

Manitoba Land Base Calculator

Colour Conventions:

-  Farm specific data can be entered in the yellow cells of each tab. Where appropriate, default values have been provided but can be changed.
-  Fixed data are provided in the grey cells of each tab.
-  Calculated values are shown in the green cells of each tab.
-  **The land base required for nitrogen (N) and phosphorus (P2O5) are provided in the amber cells on tab 4.**

Data Entry and Tab Information:

Enter the operation name on all of the livestock tabs (1a to 1e) associated with your farm.

Enter all of the livestock for your farm and associated data in the yellow cells under tabs 1a to 1e.

Enter all of the crop rotation data on tab 2. Long-term crop yield averages using MASC records are required for Provincial Technical Review Site Assessments.

Total nitrogen (N) and total phosphorus (P2O5) excreted by the livestock are summarized on tab 3.

Nutrient excretion, crop nutrient use and acres required for nitrogen (N) and phosphorus (P2O5) are summarized on tab 4.

For assistance, contact:

Clay Sawka, Nutrient Management Specialist, Manitoba Agriculture and Resource Development, (204) 750-3066

Petra Loro, Livestock Environment Specialist, Manitoba Agriculture and Resource Development, (204) 918-0325

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1c - Dairy

Operation Name:

La Bass Holsteins

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%	750	233944.7	115646.7

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2 - Crop Rotation

Operation Name:

La Bass Holsteins

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	2.507	ton/ac	895	30964	130138	130138
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	33.8	bu/ac	200	7030	13047	21564
Corn Grain	0.44	0.97	1.53	lb/bu	135.7	bu/ac	707	42214	93062	146788
Corn Silage	12.7	31.2	31.2	lb/ton	4.49	tons/ac	634	36153	88816	88816
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		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		bu/ac		-	-	-
Sunflower	1.1	2.8		lb/cwt		cwt/ac		-	-	-
Wheat - Spring	0.59	1.5	2.11	lb/bu		bu/ac		-	-	-
Wheat - Winter	0.51	1.04	1.35	lb/bu		bu/ac		-	-	-
Total Acres							2436	116360	325063	387307
Estimated Average Removal/Uptake (lb/ac)								47.8	133.4	159.0
Acres in Hanover and La Broquerie							1949			
Proportion in Hanover or La Broquerie							80%			
Additional Acres										
Crop Planned on Additional Acres										
Total Acreage							2436			
*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:		La Bass Holsteins	
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	0	0
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	233945	115647
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	0	0
	Broiler Breeder Pullets	0	0
	Broiler Breeder Hens	0	0
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)	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
	Total	233945	115647
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:****La Bass Holsteins**

Nutrients Excreted	lbs
Nitrogen	233945
Phosphorus (P2O5)	115647
Crop Nutrient Use	
	lb/ac
Average Crop N Uptake	159.0
Average Crop Phosphorus (P2O5) Removal	47.8
Operation-specific Phosphorus (P2O5) Allowance	57.3
Land Available	2436
Land Base Required	
	acres
Acres for Nitrogen	1471
Acres for Phosphorus (P2O5)	2018
Phosphorus Balance	
	acres
Acres for Phosphorus Balance (1X)	2421

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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