

SOLIDS WORKSHEET 1 - ESTIMATING NUTRIENTS GENERATED PER CONFINEMENT PERIOD

1. Nutrients Generated (As Excreted)

Animal Type	Number of Animals	Percent Waste as Solid *	Average Weight (lbs.)	1000	Time Between Clean Outs/Land Applications ^b (Confinement)	= Animal Unit Days	N	P ₂ O ₅	K ₂ O
Beef (all cattle and calves)	10	100%	950.0	1000	50	475	0.34	162	
							0.21		100
							0.25		119
				1000		0			
				1000		0			
Step 1 Total =							162	100	119
							(lbs.)		

2. Manure Generated (As Excreted)

Animal Unit Days x Manure/A.U. = Volume of Manure (cu.ft.)

475	x	1	=	475
	x		=	
	x		=	

Step 2 Total = 475 cu.ft.

3. Total Tons

Step 2	/	Conversion Factor	=	Total Tons
475	/	33	=	14
	/		=	
	/		=	

Step 3 Total = 14 tons

4. Weighted Nutrient Values Before Nutrient Losses

Step 4 Total =

N	P ₂ O ₅	K ₂ O
11.2	6.9	8.3
(lbs./ton)		

^a The percent of the manure that is handled as a solid.

^b Confinement period should be adjusted for animals that are only in confinement for a portion of the day. For example if animals spend 16 hours on pasture and 8 hours in confinement, then the confinement period would be 1/3 of a day or 122 days/year.

The ten calves are brought in at 700lbs, and leave after 200 days at around 1200lbs. The average weight is 700 lbs. (start weight) + 1200 (end weight) = 1900 lbs./2= 950 lbs. (average).

At this operation the cattle spend a portion of their day grazing but their feed, water & shade is in a confined space. On average they spend six hours a day in confinement and the rest of their time grazing pasture. 6 (hours in confinement) X 200 (clean out occurs once a year)= 1200 (hours spent in confinement in one year)/ 24 (hours in a day)= 50 days (time in confinement).