

1a - Pigs

Operation Name:

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)	Liquid Uncovered Earthen	30%		0	0
Boars	Liquid Uncovered Earthen	30%		0	0
Weanlings/Nursery	Liquid Uncovered Earthen	30%		0	0
Growers/Finishers	Liquid Uncovered Earthen	30%	10200	250709	137762
Sows, farrow to 6.2 kg	Liquid Uncovered Earthen	30%		0	0
Sows, farrow to 28 kg	Liquid Uncovered Earthen	30%		0	0
Sows, farrow to finish	Liquid Uncovered Earthen	30%		0	0

Last Revised February 12, 2020

**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				P2O5 (lb)	N (lb)	N (lb)
Alfalfa	13.8	58	58	lb/ton		ton/ac		-	-	-
Barley Grain	0.42	0.97	1.39	lb/bu	78.4	bu/ac	265	8726	20153	28879
Barley Silage	11.8	34.4	34.4	lb/ton		ton/ac		-	-	-
Canola	1.04	1.93	3.19	lb/bu	36.6	bu/ac	1060	40348	74876	123759
Corn Grain	0.44	0.97	1.53	lb/bu		bu/ac		-	-	-
Corn Silage	12.7	31.2	31.2	lb/ton		tons/ac		-	-	-
Dry Edible Beans	1.39	4.17		lb/cwt		cwt/ac		-	-	-
Fababeans	1.79	5.02	8.4	lb/cwt		cwt/ac		-	-	-
Flax	0.65	2.13	2.88	lb/bu		bu/ac		-	-	-
Grass Hay	10	34.2	34.2	lb/ton		tons/ac		-	-	-
Lentils	1.03	3.39	5.08	lb/cwt		cwt/ac		-	-	-
Oats	0.26	0.62	1.07	lb/bu	98.8	bu/ac	133	3417	8147	14060
Pasture (grazed)	10	34.2	34.2	lb/ton	0.5	ton/ac		-	-	-
Peas	0.69	2.34	3.06	lb/bu		bu/ac		-	-	-
Potatoes	0.09	0.32	0.57	lb/cwt		cwt/ac		-	-	-
Rye	0.45	1.06	1.67	lb/bu		bu/ac		-	-	-
Soybeans	0.84	3.87	5.2	lb/bu	37.3	bu/ac	265	8303	38253	51399
Sunflower	1.1	2.8		lb/cwt		cwt/ac		-	-	-
Wheat - Spring	0.59	1.5	2.11	lb/bu	54.1	bu/ac	928	29621	75307	105932
Wheat - Winter	0.51	1.04	1.35	lb/bu		bu/ac		-	-	-
<b>Total Acres</b>							2651	90414	216736	324030
<b>Estimated Average Removal/Uptake (lb/ac)</b>								34.1	81.8	122.2
<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>							2651			
<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.									

**3 - Farm Excretion**

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

Species	Animal Category/Operation type	N (lb/year)	P205 (lb/year)
<b>Pigs</b>	Boars	0	0
	Weanlings/Nursery	0	0
	Growers/Finishers	250709	137762
	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	0	0
<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>250709</b>	<b>137762</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		250709
Phosphorus (P2O5)		137762
<b>Crop Nutrient Use</b>		<b>lb/ac</b>
Average Crop N Uptake		122.2
Average Crop Phosphorus (P2O5) Removal		34.1
Operation-specific Phosphorus (P2O5) Allowance		68.2
<b>Land Available</b>		<b>2651</b>
<b>Land Base Required</b>		<b>acres</b>
Acres for Nitrogen		2051
Acres for Phosphorus (P2O5)		2020
<b>Phosphorus Balance</b>		<b>acres</b>
Acres for Phosphorus Balance (1X)		4039

**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

**CROP ROTATION TABLE**

A	B	C	D	E
Expected Crops in the Rotation	Acreage	Historical Yield	Units	Source of Yield Information
Argentine Canola	1060	36.6	Bu./Acre	MASC (Fertilizer Data Browser by RM & Soil type)
Red Spring Wheat	928	54.1	Bu./Acre	MASC (Fertilizer Data Browser by RM & Soil type)
Barley	265	78.4	Bu./Acre	MASC (Fertilizer Data Browser by RM & Soil type)
Soybeans	265	37.3	Bu./Acre	MASC (Fertilizer Data Browser by RM & Soil type)
Oats	133	98.8	Bu./Acre	MASC (Fertilizer Data Browser by RM & Soil type)
<b>Total Net Acreage for Manure Application</b>	<b>2651</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.