton/ac	343	11142	46830	46830
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	51.7	bu/ac	458	24626	45700	75535
Corn Grain	0.44	0.97	1.53	lb/bu		bu/ac		-	-	-
Corn Silage	12.7	31.2	31.2	lb/ton	6.406	tons/ac	229	18631	45770	45770
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	139.3	bu/ac	229	8294	19778	34133
Pasture (grazed)	10	34.2	34.2	lb/ton	0.5	ton/ac		-	-	-
Peas	0.69	2.34	3.06	lb/bu	52	bu/ac	114	4090	13872	18140
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	33.5	bu/ac	229	6444	29689	39892
Sunflower	1.1	2.8		lb/cwt		cwt/ac		-	-	-
Wheat - Spring	0.59	1.5	2.11	lb/bu	73.3	bu/ac	686	29667	75426	106099
Wheat - Winter	0.51	1.04	1.35	lb/bu		bu/ac		-	-	-
<b>Total Acres</b>							2288	102894	277064	366398
<b>Estimated Average Removal/Uptake (lb/ac)</b>								45.0	121.1	160.1
<b>Acres in Hanover and La Broquerie</b>										
<b>Proportion in Hanover or La Broquerie</b>								0%		
<b>Additional Acres</b>										
<b>Crop Planned on Additional Acres</b>										
<b>Total Acreage</b>							2288			
<b>*Notes:</b>	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.									

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**3 - Farm Excretion**

**Operation Name:** Enter the operation name on the livestock tab(s)

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	0	0
<b>Beef</b>	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
<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	194954	96372
<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	0	0
	Broiler Breeder Pullets	0	0
	Broiler Breeder Hens	0	0
<b>Layers</b>	White Layer Pullets	0	0
	White Layer Hens	0	0
	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>194954</b>

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

**4 - Land Base Summary****Operation Name:** Enter the operation name on the livestock tab(s)

<b>Nutrients Excreted</b>		<b>lbs</b>
Nitrogen		194954
Phosphorus (P2O5)		96372
<b>Crop Nutrient Use</b>		<b>lb/ac</b>
Average Crop N Uptake		160.1
Average Crop Phosphorus (P2O5) Removal		45.0
Operation-specific Phosphorus (P2O5) Allowance		89.9
<b>Land Available</b>		<b>2288</b>
<b>Land Base Required</b>		<b>acres</b>
Acres for Nitrogen		1217
Acres for Phosphorus (P2O5)		1071
<b>Phosphorus Balance</b>		<b>acres</b>
Acres for Phosphorus Balance (1X)		2143

**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.**

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**CROP ROTATION TABLE**

A	B	C	D	E
Expected Crops in the Rotation	Acreage	Historical Yield	Units	Source of Yield Information
Red Spring Wheat	686	73.3	Bus./Acre	MASC Crop Insurance IPI
Silage Corn	229	6.406	Ton/acre	MASC Crop Insurance IPI
Soybeans	229	33.5	Bus./Acre	MASC Crop Insurance IPI
Argentine Canola	458	51.7	Bus./Acre	MASC Crop Insurance IPI
Oats	229	139.3	Bus./Acre	MASC Crop Insurance IPI
Peas	114	52	Bus./Acre	MASC Crop Insurance IPI
Alfalfa	343	2.354	Ton/acre	MASC yield by RM and soil type
<b>Total Net Acreage for Manure Application</b>	<b>2288</b>			

- 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.