

Worksheet 1. Total manure nutrients excreted by a livestock operation based on feed rations.

This worksheet only considers feed intake and not feed disappearance. If excess feed ends up in the manure, then the amount of excess feed and its nutrients needs to be added to the nutrient excreted values for an accurate estimation.

Date: _____

I. Feed Nutrient Intake

Animal Group	A. Daily Feed Intake (lbs DM/day)	B. Feed Nutrient Concentration			C. Total Nutrient in Feed (lbs) = A X B	
		Protein	N ^a	P	N (lbs)	P (lbs)
<i>Beef Example</i>	27,000	0.135	0.0216	0.0035	583	94.5

II. Nutrients Retained

a. Animal

Animal Group	D. Number of Animals	E. Average Daily Gain	F. Live Weight Nutrient Concentration		G. Nutrients Retained by Animal (lbs) = D x E x F	
			N	P	N (lbs)	P (lbs)
<i>Beef Example</i>	1,000	4.08	0.016	0.0070	65.3	28.6
Beef			0.016	0.0070		
Dairy			0.012	0.0070		
Pork			0.023	0.0072		
Hens			0.022	0.0060		
Broilers			0.026	0.0060		
Turkeys			0.021	0.0060		

b. Animal Products

Animal Product	H. Production (lbs/day)	I. Animal Products Nutrient Concentration		J. Nutrients Retained by Animal Products (lbs) = H x I	
		N	P	N (lbs)	P (lbs)
Milk ^b		0.0050	0.0010		
Eggs ^b		0.0166	0.0021		

III. Nutrients Excreted

Animal Group	K. Days Fed per Year	L. Animal Nutrient Excreted in Elemental Form = K x (C - G) or = K x (C - J)		
		N (lbs/yr)	P (lbs/yr)	P ₂ O ₅ ^c (lbs/yr)
<i>Beef Example</i>	350	181,195	23,065	52,358

CALCULATION SPACE

^a N in feed = Protein) 6.25

^b N in milk = Protein) 6.28; N in eggs = Protein) 6.25; Assumes 3.2% and 10.4% protein in milk and eggs, respectively.

^c lbs P₂O₅ = lbs P x 2.29