

Swine Manure

	Analysis Dry Basis		Lbs/Ton Dry Basis		Lbs/Ton As Is Basis		Lbs Available/Ton First Year Availability	
	Median	CI 95%	Median	CI 95%	Median	CI 95%	Median	CI 95%
Organic Nitrogen, % N	1.47	0 – 5.64	29.45	0 – 112.90	14.10	0 – 53.68	7.00	0 – 26.84
Ammonium, % N	0.04	0 – 3.45	0.75	0 – 69.24	0.40	0 – 6.16	0.40	0 – 5.85
Nitrate, ppm N	0.00	0 – 0.42	0.02	0 – 8.30	0.02	0 – 7.24	0.02	0 – 7.24
Total N (TKN), % N	1.61	0 – 8.94	32.02	0 – 178.63	15.72	0 – 60.22	8.71	0 – 34.2
Phosphorus, % P₂O₅	2.35	0 – 16.80	46.90	0 – 335.98	33.20	0 – 162.33	23.20	0 – 113.62
Potassium, % K₂O	0.80	0 – 4.21	15.90	0 – 84.24	9.70	0 – 39.74	8.70	0 – 35.77
Sulfur, % S	0.45	0 – 1.21	9.00	0 – 24.17	6.00	0 – 13.66	2.40	0 – 5.46
Calcium, % Ca	3.06	0 – 13.78	61.10	0 – 275.65	35.75	0 – 151.88	25.00	0 – 106.32
Magnesium, % Mg	0.73	0 – 2.05	14.60	0 – 41.01	9.90	0 – 21.13	6.95	0 – 14.79
Sodium, % Na	0.17	0 – 0.83	3.40	0 – 16.50	1.80	0 – 7.74	1.80	0 – 7.74
Zinc, ppm	289.25	0 – 2742.25	0.60	0 – 5.49	0.40	0 – 2.51	0.30	0 – 1.75
Iron, ppm	6684.10	0 – 17673.55	13.40	0 – 35.35	6.30	0 – 21.67	4.40	0 – 15.17
Manganese, ppm	367.55	0 – 2.05	0.70	0 – 2.59	0.40	0 – 1.39	0.30	0 – 0.98
Copper, ppm	58.45	0 – 1290.50	0.12	0 – 1.68	0.10	0 – 0.60	0.10	0 – 0.44
Boron, ppm	13.95	0 – 47.83	0.03	0.05 – 0.10	0.02	0 – 0.06	0.02	0 – 0.06
Soluble Salts, mmho/cm	16.99	0 – 301.94						
pH	7.40	5.56 – 9.39						
Dry Matter %	61.83	12.12 – 100						
Moisture, %	38.18	0 – 87.88						

Medians based on over 342 samples.

Data analyzed by E. Shafto, 2018

Beef Manure

	Analysis Dry Basis		Lbs/Ton Dry Basis		Lbs/Ton As Is Basis		Lbs Available/Ton First Year Availability	
	Median	CI 95%	Median	CI 95%	Median	CI 95%	Median	CI 95%
Organic Nitrogen, % N	1.15	0 – 2.77	23.00	0 – 55.40	13.20	0 – 33.55	3.30	0 – 8.39
Ammonium, % N	0.05	0 – 0.66	1.00	0 – 13.10	0.60	0 – 5.82	0.60	0 – 5.53
Nitrate, ppm N	0.00	0 – 0.14	0.00	0 – 2.84	0.00	0 – 1.70	0.00	0 – 1.70
Total N (TKN), % N	1.24	0 – 3.16	24.90	0 – 63.13	14.30	0 – 37.23	4.20	0 – 12.73
Phosphorus, % P₂O₅	1.73	0 – 6.09	34.70	0 – 121.80	20.90	0 – 71.27	14.60	0 – 49.89
Potassium, % K₂O	1.60	0 – 3.50	31.90	0 – 69.92	19.30	0 – 46.00	17.30	0 – 41.40
Sulfur, % S	0.44	0 – 1.07	8.80	0 – 21.40	5.30	0 – 15.16	2.10	0 – 6.06
Calcium, % Ca	2.02	0 – 6.85	40.40	0 – 137.00	24.00	0 – 86.74	16.80	0 – 60.72
Magnesium, % Mg	0.67	0.08 – 1.29	13.40	1.62 – 25.71	8.00	0.98 – 15.63	5.60	0 – 10.94
Sodium, % Na	0.24	0 – 0.64	4.80	0 – 12.82	2.90	0 – 7.75	2.90	0 – 7.75
Zinc, ppm	215.40	0 – 1057.62	0.43	0 – 2.11	0.26	0 – 1.17	0.18	0 – 0.82
Iron, ppm	7746.55	0 – 17650.87	15.48	0 – 35.30	9.55	0 – 23.16	6.69	0 – 16.21
Manganese, ppm	350.7	0 – 969.20	0.70	0 – 1.94	0.43	0 – 1.22	0.30	0 – 0.85
Copper, ppm	42.10	0 – 298.99	0.09	0 – 0.60	0.05	0 – 0.27	0.03	0 – 0.19
Boron, ppm	13.60	0 – 53.35	0.03	0 – 0.11	0.02	0 – 0.09	0.09	0 – 0.09
Soluble Salts, mmho/cm	24.85	0 – 78.56						
pH	7.50	5.84 – 9.17						
Dry Matter %	64.47	27.64 – 96.30						
Moisture, %	35.52	3.74 – 72.28						

Medians based on over 10,516 samples.

Data analyzed by E. Shafto, 2018

Poultry Manure

	Analysis Dry Basis		Lbs/Ton Dry Basis		Lbs/Ton As Is Basis		Lbs Available/Ton First Year Availability	
	Median	CI 95%	Median	CI 95%	Median	CI 95%	Median	CI 95%
Organic Nitrogen, % N	3.50	1.03 – 6.18	70.00	20.60 – 123.63	43.70	0.72 – 88.80	15.30	0.25 – 31.08
Ammonium, % N	0.37	0 – 0.97	7.40	0 – 19.45	4.20	0 – 13.02	4.00	0 – 12.37
Nitrate, ppm N	0.00	0 – 0.23	0.02	0 – 4.64	0.01	0 – 3.96	0.01	0 – 3.96
Total N (TKN), % N	3.96	1.12 – 6.95	79.20	22.31 – 139.52	48.1	0 – 100.12	19.51	0 – 43.08
Phosphorus, % P₂O₅	4.16	1.30 – 7.47	83.15	26.05 – 149.45	54.60	6.48 – 102.18	38.20	4.54 – 71.53
Potassium, % K₂O	3.47	1.21 – 5.89	69.40	24.15 – 117.89	44.75	4.36 – 84.88	40.30	3.92 – 76.39
Sulfur, % S	0.89	0.18 – 1.79	17.7	3.54 – 35.79	11.20	0 – 26.77	4.50	0 – 10.71
Calcium, % Ca	7.31	0 – 19.18	146.15	0 – 383.51	64.45	0 – 248.08	45.10	0 – 173.65
Magnesium, % Mg	0.71	0.19 – 1.32	14.20	3.71 – 26.42	9.40	1.39 – 17.22	6.60	0.97 – 12.06
Sodium, % Na	0.55	0 – 1.31	11.00	0 – 26.29	6.80	0 – 19.43	6.80	0 – 19.43
Zinc, ppm	500.65	0 – 1186.70	1.00	0 – 2.37	0.70	0 – 1.50	0.50	0 – 1.05
Iron, ppm	1114.85	0 – 5247.96	2.20	0 – 10.49	1.40	0 – 6.75	1.00	0 – 4.72
Manganese, ppm	509.45	52.23 – 1069.78	1.00	0.11 – 2.14	0.70	0 – 1.51	0.50	0 – 1.06
Copper, ppm	78.10	0 – 635.22	0.16	0 – 1.28	0.10	0 – 0.83	0.09	0 – 0.58
Boron, ppm	43.55	0 – 132.92	0.09	0 – 0.27	0.06	0 – 0.19	0.06	0 – 0.19
Soluble Salts, mmho/cm	65.32	20.78 – 108.99						
pH	6.60	5.46 – 7.98						
Dry Matter %	66.10	25.72 – 98.83						
Moisture, %	33.90	1.17 – 74.28						

Medians based on over 858 samples.

Data analyzed by E. Shafto, 2018

Compost Manure

	Analysis Dry Basis		Lbs/Ton Dry Basis		Lbs/Ton As Is Basis		Lbs Available/Ton First Year Availability	
	Median	CI 95%	Median	CI 95%	Median	CI 95%	Median	CI 95%
Organic Nitrogen, % N	1.14	0 – 3.90	22.90	0 – 78.07	16.40	0 – 61.61	3.30	0 – 12.33
Ammonium, % N	0.04	0 – 1.38	0.70	0 – 27.67	0.50	0 – 26.56	0.50	0 – 25.24
Nitrate, ppm N	0.00	0 – 1.24	0.04	0 – 24.85	0.03	0 – 21.59	0.03	0 – 21.59
Total N (TKN), % N	1.22	0 – 4.85	24.32	0 – 96.98	17.52	0 – 79.49	4.28	0 – 42.58
Phosphorus, % P₂O₅	1.67	0 – 8.60	33.40	0 – 171.98	25.90	0 – 156.42	18.10	0 – 109.52
Potassium, % K₂O	1.75	0 – 6.56	35.10	0 – 131.13	26.30	0 – 115.40	23.65	0 – 103.86
Sulfur, % S	0.47	0 – 2.70	9.50	0 – 53.93	7.20	0 – 45.15	2.90	0 – 18.06
Calcium, % Ca	2.07	0 – 9.21	41.45	0 – 184.11	28.50	0 – 153.80	20.00	0 – 107.66
Magnesium, % Mg	0.55	0 – 2.00	10.90	0 – 40.08	8.30	0 – 31.34	5.80	0 – 21.94
Sodium, % Na	0.24	0 – 1.06	4.90	0 – 21.21	3.70	0 – 17.00	3.70	0 – 17.00
Zinc, ppm	168.30	0 – 705.53	0.30	0 – 1.42	0.30	0 – 1.12	0.20	0 – 0.79
Iron, ppm	5404.90	0 – 13435.05	10.80	0 – 26.87	8.10	0 – 18.78	5.70	0 – 13.15
Manganese, ppm	195.90	0 – 974.98	0.40	0 – 1.97	0.30	0 – 1.49	0.20	0 – 1.05
Copper, ppm	32.50	0 – 260.38	0.07	0 – 0.52	0.05	0 – 0.30	0.10	0 – 0.21
Boron, ppm	15.10	0 – 53.43	0.03	0 – 0.11	0.02	0 – 0.08	0.10	0 – 0.08
Soluble Salts, mmho/cm	28.89	0 – 133.79						
pH	7.40	5.41 – 9.42						
Dry Matter %	75.23	42.57 – 100.00						
Moisture, %	24.77	0 – 57.41						

Medians based on over 2,327 samples.

Data analyzed by E. Shafto, 2018

Dairy Manure

	Analysis Dry Basis		Lbs/Ton Dry Basis		Lbs/Ton As Is Basis		Lbs Available/Ton First Year As Is Basis	
	Median	CI 95%	Median	CI 95%	Median	CI 95%	Median	CI 95%
Organic Nitrogen, % N	1.38	0 – 2.89	27.60	0 – 57.81	8.80	0 – 27.04	3.10	0 – 9.47
Ammonium, % N	0.02	0 – 0.25	0.40	0 – 5.02	0.10	0 – 1.26	0.10	0 – 1.19
Nitrate, ppm N	0.00	0 – 0.05	0.02	0 – 1.00	0.01	0 – 0.60	0.01	0 – 0.60
Total N (TKN), % N	1.44	0 – 3.00	28.70	0 – 59.90	9.00	0 – 27.69	3.30	0 – 10.15
Phosphorus, % P₂O₅	0.90	0 – 2.86	17.95	0 – 57.14	6.30	0 – 25.41	4.40	0 – 17.79
Potassium, % K₂O	1.58	0 – 4.28	31.45	0 – 85.49	10.35	0 – 43.56	9.35	0 – 39.21
Sulfur, % S	0.34	0 – 0.81	6.80	0 – 16.22	2.10	0 – 8.40	0.80	0 – 3.36
Calcium, % Ca	1.72	0 – 5.18	34.30	0 – 103.50	11.60	0 – 55.44	8.10	0 – 38.81
Magnesium, % Mg	0.56	0 – 1.46	11.05	0 – 29.10	3.70	0 – 15.59	2.60	0 – 10.91
Sodium, % Na	0.30	0 – 0.97	6.00	0 – 19.31	1.85	0 – 11.21	1.85	0 – 11.21
Zinc, ppm	122.75	0 – 530.97	0.24	0 – 1.06	0.10	0 – 0.43	0.10	0 – 0.31
Iron, ppm	3448.10	0 – 12216.37	6.90	0 – 24.43	3.15	0 – 13.11	2.20	0 – 9.17
Manganese, ppm	195.05	0 – 766.28	0.40	0 – 1.53	0.20	0 – 0.80	0.10	0 – 0.56
Copper, ppm	35.75	0 – 401.34	0.07	0 – 0.80	0.03	0 – 0.22	0.02	0 – 0.15
Boron, ppm	18.20	0 – 43.56	0.04	0 – 0.09	0.01	0 – 0.05	0.01	0 – 0.05
Soluble Salts, mmho/cm	27.59	0 – 78.72						
pH	8.40	6.33 – 10.14						
Dry Matter %	39.08	1.10 – 86.68						
Moisture %	60.46	13.16 – 98.91						

Medians based on over 344 samples.

Data analyzed by E. Shafto, 2018