



2018 North American Proficiency Testing Program
Quarter 3 Plant Report - Oct 9, 2018

Laboratory ID

General

| Plant | Plant 2018-207 | | | | | Plant 2018-208 | | | Plant 2018-209 | | |
|-------------------------------------|----------------|----|--------|-------|--------------------|----------------|-------|--------------------|----------------|-------|--------------------|
| Analysis | Units | n | Median | MAD | Lab ^{1,2} | Median | MAD | Lab ^{1,2} | Median | MAD | Lab ^{1,2} |
| Dry Matter (%) | % | 24 | 94.8 | 0.688 | | 91.8 | 0.770 | | 94.0 | 0.550 | |
| NO3 - N Cd Rd. | mg/kg | 22 | 90.7 | 10.6 | | 173 | 15.0 | | 20.0 | 3.04 | |
| NO3 - N ISE | mg/kg | 6 | 191 | 60.5 | | 290 | 28.5 | | 125 | 24.0 | |
| NO3 - N Other | mg/kg | 4 | 97.5 | 11.5 | | 200 | 19.8 | | 2140 | 2100 | |
| NH4-N | mg/kg | 3 | 58.0 | 28.1 | | 430 | 170 | | 50.0 | 11.0 | |
| PO4 - P | mg/kg | 11 | 305 | 15.0 | | 3030 | 196 | | 700 | 70.0 | |
| SO4 - S | mg/kg | 6 | 243 | 82.4 | | 1100 | 56.0 | | 143 | 46.3 | |
| Cl | % | 22 | 0.980 | 0.032 | | 0.173 | 0.028 | | 0.058 | 0.010 | |
| TKN | % | 12 | 0.829 | 0.055 | | 0.760 | 0.029 | | 2.82 | 0.100 | |
| N- Dry Comb. | % | 61 | 0.916 | 0.036 | | 0.802 | 0.032 | | 2.83 | 0.059 | |
| S- Dry Comb. | % | 9 | 0.080 | 0.011 | | 0.159 | 0.019 | | 0.152 | 0.024 | |
| Nitric / Perchloric | | | | | | | | | | | |
| P | % | 29 | 0.076 | 0.004 | | 0.371 | 0.013 | | 0.217 | 0.008 | |
| K | % | 31 | 1.27 | 0.060 | | 2.66 | 0.087 | | 1.23 | 0.040 | |
| Ca | % | 30 | 0.296 | 0.016 | | 1.93 | 0.084 | | 2.24 | 0.096 | |
| Mg | % | 30 | 0.200 | 0.010 | | 0.699 | 0.033 | | 0.659 | 0.030 | |
| S | % | 28 | 0.070 | 0.008 | | 0.156 | 0.008 | | 0.152 | 0.011 | |
| Na | % | 24 | 0.006 | 0.001 | | 0.036 | 0.002 | | 0.006 | 0.001 | |
| Al | mg/kg | 19 | 36.6 | 1.68 | | 36.6 | 4.69 | | 43.9 | 6.04 | |
| B | mg/kg | 27 | 18.0 | 1.26 | | 44.0 | 3.04 | | 29.4 | 1.57 | |
| Zn | mg/kg | 30 | 11.0 | 1.23 | | 58.0 | 2.46 | | 60.2 | 2.49 | |
| Mn | mg/kg | 30 | 50.9 | 3.13 | | 166 | 6.58 | | 37.8 | 2.40 | |
| Fe | mg/kg | 30 | 62.5 | 6.22 | | 45.7 | 4.60 | | 76.9 | 5.43 | |
| Cu | mg/kg | 31 | 4.06 | 0.240 | | 17.6 | 1.07 | | 8.29 | 0.700 | |
| Mo | mg/kg | 9 | 0.390 | 0.041 | | 0.380 | 0.032 | | 0.180 | 0.019 | |
| Nitric / Peroxide- MICROWAVE | | | | | | | | | | | |
| P | % | 33 | 0.077 | 0.003 | | 0.380 | 0.011 | | 0.215 | 0.005 | |
| K | % | 34 | 1.25 | 0.030 | | 2.62 | 0.074 | | 1.23 | 0.050 | |
| Ca | % | 34 | 0.287 | 0.013 | | 1.90 | 0.055 | | 2.23 | 0.080 | |
| Mg | % | 34 | 0.190 | 0.010 | | 0.662 | 0.026 | | 0.640 | 0.030 | |
| S | % | 30 | 0.070 | 0.007 | | 0.150 | 0.005 | | 0.150 | 0.006 | |
| Na | % | 25 | 0.006 | 0.001 | | 0.033 | 0.003 | | 0.008 | 0.001 | |
| Al | mg/kg | 23 | 45.0 | 6.70 | | 43.2 | 8.33 | | 51.5 | 11.4 | |
| B | mg/kg | 33 | 18.0 | 1.35 | | 44.9 | 1.96 | | 29.7 | 1.28 | |
| Zn | mg/kg | 34 | 10.9 | 0.925 | | 58.2 | 2.52 | | 59.7 | 3.44 | |
| Mn | mg/kg | 34 | 51.4 | 1.90 | | 164 | 7.70 | | 37.0 | 1.16 | |
| Fe | mg/kg | 34 | 62.8 | 3.89 | | 49.8 | 5.06 | | 77.9 | 6.78 | |
| Cu | mg/kg | 34 | 4.38 | 0.375 | | 17.8 | 0.665 | | 8.93 | 0.535 | |
| Mo | mg/kg | 15 | 0.380 | 0.040 | | 0.340 | 0.060 | | 0.140 | 0.024 | |
| Dry Ash | | | | | | | | | | | |
| P | % | 14 | 0.074 | 0.006 | | 0.370 | 0.035 | | 0.213 | 0.017 | |
| K | % | 14 | 1.22 | 0.136 | | 2.64 | 0.130 | | 1.20 | 0.081 | |
| Ca | % | 14 | 0.26 | 0.021 | | 1.88 | 0.135 | | 2.17 | 0.125 | |

1 - Values flagged exceed Warning Limits *** 2.5 x MAD (Median Absolute Deviation) and Control Limits **** 4 x MAD.
2 - Limits not compared to lab data for methods with less than 7 labs reporting.

| | | | | | | | | |
|-----------|-------|----|--------------|--------------|--------------|--------------|--------------|--------------|
| Mg | % | 14 | 0.190 | <i>0.010</i> | 0.709 | <i>0.045</i> | 0.679 | <i>0.039</i> |
| Na | % | 11 | 0.010 | <i>0.001</i> | 0.050 | <i>0.004</i> | 0.015 | <i>0.002</i> |
| Al | mg/kg | 5 | 27.7 | <i>4.45</i> | 53.8 | <i>8.16</i> | 53.4 | <i>2.27</i> |
| B | mg/kg | 15 | 16.0 | <i>1.00</i> | 44.0 | <i>1.99</i> | 28.5 | <i>2.00</i> |
| Zn | mg/kg | 14 | 9.35 | <i>2.15</i> | 56.6 | <i>2.81</i> | 61.0 | <i>3.51</i> |
| Mn | mg/kg | 14 | 45.2 | <i>3.47</i> | 162 | <i>9.10</i> | 37.9 | <i>3.05</i> |
| Fe | mg/kg | 14 | 41.3 | <i>3.73</i> | 50.9 | <i>5.85</i> | 78.4 | <i>10.3</i> |
| Cu | mg/kg | 14 | 1.75 | <i>0.284</i> | 18.0 | <i>1.18</i> | 8.71 | <i>1.32</i> |
| Mo | mg/kg | 3 | 0.530 | <i>0.080</i> | 0.490 | <i>0.432</i> | 1.48 | <i>1.14</i> |