



Typical Beef Waste Analysis: Effluent (1% solids or less)

NUTRIENTS	Analysis values, wet basis		Pounds per 1000 gallons, lb/1000 gal		Pounds per acre-inch, lb/ac-in	
	Median	Typical range	Median	Typical range	Median	Typical range
Total nitrogen, mg/L N	142	80 - 250	1.2	0.7 - 2.1	32	18 - 57
Organic nitrogen, mg/L N	86	40 - 130	0.7	0.3 - 1.1	19	9 - 29
Ammoniacal-nitrogen, mg/L NH ₄ -N	70	23 - 120	0.6	0.2 - 1.0	16	5 - 27
Nitrate-nitrogen, mg/L NO ₃ -N	1	< 1 - 10	< 0.01	< 0.01 - 0.01	< 0.5	< 0.5 - 0.5
Phosphorus, mg/L P	48	31 - 70	0.4	0.3 - 0.6	11	7 - 16
Phosphate, mg/L P ₂ O ₅	110	70 - 160	0.9	0.6 - 1.3	25	16 - 36
Potassium, mg/L K	672	371 - 1017	5.6	3.1 - 8.5	152	84 - 231
Potash, mg/L K ₂ O	780	430 - 1180	6.5	3.6 - 9.8	177	97 - 267
METAL						
Calcium, mg/L Ca	136	100 - 190	1.1	0.8 - 1.6	30.8	23 - 43
Magnesium, mg/L Mg	80	51 - 120	0.7	0.4 - 1.0	18.1	11 - 27
Sulfur, mg/L S	50	33 - 84	0.4	0.3 - 0.7	11.3	7 - 19
Sodium, mg/L Na	210	137 - 310	1.8	1.1 - 2.6	47.6	31 - 70
Zinc, mg/L Zn	1.0	< 1 - 1.0	0.01	< 0.01 - 0.01	< 0.30	< 0.30 - 0.30
Iron, mg/L Fe	6.0	3.0 - 10.0	0.05	0.03 - 0.08	1.36	0.68 - 2.27
Manganese, mg/L Mn	1.0	< 1 - 1.0	0.01	< 0.01 - 0.01	< 0.30	< 0.3 - 0.30
Copper, mg/L Cu	1.0	< 1 - 1.0	0.01	< 0.01 - 0.01	< 0.20	0.02 - 0.23
Boron, mg/L B	1.0	0.5 - 1.0	0.01	< 0.01 - 0.01	< 0.23	0.11 - 0.23
PROPERTIES						
Moisture, %	99.6	99.4 - 99.8	8312	8295 - 8328	225,830	225,376 - 226,283
Solids, %	0.4	0.2 - 0.6	33	17 - 50	906	453 - 1,360
Organic matter, % OM	0.10	0.09 - 0.18	8	8 - 17	227	204 - 408
Ash (non-volatile solids), %	0.22	0.11 - 0.30	17	8 - 25	499	249 - 680
Carbon to nitrogen ratio, C:N	5	4 - 7				
Electrical conductivity, mmho/cm	4.6	3.0 - 6.1				
Sodium adsorption ratio, SAR	3.5	2.6 - 4.8				
Chloride, mg/L Cl	570	330 - 830				

Data from survey of 3289 samples submitted to Servi-Tech Labs from 12/2006-09/08 & 01/14-12/17, inclusive. "Median" value is 50th percentile; half (50%) of results less than median value; half above median value. "Typical range" represents 25th and 75th percentiles. Typical range includes middle 50% of samples; 25% of above range; 25% below.

Servi-Tech Laboratories: Dodge City, Kansas; Hastings, Nebraska; Amarillo, Texas