



Manure Summary Report (2016 update)

Poultry, solid w/litter (broilers) – 2010 and 2015 (*analytes from 1101 samples from 2001 and 2002) 319 Samples

	N (total)	NH ₄ -N	P ₂ O ₅	K ₂ O	Ca*	Mg*	S*	Mn*	Zn*	Cu*	H ₂ O	liquid wt.	
			%		ppm							– % –	lbs./100 gallons
Mean	2.73	0.60	2.38	2.30	1.77	0.66	0.57	390.14	421.61	429.23	31.5	N/A	
Minimum	0.51	0.02	0.02	0.02	0.251	0.166	0.072	114.13	79.61	16.67	4.43	N/A	
Maximum	5.60	2.02	4.38	3.96	5.44	1.52	1.38	739.54	951.66	1150.48	72.3	N/A	

Poultry, wo/litter (layers) - 1998 through 2002 261 Samples

	N (total)	NH ₄ -N	P ₂ O ₅	K ₂ O	Ca	Mg	S	Mn	Zn	Cu	H ₂ O	liquid wt.	
			%		ppm							– % –	lbs./100 gallons
Mean	2.65	0.72	2.81	2.05	5.64	0.74	0.30	304.70	350.24	171.98	40.70	N/A	
Minimum	0.626	0.112	0.624	0.397	0.159	0.003	0.019	24.64	106.56	14.15	10.45	N/A	
Maximum	5.20	1.88	5.45	4.41	18.86	1.61	1.26	652.62	747.23	751.97	76.00	N/A	

Cattle, solid - 1995 through 2002 891 Samples

	N (total)	NH ₄ -N	P ₂ O ₅	K ₂ O	Ca	Mg	S	Mn	Zn	Cu	H ₂ O	liquid wt.	
			%		ppm							– % –	lbs./100 gallons
Mean	0.87	0.08	0.45	0.92	0.57	0.25	0.14	107.69	55.50	18.41	63.54	N/A	
Minimum	0.116	0.001	0.048	0.025	0.031	0.050	0.001	5.60	7.78	1.61	20.88	N/A	
Maximum	2.61	0.47	1.60	3.47	4.84	0.98	0.48	563.90	267.25	167.99	75.00	N/A	

Cattle, semisolid - 1995 through 2002 737 Samples

	N (total)	NH ₄ -N	P ₂ O ₅	K ₂ O	Ca	Mg	S	Mn	Zn	Cu	H ₂ O	liquid wt.	
			%		ppm							– % –	lbs./100 gallons
Mean	0.57	0.10	0.26	0.52	0.31	0.15	0.06	49.81	32.11	9.05	79.79	833.78	
Minimum	0.110	0.001	0.034	0.077	0.011	0.033	0.020	8.98	0.17	1.08	75.01	760.12	
Maximum	1.13	0.39	0.76	1.62	1.77	0.44	0.10	195.27	130.91	88.20	85.00	868.71	

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Cattle, liquid - 1995 through 2002

1000 Samples

	N (total)	NH ₄ -N	P ₂ O ₅	K ₂ O	Ca	Mg	S	Mn	Zn	Cu	H ₂ O	liquid wt.	
	%			ppm									lbs./100 gallons
Mean	0.27	0.11	0.12	0.22	0.13	0.07	0.03	17.29	17.56	7.15	94.02	837.33	
Minimum	0.004	0.001	0.002	0.003	0.001	0.001	0.001	0.014	0.014	0.006	85.06	776.83	
Maximum	0.73	0.35	0.52	0.67	0.69	0.24	0.08	58.47	80.85	72.68	99.92	877.06	

Swine, fresh - 1995 through 2002

53 Samples

	N (total)	NH ₄ -N	P ₂ O ₅	K ₂ O	Ca	Mg	S	Mn	Zn	Cu	H ₂ O	liquid wt.	
	%			ppm									lbs./100 gallons
Mean	1.24	0.25	1.21	0.66	0.70	0.32	0.16	102.38	173.70	43.85	64.65	N/A	
Minimum	0.452	0.001	0.265	0.164	0.055	0.129	0.016	25.90	23.57	6.63	29.18	N/A	
Maximum	3.23	0.90	3.31	2.01	3.64	1.06	0.42	208.87	473.70	188.55	74.89	N/A	

Swine, liquid - 1995 through 2002

122 Samples

	N (total)	NH ₄ -N	P ₂ O ₅	K ₂ O	Ca	Mg	S	Mn	Zn	Cu	H ₂ O	liquid wt.	
	%			ppm									lbs./100 gallons
Mean	0.33	0.20	0.21	0.16	0.08	0.05	0.03	14.53	40.51	14.16	96.55	832.77	
Minimum	0.006	0.002	0.001	0.005	0.004	0.001	0.001	0.179	0.338	0.097	84.43	735.06	
Maximum	1.10	0.58	1.35	0.53	0.60	0.28	0.12	68.98	185.25	112.57	99.82	852.01	

Sheep, solid - 1995 through 2002

79 Samples

	N (total)	NH ₄ -N	P ₂ O ₅	K ₂ O	Ca	Mg	S	Mn	Zn	Cu	H ₂ O	liquid wt.	
	%			ppm									lbs./100 gallons
Mean	1.20	0.17	0.78	1.51	0.91	0.33	0.19	171.29	87.47	13.45	57.31	N/A	
Minimum	0.403	0.002	0.160	0.093	0.219	0.068	0.033	23.07	17.21	2.16	21.32	N/A	
Maximum	2.58	0.49	1.84	3.75	2.79	0.69	0.43	753.98	275.86	56.01	74.45	N/A	

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Horse, solid- 1995 through 2002

583 Samples

	N (total)	NH ₄ -N	P ₂ O ₅	K ₂ O	Ca	Mg	S	Mn	Zn	Cu	H ₂ O	liquid wt.
			%					ppm		%		lbs./100 gallons
Mean	0.67	0.06	0.41	0.63	0.58	0.21	0.13	106.04	52.31	20.35	58.62	N/A
Minimum	0.049	0	0.018	0.044	0.034	0.023	0.007	4.64	2.67	0.21	1.91	N/A
Maximum	2.58	0.88	4.49	3.68	19.49	1.62	0.99	1238.48	315.88	547.97	85.29	N/A

Goat 2001 - 2002

8 Samples (Garrett College data)

	N (total)	NH ₄ -N	P ₂ O ₅	K ₂ O	Ca	Mg	S	Mn	Zn	Cu	H ₂ O	liquid wt.
			%					ppm		%		lbs./100 gallons
Mean	1.16	0.33	0.41	1.33	0.34	0.12	-	-	-	15	65	N/A
Minimum	0.80	0.05	0.31	0.95	0.26	0.08	-	-	-	5	60	N/A
Maximum	1.74	0.49	0.62	1.50	0.45	0.19	-	-	-	27	73	N/A

Rabbit 2001 - 2002

21 Samples (Garrett College data)

	N (total)	NH ₄ -N	P ₂ O ₅	K ₂ O	Ca	Mg	S	Mn	Zn	Cu	H ₂ O	liquid wt.
			%					ppm		%		lbs./100 gallons
Mean	0.69	0.21	0.70	0.44	0.56	0.17	-	-	-	60	75	N/A
Minimum	0.35	0.07	0.45	0.11	0.26	0.09	-	-	-	41	57	N/A
Maximum	1.50	0.35	1.30	0.95	1.12	0.33	-	-	-	141	82	N/A

Compost (2010 and 2015)

16 Samples

	N (total)	NH ₄ -N	P ₂ O ₅	K ₂ O	Ca	Mg	S	Mn	Zn	Cu	H ₂ O	liquid wt.
			%					ppm		%		lbs./100 gallons
Mean	0.84	0.06	0.53	0.73							49	N/A
Minimum	0.24	0.01	0.16	0.06							4	N/A
Maximum	2.19	0.20	1.52	2.24							81	N/A

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