



2012 North American Proficiency Testing Program
2nd Quarter Report - July31, 2012

Laboratory ID
general

| Plant Analysis | Units | n | Plant 2012-204 | | | Plant 2012-205 | | | Plant 2012-206 | | |
|----------------------------|-------|----|----------------|-------|--------------------|----------------|-------|--------------------|----------------|-------|--------------------|
| | | | Median | MAD | Lab ^{1,2} | Median | MAD | Lab ^{1,2} | Median | MAD | Lab ^{1,2} |
| Dry Matter (%) | % | 26 | 94.8 | 0.480 | | 95.1 | 0.360 | | 94.8 | 0.370 | |
| NO3 - N Cd Rd. | mg/kg | 24 | 472 | 51.7 | | 25.0 | 5.13 | | 4860 | 475 | |
| NO3 - N ISE | mg/kg | 3 | 780 | 110 | | 78.0 | 14.0 | | 6080 | 682 | |
| NO3 - N Other | mg/kg | 4 | 1140 | 156 | | 979 | 242 | | 5940 | 820 | |
| NH4-N | mg/kg | 1 | 503 | 0.000 | | 13.5 | 0.000 | | 5710 | 0.000 | |
| PO4 - P | mg/kg | 9 | 2450 | 150 | | 918 | 43.8 | | 3320 | 113 | |
| SO4 - S | mg/kg | 4 | 502 | 18.5 | | 378 | 36.6 | | 6340 | 490 | |
| Cl | % | 22 | 0.350 | 0.023 | | 0.115 | 0.013 | | 0.675 | 0.060 | |
| TKN | % | 15 | 1.63 | 0.030 | | 1.03 | 0.010 | | 2.79 | 0.200 | |
| N- Dry Comb. | % | 49 | 1.75 | 0.050 | | 1.11 | 0.025 | | 3.25 | 0.050 | |
| S- Dry Comb. | % | 10 | 0.125 | 0.025 | | 0.104 | 0.025 | | 0.870 | 0.030 | |
| Nitric / Perchloric | | | | | | | | | | | |
| P | % | 28 | 0.342 | 0.011 | | 0.170 | 0.009 | | 0.460 | 0.020 | |
| K | % | 28 | 1.58 | 0.055 | | 0.662 | 0.039 | | 3.22 | 0.130 | |
| Ca | % | 29 | 1.97 | 0.110 | | 1.06 | 0.050 | | 2.74 | 0.135 | |
| Mg | % | 29 | 0.522 | 0.023 | | 0.233 | 0.015 | | 0.494 | 0.020 | |
| S | % | 27 | 0.130 | 0.010 | | 0.110 | 0.007 | | 0.869 | 0.037 | |
| Na | % | 22 | 0.005 | 0.001 | | 0.009 | 0.002 | | 0.389 | 0.018 | |
| Al | mg/kg | 15 | 220 | 47.0 | | 88.4 | 12.2 | | 3050 | 462 | |
| B | mg/kg | 24 | 61.5 | 4.40 | | 44.8 | 2.80 | | 37.0 | 3.92 | |
| Zn | mg/kg | 29 | 15.1 | 1.11 | | 32.9 | 2.09 | | 60.4 | 2.79 | |
| Mn | mg/kg | 29 | 225 | 7.10 | | 232 | 12.0 | | 141 | 7.33 | |
| Fe | mg/kg | 29 | 314 | 26.0 | | 298 | 15.9 | | 6290 | 532 | |
| Cu | mg/kg | 29 | 7.00 | 0.50 | | 4.40 | 0.520 | | 21.9 | 1.10 | |
| Mo | mg/kg | 10 | 2.42 | 0.135 | | 0.113 | 0.026 | | 2.04 | 0.370 | |

1 - Values flagged exceed Warning Limits " * " 2.5 x MAD (Median Absolute Deviation) and Control Limits " ** " 4 x MAD. "<" and "ND" values not recorded.

2 - Limits not compared to lab data for methods with < 7 labs reporting.



2012 North American Proficiency Testing Program
2nd Quarter Report - July31, 2012

Laboratory ID
general

| Plant Analysis | Units | n | Plant 2012-204 | | | Plant 2012-205 | | | Plant 2012-206 | | |
|---------------------------------------|-------|----|----------------|-------|--------------------|----------------|-------|--------------------|----------------|-------|--------------------|
| | | | Median | MAD | Lab ^{1,2} | Median | MAD | Lab ^{1,2} | Median | MAD | Lab ^{1,2} |
| Nitric / Perchloric- MICROWAVE | | | | | | | | | | | |
| P | % | 21 | 0.349 | 0.021 | | 0.170 | 0.010 | | 0.458 | 0.020 | |
| K | % | 21 | 1.60 | 0.079 | | 0.662 | 0.038 | | 3.20 | 0.187 | |
| Ca | % | 21 | 1.97 | 0.118 | | 1.07 | 0.051 | | 2.73 | 0.205 | |
| Mg | % | 21 | 0.520 | 0.020 | | 0.220 | 0.010 | | 0.470 | 0.028 | |
| S | % | 21 | 0.130 | 0.010 | | 0.103 | 0.007 | | 0.860 | 0.057 | |
| Na | % | 14 | 0.010 | 0.003 | | 0.010 | 0.002 | | 0.390 | 0.031 | |
| Al | mg/kg | 9 | 321 | 21.1 | | 96.6 | 15.0 | | 3430 | 462 | |
| B | mg/kg | 19 | 64.5 | 5.22 | | 44.8 | 3.39 | | 38.6 | 4.81 | |
| Zn | mg/kg | 21 | 16.5 | 2.13 | | 34.0 | 1.92 | | 58.5 | 3.67 | |
| Mn | mg/kg | 21 | 227 | 15.7 | | 228 | 10.4 | | 139 | 12.0 | |
| Fe | mg/kg | 21 | 319 | 35.6 | | 289 | 14.7 | | 5770 | 1110 | |
| Cu | mg/kg | 21 | 7.00 | 1.00 | | 4.41 | 0.590 | | 21.6 | 1.68 | |
| Mo | mg/kg | 6 | 2.52 | 0.445 | | 0.190 | 0.042 | | 2.05 | 0.345 | |
| Dry Ash | | | | | | | | | | | |
| P | % | 16 | 0.345 | 0.015 | | 0.170 | 0.009 | | 0.470 | 0.027 | |
| K | % | 17 | 1.55 | 0.050 | | 0.647 | 0.023 | | 2.92 | 0.170 | |
| Ca | % | 17 | 1.94 | 0.090 | | 1.03 | 0.030 | | 2.75 | 0.120 | |
| Mg | % | 17 | 0.510 | 0.010 | | 0.220 | 0.014 | | 0.450 | 0.026 | |
| Na | % | 11 | 0.019 | 0.004 | | 0.015 | 0.003 | | 0.443 | 0.035 | |
| Al | mg/kg | 5 | 332 | 68.0 | | 92.2 | 5.34 | | 3750 | 554 | |
| B | mg/kg | 19 | 62.0 | 4.34 | | 43.5 | 2.36 | | 42.0 | 3.31 | |
| Zn | mg/kg | 16 | 15.8 | 1.26 | | 33.3 | 1.22 | | 55.7 | 3.28 | |
| Mn | mg/kg | 16 | 211 | 10.0 | | 220 | 10.0 | | 126 | 9.50 | |
| Fe | mg/kg | 16 | 282 | 37.3 | | 276 | 23.0 | | 4690 | 607 | |
| Cu | mg/kg | 17 | 7.25 | 1.05 | | 5.00 | 0.990 | | 19.6 | 2.45 | |
| Mo | mg/kg | 4 | 1.84 | 0.254 | | 1.58 | 0.331 | | 1.82 | 0.425 | |

1 - Values flagged exceed Warning Limits " * " 2.5 x MAD (Median Absolute Deviation) and Control Limits " * * " 4 x MAD. "<" and "ND" values not recorded.

2 - Limits not compared to lab data for methods with < 7 labs reporting.