

1a - Pigs

Operation Name: **Norwood Colony Farms Ltd.**

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%	2000	75093	54233
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

1b - Beef

Operation Name: **Norwood Colony Farms Ltd.**

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%	500	n/a	n/a	n/a	n/a	n/a	n/a	67227	27814
Feeder	Feedlot Cattle - long keep	Field Storage	40%		581	1300	240	1.0	3.00	240	0	0
Feeder	Feedlot Cattle - short keep	Field Storage	40%		975	1300	116	1.0	2.80	116	0	0
Feeder	Backgrounders - pasture	Field Storage	40%		793	975	105	1.0	1.73	105	0	0
Feeder	Backgrounders - confined	Field Storage	40%		500	793	180	1.0	1.63	180	0	0

Last Revised January 21, 2015

1c - Dairy

Operation Name:

Norwood Colony Farms Ltd.

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 Steel/Concrete	20%	12	4277.8	1850.3

Last Revised October 18, 2019

1d -Sheep

1d -Sheep										
Operation Name		Norwood Colony Farms Ltd.								
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 lb/flock/yr
				lb	lb	lb				
Ewes	Field Storage	40%		120	170	145	365	1	0	0
Replacement Ewes	Field Storage	40%		45	80	63	210	1	0	0
Rams	Field Storage	40%		100	200	150	365	1	0	0
Lambs	Field Storage	40%		8	45	27	70	1.4	0	0
Ewes, plus assoc livestock	Field Storage	40%	150	n/a	n/a	n/a	n/a	n/a	2597	1551
Feeder	Field Storage	40%		45	100	73	365	1	0	0

1e - Poultry

Operation Name: **Norwood Colony Farms Ltd.**

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%	50000	0.043	2.275	35	7	34871	17378
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%	30000	0.040	1.355	133	2	10300	7438
Eggs	White Layer Hens	Solid Manure Shed	20%	60000	1.355	1.875	357	1	63501	52524
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%	500	0.070	9.750	98	3	1224	698
Turkey	Toms (0-14 wks)	Solid Manure Shed	20%	500	0.070	13.000	98	3	1460	904
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:

Norwood Colony Farms Ltd.

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	79.9	bu/ac	995	33390	77115	110506
Barley Silage	11.8	34.4	34.4	lb/ton		ton/ac		-	-	-
Canola	1.04	1.93	3.19	lb/bu	36.4	bu/ac	1330	50348	93435	154434
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	16.67	cwt/ac	995	23055	69166	-
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	80.7	bu/ac	992	36024	84858	133691
Soybeans	0.84	3.87	5.2	lb/bu	34.8	bu/ac	995	29086	134003	180055
Sunflower	1.1	2.8		lb/cwt		cwt/ac		-	-	-
Wheat - Spring	0.59	1.5	2.11	lb/bu	60	bu/ac	1330	47082	119700	168378
Wheat - Winter	0.51	1.04	1.35	lb/bu		bu/ac		-	-	-
Total Acres							6637	218986	578277	747064
Estimated Average Removal/Uptake (lb/ac)								33.0	87.1	112.6
Acres in Hanover and La Broquerie										
Proportion in Hanover or La Broquerie							0%			
Additional Acres										
Crop Planned on Additional Acres										
Total Acreage							6637			
*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.									

Last revised December 18, 2017

3 - Farm Excretion

Operation Name:

Norwood Colony Farms Ltd.

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	75093	54233
	Sows, farrow to 23 kg	0	0
	Sows, farrow to finish	0	0
Beef	Mature Cows and Bred Heifers, plus associated livestock	67227	27814
	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	4278	1850
Sheep	Ewes	0	0
	Replacement Ewes	0	0
	Rams	0	0
	Lambs	0	0
	Ewes, plus assoc livestock	2597	1551
	Feeder	0	0
Chickens	Light Broilers	0	0
	Broilers	34871	17378
	Broiler Breeder Pullets	0	0
	Broiler Breeder Hens	0	0
Layers	White Layer Pullets	10300	7438
	White Layer Hens	63501	52524
	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)	1224	698
	Toms (0-14 wks)	1460	904
	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		260552	164392

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:** Norwood Colony Farms Ltd.

Nutrients Excreted		lbs
Nitrogen		260552
Phosphorus (P2O5)		164392
Crop Nutrient Use		lb/ac
Average Crop N Uptake		112.6
Average Crop Phosphorus (P2O5) Removal		33.0
Operation-specific Phosphorus (P2O5) Allowance		66.0
Land Available		6637
Land Base Required		acres
Acres for Nitrogen		2315
Acres for Phosphorus (P2O5)		2491
Phosphorus Balance		acres
Acres for Phosphorus Balance (1X)		4982

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