



**Manure Production Rates (8-18)**

Manure Type	Description	lbs. manure/ AU/day	Cu. ft. manure/ AU/day
Dairy	lactating cow <sup>4</sup>		
	12,500 lbs milk/yr	81	1.3
	15,000 lbs milk/yr	88	1.4
	17,500 lbs milk/yr	94	1.5
	20,000 lbs milk/yr	100	1.6
	22,500 lbs milk/yr	106	1.7
	25,000 lbs milk/yr	113	1.8
	27,500 lbs milk/yr	119	1.9
	dry cow	82	1.3
	heifer	85	1.3
	bull <sup>2</sup>	70	1.1
veal	60	0.96	
Beef	feeder yearling (750 - 1100 lbs.) - high forage diet	59	0.95
	feeder yearling (750 - 1100 lbs.) - high energy diet	51	0.82
	calf (450 - 750 lbs.)	58	0.93
	cow	63	1.00
	bull	63	1.00
Swine	grower (up to 250 lbs.)	63	1.00
	replacement gilt	33	0.53
	sow - gestation	27	0.44
	sow - lactation	60	0.96
	boar	21	0.33
	nursing / nursery pig (0 - 65 lbs.)	65	1.03
Poultry (Free Range) <sup>6</sup>	broiler <sup>7</sup>	57	
	layers	61	
	turkeys	44	
	ducks <sup>3</sup> & geese <sup>1</sup>	55	
<b>Small Ruminants</b>	sheep and goats	40	0.63
<b>Equus spp.</b>	horses, mules <sup>2</sup> , donkeys <sup>2</sup> , zebras <sup>2</sup>	50	0.80
<b>Exotic Mammals</b>	llamas, alpacas, camels, yaks <sup>2</sup>	40	
	bison, water buffalo <sup>2</sup>	60	
	rabbit <sup>5</sup>	150	
	kangaroos <sup>1</sup>	40	
	monkeys <sup>1</sup>	33	
<b>Exotic Birds<sup>1</sup></b>	emu (breeding stock)	50	
	emu (young, growing birds)	40	
	ostrich	25	
	quail	80	
	guinea fowl, pheasants & peacocks	44	

Estimates are from the USDA/NRCS, *Agricultural Waste Management Field Handbook* unless otherwise indicated  
<sup>1</sup>Dr. Rosalina Angel and <sup>2</sup>Dr. Richard Kohn (UMCP Animal and Avian Science); <sup>3</sup>*Manure Characteristics*, MWPS-18; <sup>4</sup>USDA-NRCS Animal Waste Management Software Program; <sup>5</sup>William Lantz, Garrett Community College; <sup>6</sup>not appropriate for integrated poultry production<sup>7</sup> Updated ASABE Standard Manure Excretion Standard (2006)