
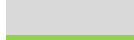




## Manitoba Land Base Calculator

### 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

Last revised November 26, 2019

1b - Beef

Operation Name: 

Rocking U Feeders

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%		n/a	n/a	n/a	n/a	n/a	n/a	0	0
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%	14700	500	793	180	2.0	1.63	360	841093	388786

2 - Crop Rotation										
Operation Name:					Rocking U Feeders					
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	2.52	ton/ac	650	22604	95004	95004
Barley Grain	0.42	0.97	1.39	lb/bu	71.6	bu/ac	529	15908	36740	52648
Barley Silage	11.8	34.4	34.4	lb/ton	4.5	ton/ac	204	10832	31579	31579
Canola	1.04	1.93	3.19	lb/bu	40.4	bu/ac	1004	42184	78284	129392
Corn Grain	0.44	0.97	1.53	lb/bu	130.6	bu/ac	463	26606	58654	92516
Corn Silage	12.7	31.2	31.2	lb/ton	6.1	tons/ac	1546	119769	294235	294235
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	98.1	bu/ac	428	10917	26032	44926
Pasture (grazed)	10	34.2	34.2	lb/ton	0.5	ton/ac	285	1425	4874	4874
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	187	cwt/ac	200	41140	104720	-
Wheat - Spring	0.59	1.5	2.11	lb/bu	59.6	bu/ac	775	27252	69285	97461
Wheat - Winter	0.51	1.04	1.35	lb/bu		bu/ac		-	-	-
Total Acres							6084	318637	799406	842634
Estimated Average Removal/Uptake (lb/ac)								52.4	131.4	138.5
Acres in Hanover and La Broquerie										
Proportion in Hanover or La Broquerie							0%			
Additional Acres										
Crop Planned on Additional Acres										
Total Acreage							6084			
<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.										

Last revised December 18, 2017

3 - Farm Excretion			
Operation Name:		Rocking U Feeders	
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	841093	388786
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	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
	<b>Total</b>	<b>841093</b>	<b>388786</b>
<b>Note:</b> 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:	Rocking U Feeders
Nutrients Excreted	lbs
Nitrogen	841093
Phosphorus (P2O5)	388786
Crop Nutrient Use	lb/ac
Average Crop N Uptake	138.5
Average Crop Phosphorus (P2O5) Removal	52.4
Operation-specific Phosphorus (P2O5) Allowance	104.7
Land Available	
	6084
Land Base Required	acres
Acres for Nitrogen	6073
Acres for Phosphorus (P2O5)	3712
Phosphorus Balance	acres
Acres for Phosphorus Balance (1X)	7423
<b>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.</b>	

Last revised November 26, 2019