

Nutrient Management

April 2023

Solid Manure Production Data for Livestock in British Columbia

The amount of solid manure generated by livestock for various periods of time is shown in the table below. These numbers are used in the B.C. Nutrient Management Calculator and are given on a per animal basis. Note that the solid manure generation amount includes bedding, feed, and other materials associated with solid manure collection.

This table is intended to inform decisions by Nutrient Management Planners and agricultural consultants for planning and comparison purposes.

Data used in the B.C. Nutrient Management Calculator originates from both the B.C. Environmental Farm Plan Reference Guide and the Ontario Ministry of Agriculture, Food and Rural Affairs' Agricultural Planning Tools Suite (AgriSuite) system.

How to use this data

In order to calculate the amount of solid manure generated, follow the steps below:

- 1) Find the Animal Class and Animal in question in the two columns on the leftmost side of the table
- 2) Determine the amount of time (days, months, etc.) and number of animals that are generating manure
- 3) Multiply the number of animals by the amount of time in question

For example, if you are housing 10 dry dairy cows for 2 months:

Manure generated = 10 dry cows * 6266 lbs per month * 2 months = 125,320 lbs

Solid manure generation by various livestock for daily, monthly, six month, and yearly time periods. All data is given on a per animal basis unless otherwise indicated.

Animal class	Animal	Daily		Monthly		6 months		Yearly	
		lb	kg	lb	kg	ton	tonne	ton	tonne
Beef	Cows (1300 lb), including Calves	60.1	27.2	1826	828	5.5	5.0	11.0	9.9
Beef	Backgrounding to Grass (400-600 lb)	24.3	11.0	739	335	2.2	2.0	4.4	4.0
Beef	Backgrounding to Feedlot (400-850 lb)	28.6	13.0	870	395	2.6	2.4	5.2	4.7
Beef	Finishing: Yearlings (850-1400 lb)	50.0	22.7	1521	690	4.6	4.1	9.1	8.3
Beef	Finishing: Feeders (550-1250 lb)	41.0	18.6	1248	566	3.7	3.4	7.5	6.8
Beef	Finishing: Short Keep (300-900 lb)	54.0	24.5	1643	745	4.9	4.5	9.9	8.9
Dairy	Calves (0 to 3 months old)	15.5	7.1	473	214	1.4	1.3	2.8	2.6
Dairy	Calves (3 to 6 months old)	31.1	14.1	945	429	2.8	2.6	5.7	5.1
Dairy	Heifers (6 to 15 months old)	71.5	32.4	2175	986	6.5	5.9	13.0	11.8
Dairy	Heifers (15 to 26 months old)	123.5	56.0	3756	1704	11.3	10.2	22.5	20.4
Dairy	Dry Cow	206.0	93.4	6266	2842	18.8	17.1	37.6	34.1
Dairy	Milking Cow	221.3	100.4	6730	3053	20.2	18.3	40.4	36.6
Poultry (per 100 birds)	Pullets - Cage Housing	7.2	3.3	219	99.3	0.7	0.6	1.3	1.2
Poultry (per 100 birds)	Pullets - Floor Housing	5.4	2.5	164	74.5	0.5	0.4	1.0	0.9

Animal class	Animal	Daily		Monthly		6 months		Yearly	
		lb	kg	lb	kg	ton	tonne	ton	tonne
Poultry (per 100 birds)	Layer	14.3	6.5	435	197	1.3	1.2	2.6	2.4
Poultry (per 100 birds)	Broiler Breeder Layer - Cage Housing	14.7	6.7	447	203	1.3	1.2	2.7	2.4
Poultry (per 100 birds)	Broiler Breeder Layer - Floor Housing	18.8	8.5	572	259	1.7	1.6	3.4	3.1
Poultry (per 100 birds)	Broiler Breeder Pullets	7.1	3.2	216	98.0	0.6	0.6	1.3	1.2
Poultry (per 100 birds)	Broiler Chicken (6.5 flocks/year)	6.6	3.0	202	91.5	0.6	0.5	1.2	1.1
Poultry (per 100 birds)	Roaster Chicken	9.2	4.2	280	127	0.8	0.8	1.7	1.5
Poultry (per 100 birds)	Turkey Broiler	25.0	11.3	760	345	2.3	2.1	4.6	4.1
Poultry (per 100 birds)	Turkey Heavy Hen	35.4	16.1	1077	488	3.2	2.9	6.5	5.9
Poultry (per 100 birds)	Turkey Heavy Tom	40.6	18.4	1235	560	3.7	3.4	7.4	6.7
Poultry (per 100 birds)	Ducks	14.1	6.4	429	195	1.3	1.2	2.6	2.3
Swine	Dry Sow, Boar, or Gilts	19.2	8.7	585	265	1.8	1.6	3.5	3.2
Goats	Goats	4.6	2.1	140	63.4	0.4	0.4	0.8	0.8
Horse	Horse	78.0	35.4	2373	1076	7.1	6.5	14.2	12.9
Rabbits	Doe and Litter	1.0	0.5	31	13.8	0.1	0.1	0.2	0.2
Sheep	Ewe or Ram	6.9	3.0	203	92.1	0.6	0.6	1.2	1.1