



2010 North American Proficiency Testing Program  
3rd Quarter Report - October 15, 2010

Laboratory ID  
General

| Plant Analysis             | Units | n  | Plant 2010-207 |       |                    | Plant 2010-208 |       |                    | Plant 2010-209 |         |                    |
|----------------------------|-------|----|----------------|-------|--------------------|----------------|-------|--------------------|----------------|---------|--------------------|
|                            |       |    | Median         | MAD   | Lab <sup>1,2</sup> | Median         | MAD   | Lab <sup>1,2</sup> | Median         | MAD     | Lab <sup>1,2</sup> |
| Dry Matter (%)             | %     | 24 | 94.2           | 0.53  |                    | 93.2           | 3.73  |                    | 92.2           | 3.78    |                    |
| NO3 - N Cd Rd.             | mg/kg | 21 | 8299.0         | 868.5 |                    | 633            | 105.0 |                    | 130.0          | 22.0    |                    |
| NO3 - N ISE                | mg/kg | 4  | 8814.2         | 674.2 |                    | 746            | 108.0 |                    | 208.3          | 46.3    |                    |
| NO3 - N Other              | mg/kg | 1  | 5655           | 2827  |                    | 1315           | 725   |                    | 1840           | 919.500 |                    |
| NH4-N                      | mg/kg | 2  | 875.5          | 285.5 |                    | 104            | 24    |                    | 368.0          | 183.500 |                    |
| PO4 - P                    | mg/kg | 11 | 2201           | 208   |                    | 2770           | 240   |                    | 1741           | 89      |                    |
| SO4 - S                    | mg/kg | 4  | 1360           | 380   |                    | 456            | 197   |                    | 3930           | 670     |                    |
| Cl                         | %     | 18 | 1.770          | 0.183 |                    | 0.334          | 0.116 |                    | 0.840          | 0.080   |                    |
| TKN                        | %     | 15 | 4.20           | 0.070 |                    | 1.67           | 0.082 |                    | 1.82           | 0.136   |                    |
| N- Dry Comb.               | %     | 46 | 4.64           | 0.074 |                    | 1.68           | 0.042 |                    | 1.85           | 0.142   |                    |
| S- Dry Comb.               | %     | 13 | 0.313          | 0.056 |                    | 0.136          | 0.016 |                    | 0.521          | 0.048   |                    |
| <b>Nitric / Perchloric</b> |       |    |                |       |                    |                |       |                    |                |         |                    |
| P                          | %     | 32 | 0.367          | 0.017 |                    | 0.388          | 0.022 |                    | 0.330          | 0.016   |                    |
| K                          | %     | 32 | 6.32           | 0.290 |                    | 1.80           | 0.090 |                    | 2.360          | 0.140   |                    |
| Ca                         | %     | 34 | 1.96           | 0.103 |                    | 1.48           | 0.050 |                    | 1.435          | 0.065   |                    |
| Mg                         | %     | 34 | 0.610          | 0.020 |                    | 0.460          | 0.020 |                    | 0.350          | 0.011   |                    |
| S                          | %     | 29 | 0.294          | 0.016 |                    | 0.122          | 0.008 |                    | 0.530          | 0.021   |                    |
| Na                         | %     | 24 | 0.028          | 0.006 |                    | 0.010          | 0.004 |                    | 0.185          | 0.011   |                    |
| Al                         | mg/kg | 15 | 220.0          | 66.5  |                    | 189            | 58    |                    | 346            | 103.5   |                    |
| B                          | mg/kg | 27 | 45.6           | 3.23  |                    | 36.5           | 2.04  |                    | 31.4           | 1.75    |                    |
| Zn                         | mg/kg | 34 | 15.3           | 0.80  |                    | 22.9           | 1.07  |                    | 19.8           | 0.98    |                    |
| Mn                         | mg/kg | 34 | 153.0          | 1.88  |                    | 112.2          | 4.22  |                    | 47             | 2.4     |                    |
| Fe                         | mg/kg | 33 | 283.0          | 38.4  |                    | 258            | 26.5  |                    | 433.1          | 48.9    |                    |
| Cu                         | mg/kg | 35 | 7.94           | 0.626 |                    | 6.2            | 0.34  |                    | 48.98          | 2.030   |                    |
| Mo                         | mg/kg | 8  | 0.358          | 0.040 |                    | 0.81           | 0.077 |                    | 1.470          | 0.170   |                    |

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.



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|---------------------------------------|-------|----|----------------|-------|--------------------|----------------|-------|--------------------|----------------|-------|--------------------|
|                                       |       |    | Median         | MAD   | Lab <sup>1,2</sup> | Median         | MAD   | Lab <sup>1,2</sup> | Median         | MAD   | Lab <sup>1,2</sup> |
| <b>Nitric / Perchloric- MICROWAVE</b> |       |    |                |       |                    |                |       |                    |                |       |                    |
| P                                     | %     | 19 | 0.350          | 0.017 |                    | 0.393          | 0.013 |                    | 0.330          | 0.020 |                    |
| K                                     | %     | 18 | 6.15           | 0.055 |                    | 1.81           | 0.093 |                    | 2.344          | 0.104 |                    |
| Ca                                    | %     | 17 | 1.85           | 0.052 |                    | 1.41           | 0.066 |                    | 1.350          | 0.070 |                    |
| Mg                                    | %     | 18 | 0.577          | 0.035 |                    | 0.438          | 0.014 |                    | 0.336          | 0.016 |                    |
| S                                     | %     | 17 | 0.290          | 0.019 |                    | 0.121          | 0.009 |                    | 0.500          | 0.040 |                    |
| Na                                    | %     | 15 | 0.030          | 0.004 |                    | 0.010          | 0.004 |                    | 0.180          | 0.009 |                    |
| Al                                    | mg/kg | 13 | 264.0          | 69.1  |                    | 205            | 64.5  |                    | 443            | 134.2 |                    |
| B                                     | mg/kg | 16 | 44.3           | 3.50  |                    | 35.6           | 2.39  |                    | 30.4           | 2.10  |                    |
| Zn                                    | mg/kg | 18 | 14.9           | 1.75  |                    | 22.1           | 2.10  |                    | 18.8           | 1.33  |                    |
| Mn                                    | mg/kg | 18 | 153.1          | 4.70  |                    | 109.9          | 1.83  |                    | 47             | 19.1  |                    |
| Fe                                    | mg/kg | 18 | 271.6          | 23.79 |                    | 248            | 25.7  |                    | 403.3          | 81.1  |                    |
| Cu                                    | mg/kg | 18 | 8.00           | 1.000 |                    | 6.5            | 0.76  |                    | 46.48          | 2.321 |                    |
| Mo                                    | mg/kg | 8  | 0.356          | 0.156 |                    | 0.77           | 0.221 |                    | 1.270          | 0.140 |                    |
| <b>Dry Ash</b>                        |       |    |                |       |                    |                |       |                    |                |       |                    |
| P                                     | %     | 18 | 0.355          | 0.015 |                    | 0.395          | 0.014 |                    | 0.323          | 0.017 |                    |
| K                                     | %     | 19 | 6.43           | 0.058 |                    | 1.77           | 0.095 |                    | 2.350          | 0.034 |                    |
| Ca                                    | %     | 19 | 1.85           | 0.056 |                    | 1.41           | 0.065 |                    | 1.390          | 0.090 |                    |
| Mg                                    | %     | 19 | 0.590          | 0.030 |                    | 0.444          | 0.016 |                    | 0.340          | 0.021 |                    |
| Na                                    | %     | 16 | 0.040          | 0.010 |                    | 0.020          | 0.010 |                    | 0.200          | 0.020 |                    |
| Al                                    | mg/kg | 9  | 314.0          | 40.00 |                    | 239            | 31.4  |                    | 463            | 98.9  |                    |
| B                                     | mg/kg | 19 | 47.0           | 4.04  |                    | 37.8           | 2.25  |                    | 33.7           | 2.50  |                    |
| Zn                                    | mg/kg | 18 | 14.3           | 2.20  |                    | 22.6           | 2.63  |                    | 19.9           | 2.30  |                    |
| Mn                                    | mg/kg | 19 | 150.0          | 1.87  |                    | 105.0          | 5.60  |                    | 46             | 17.9  |                    |
| Fe                                    | mg/kg | 16 | 289.5          | 24.50 |                    | 251            | 15.5  |                    | 428.5          | 46.1  |                    |
| Cu                                    | mg/kg | 18 | 8.32           | 1.315 |                    | 6.2            | 0.40  |                    | 47.06          | 2.94  |                    |
| Mo                                    | mg/kg | 2  | 1.33           | 1.005 |                    | 0.80           | 0.077 |                    | 1.26           | 0.690 |                    |

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