

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%		0	0
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%	1100	298683	173489

Last Revised February 12, 2020

1e - Poultry

Operation Name:

Species / Commodity	Type of Operation	Storage Type	Volatilization	Bird Places	Weight in kg	Weight out kg	Days on Feed	Cycles per Year	N	
									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	Field Storage	40%	220000	0.043	2.275	35	7	115075	76465
Chickens	Broiler Breeder Pullets	Solid Manure Shed	20%		0.040	2.975	168	2	0	0
Chickens	Broiler Breeder Hens	Field Storage	40%	20000	2.975	3.950	245	1	17617	17835
Eggs	White Layer Pullets	Solid Manure Shed	20%		0.040	1.355	133	2	0	0
Eggs	White Layer Hens	Solid Manure Shed	20%		1.355	1.875	357	1	0	0
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)	Manure Pack (No Field Storage)	20%		0.070	6.650	77	4	0	0
Turkey	Heavy Hens (0-14 wks)	Field Storage	40%	10000	0.070	9.750	98	3	18365	13966
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

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	81.9	bu/ac	1129	38835	89691	128526
Barley Silage	11.8	34.4	34.4	lb/ton		ton/ac		-	-	-
Canola	1.04	1.93	3.19	lb/bu	40.9	bu/ac	3000	127608	236811	391413
Corn Grain	0.44	0.97	1.53	lb/bu	127.3	bu/ac	1500	84018	185222	292154
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	119.2	bu/ac	1000	30992	73904	127544
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	34.9	bu/ac	1000	29316	135063	181480
Sunflower	1.1	2.8		lb/cwt		cwt/ac		-	-	-
Wheat - Spring	0.59	1.5	2.11	lb/bu	60.3	bu/ac	2000	71154	180900	254466
Wheat - Winter	0.51	1.04	1.35	lb/bu		bu/ac		-	-	-
Total Acres							9629	381923	901591	1375583
Estimated Average Removal/Uptake (lb/ac)								39.7	93.6	142.9
Acres in Hanover and La Broquerie										
Proportion in Hanover or La Broquerie								0%		
Additional Acres										
Crop Planned on Additional Acres										
Total Acreage							9629			
*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.									

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)
Pigs	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	298683	173489
Beef	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
	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
Sheep	Ewes	0	0
	Replacement Ewes	0	0
	Rams	0	0
	Lambs	0	0
	Ewes, plus assoc livestock	0	0
	Feeder	0	0
Chickens	Light Broilers	0	0
	Broilers	115075	76465
	Broiler Breeder Pullets	0	0
	Broiler Breeder Hens	17617	17835
Layers	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
Turkeys	Broiler Turkey (0-9 wks)	0	0
	Hen Turkey (0-11 wks)	0	0
	Heavy Hens (0-14 wks)	18365	13966
	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
Total		449740	281755

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)

Nutrients Excreted		lbs
Nitrogen		449740
Phosphorus (P2O5)		281755
Crop Nutrient Use		lb/ac
Average Crop N Uptake		142.9
Average Crop Phosphorus (P2O5) Removal		39.7
Operation-specific Phosphorus (P2O5) Allowance		79.3
Land Available		9629
Land Base Required		acres
Acres for Nitrogen		3148
Acres for Phosphorus (P2O5)		3552
Phosphorus Balance		acres
Acres for Phosphorus Balance (1X)		7104

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
Grain Corn	1500	127.3	bu./acre	MASC (Variety Yield Data Browser by RM's)
Argentine Canola	3000	40.9	bu./acre	MASC (Variety Yield Data Browser by RM's)
Red Spring Wheat	2000	60.3	bu./acre	MASC (Variety Yield Data Browser by RM's)
Soybeans	1000	34.9	bu./acre	MASC (Variety Yield Data Browser by RM's)
Feed Barley	1129	81.9	bu./acre	MASC (Variety Yield Data Browser by RM's)
Oats	1000	119.2	bu./acre	MASC (Variety Yield Data Browser by RM's)
Total Net Acreage for Manure Application	9629			

- 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.