

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, ppm | 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, % Zn | 289.25 | 0 – 2742.25 | 0.60 | 0 – 5.49 | 0.40 | 0 – 2.51 | 0.30 | 0 – 1.75 |
| Fe, % Fe | 6684.10 | 0 – 17673.55 | 13.40 | 0 – 35.35 | 6.30 | 0 – 21.67 | 4.40 | 0 – 15.17 |
| Manganese, % Mn | 367.55 | 0 – 2.05 | 0.70 | 0 – 2.59 | 0.40 | 0 – 1.39 | 0.30 | 0 – 0.98 |
| Copper, % Cu | 58.45 | 0 – 1290.50 | 0.12 | 0 – 1.68 | 0.10 | 0 – 0.60 | 0.10 | 0 – 0.44 |
| Boron, % B | 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, ppm | 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, % Zn | 215.40 | 0 – 1057.62 | 0.43 | 0 – 2.11 | 0.26 | 0 – 1.17 | 0.18 | 0 – 0.82 |
| Fe, % Fe | 7746.55 | 0 – 17650.87 | 15.48 | 0 – 35.30 | 9.55 | 0 – 23.16 | 6.69 | 0 – 16.21 |
| Manganese, % Mn | 350.7 | 0 – 969.20 | 0.70 | 0 – 1.94 | 0.43 | 0 – 1.22 | 0.30 | 0 – 0.85 |
| Copper, % Cu | 42.10 | 0 – 298.99 | 0.09 | 0 – 0.60 | 0.05 | 0 – 0.27 | 0.03 | 0 – 0.19 |
| Boron, % B | 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, ppm | 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, % Zn | 500.65 | 0 – 1186.70 | 1.00 | 0 – 2.37 | 0.70 | 0 – 1.50 | 0.50 | 0 – 1.05 |
| Fe, % Fe | 1114.85 | 0 – 5247.96 | 2.20 | 0 – 10.49 | 1.40 | 0 – 6.75 | 1.00 | 0 – 4.72 |
| Manganese, % Mn | 509.45 | 52.23 – 1069.78 | 1.00 | 0.11 – 2.14 | 0.70 | 0 – 1.51 | 0.50 | 0 – 1.06 |
| Copper, % Cu | 78.10 | 0 – 635.22 | 0.16 | 0 – 1.28 | 0.10 | 0 – 0.83 | 0.09 | 0 – 0.58 |
| Boron, % B | 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, ppm | 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, % Zn | 168.30 | 0 – 705.53 | 0.30 | 0 – 1.42 | 0.30 | 0 – 1.12 | 0.20 | 0 – 0.79 |
| Fe, % Fe | 5404.90 | 0 – 13435.05 | 10.80 | 0 – 26.87 | 8.10 | 0 – 18.78 | 5.70 | 0 – 13.15 |
| Manganese, % Mn | 195.90 | 0 – 974.98 | 0.40 | 0 – 1.97 | 0.30 | 0 – 1.49 | 0.20 | 0 – 1.05 |
| Copper, % Cu | 32.50 | 0 – 260.38 | 0.07 | 0 – 0.52 | 0.05 | 0 – 0.30 | 0.10 | 0 – 0.21 |
| Boron, % B | 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, ppm | 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, % Zn | 122.75 | 0 – 530.97 | 0.24 | 0 – 1.06 | 0.10 | 0 – 0.43 | 0.10 | 0 – 0.31 |
| Fe, % Fe | 3448.10 | 0 – 12216.37 | 6.90 | 0 – 24.43 | 3.15 | 0 – 13.11 | 2.20 | 0 – 9.17 |
| Manganese, % Mn | 195.05 | 0 – 766.28 | 0.40 | 0 – 1.53 | 0.20 | 0 – 0.80 | 0.10 | 0 – 0.56 |
| Copper, % Cu | 35.75 | 0 – 401.34 | 0.07 | 0 – 0.80 | 0.03 | 0 – 0.22 | 0.02 | 0 – 0.15 |
| Boron, % B | 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