

# Nutrient Management

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## Manure Nutrient Content for Livestock in British Columbia

The nutrient content of manures used by B.C. Nutrient Management Calculator are shown in the table below. These values can be used to assist in nutrient management planning when the nutrient content of a stored manure is not known. All data is given on an as-received (wet) basis.

This table is intended to inform decisions by Nutrient Management Planners and agricultural consultants for planning and comparison purposes. Manure nutrient content for individual operations may differ based on many factors. Typical nutrient values in the following table are not intended to replace testing of manure at analytical laboratories for nutrient content.

Data used in the B.C. Nutrient Management Calculator originates from the [British Columbia Manure and Crop Nutrient](#) report, which synthesized a review of literature on manure nutrient contents from B.C., other provinces, and outside of Canada, field data and unpublished B.C Ministry of Agriculture and Food manure datasets.

To determine the amount of nutrient added to a field from a manure application, please refer to the B.C. Manure Nutrient Calculator or B.C. Nutrient Management Calculator, both of which can be found at [www.gov.bc.ca/NutrientManagement](http://www.gov.bc.ca/NutrientManagement).

Please note that total phosphorus (P) and potassium (K) values are given on an elemental basis. To convert to P and K on an oxide basis, use the following conversion:

- $\%P * 2.29 = \%P_2O_5$
- $\%K * 1.21 = \%K_2O$

**Nutrient content for different animal classes and manure types in British Columbia.**

<b>Animal Class</b>	<b>Manure Type</b>	<b>Solid/ Liquid</b>	<b>Moisture (%)</b>	<b>Total Nitrogen (%)</b>	<b>NH<sub>4</sub>-N (ppm)</b>	<b>P (%)</b>	<b>K (%)</b>
Beef	Beef, feedlot (dry)	Solid	≤72%	0.42	44	0.13	0.67
Beef	Beef, feedlot (moist)	Solid	72-82%	0.68	368	0.15	0.3
Beef	Beef, feedlot (general)	Liquid	82-90%	0.28	77	0.09	0.19
Poultry	Chicken, broiler (general)	Solid	50%	2.26	3423	0.91	1.14
Poultry	Chicken, broiler (manure fresh from barn)	Solid	25%	2.97	4078	1.05	1.04
Poultry	Chicken, broiler (manure aged outdoors)	Solid	70%	1.91	3095	0.8	1.14
Poultry	Chicken, broiler breeder	Solid	46%	1.25	3096	0.84	1.71
Poultry	Chicken, layer	Solid	50%	2.26	3889	1.13	1.51
Poultry	Turkey, (manure aged, ≥7 weeks out of barn)	Solid	70%	0.87	1281	0.44	0.59
Poultry	Turkey (manure fresh from barn, <7 weeks out of barn)	Solid	33%	1.79	2518	0.79	1.31
Dairy	Dairy, solid (dry)	Solid	≤72%	0.76	317	0.2	0.43
Dairy	Dairy, solid (moist)	Solid	72-82%	0.39	797	0.1	0.3
Dairy	Dairy, liquid (thick slurry)	Liquid	80-92%	0.4	1760	0.08	0.3
Dairy	Dairy, liquid (med. slurry)	Liquid	92-95%	0.28	1450	0.06	0.25
Dairy	Dairy, liquid (quite watery)	Liquid	95-98%	0.2	1110	0.04	0.16

<b>Animal Class</b>	<b>Manure Type</b>	<b>Solid/Liquid</b>	<b>Moisture (%)</b>	<b>Total</b>			
				<b>Nitrogen (%)</b>	<b>NH<sub>4</sub>-N (ppm)</b>	<b>P (%)</b>	<b>K (%)</b>
Dairy	Dairy, liquid (very watery)	Liquid	98-99%	0.13	730	0.02	0.12
Goats (dairy)	Goat (dairy)	Solid	65%	1.04	2818	0.28	1.03
Swine	Hog, liquid	Liquid	≥82%	0.33	2211	0.1	0.15
Swine	Hog, solid	Solid	<82%	0.86	525	0.42	0.5
Horses	Horse	Solid	<82%	0.32	268	0.09	0.25
Mink	Mink	Solid	54%	3.28	14151	1.82	0.79
Sheep	Sheep	Solid	68%	0.87	2784	0.34	0.76
Biosolids	Biosolids, anaerobically digested & dewatered	Solid	70%	1.47	2940	0.9	0.03