



2019 North American Proficiency Testing Program
 Quarter 1 Plant Report - Tuesday, April 16, 2019

Laboratory ID
 General

Plant Analysis	Units	n	Plant 2019-201			Plant 2019-202			Plant 2019-203		
			Median	MAD	Lab ^{1,2}	Median	MAD	Lab ^{1,2}	Median	MAD	Lab ^{1,2}
Nutrient Ions											
Dry Matter (%)	%	25	95.1	0.420		95.9	0.350		96.4	0.550	
NO3 - N Cd Rd.	mg/kg	25	20.0	03.0		16.4	03.8		36.3	04.3	
NO3 - N ISE	mg/kg	4	164	55.5		83.0	26.0		229	118	
NO3 - N Other	mg/kg	3	20.0	14.4		48.7	46.1		30.0	5.40	
NH4-N	mg/kg	4	66.4	4.00		90.1	30.9		105	31.0	
PO4 - P	mg/kg	9	1,370	90.0		679	13.9		1,360	64.1	
SO4 - S	mg/kg	3	173	18.0		701	13.9		562	33.0	
Cl	%	23	0.071	0.009		0.088	0.011		0.280	0.026	
TKN	%	11	3.06	0.160		1.04	0.090		2.59	0.120	
N- Dry Comb.	%	64	3.21	0.050		1.10	0.031		2.72	0.052	
S- Dry Comb.	%	7	0.160	0.000		0.160	0.020		0.160	0.010	
Nitric / Perchloric											
P	%	30	0.270	0.010		0.140	0.006		0.259	0.009	
K	%	29	2.55	0.083		0.575	0.025		2.91	0.080	
Ca	%	29	2.10	0.100		0.876	0.031		1.20	0.050	
Mg	%	29	0.533	0.023		0.230	0.010		0.351	0.016	
S	%	28	0.165	0.006		0.150	0.009		0.154	0.006	
Na	%	22	0.006	0.001		0.006	0.001		0.019	0.001	
Al	mg/kg	19	37.0	4.96		103	7.56		21.0	2.45	
B	mg/kg	26	40.6	2.24		32.9	1.92		22.6	1.25	
Zn	mg/kg	29	35.0	1.38		22.7	0.940		18.6	1.00	
Mn	mg/kg	29	53.0	2.87		316	14.7		41.0	2.00	
Fe	mg/kg	29	83.5	6.26		164	13.9		61.5	3.78	
Cu	mg/kg	30	10.0	0.580		4.40	0.400		7.73	0.730	
Mo	mg/kg	8	0.247	0.016		0.150	0.010		0.879	0.088	
Nitric / Peroxide- MICROWAVE											
P	%	39	0.270	0.010		0.140	0.008		0.260	0.011	
K	%	38	2.53	0.111		0.570	0.030		2.90	0.129	
Ca	%	39	2.04	0.080		0.830	0.038		1.18	0.040	
Mg	%	38	0.515	0.025		0.221	0.009		0.348	0.012	
S	%	35	0.160	0.010		0.150	0.010		0.157	0.007	
Na	%	29	0.006	0.001		0.005	0.001		0.019	0.002	
Al	mg/kg	23	65.2	07.2		110	8.50		31.0	7.10	
B	mg/kg	37	42.2	2.24		33.2	1.25		23.0	1.48	
Zn	mg/kg	38	36.1	1.63		22.0	1.10		19.0	0.965	
Mn	mg/kg	38	52.1	1.97		307	10.6		40.7	1.26	
Fe	mg/kg	38	91.6	6.05		173	17.6		64.8	3.30	
Cu	mg/kg	38	10.0	0.500		4.70	0.455		8.01	0.527	
Mo	mg/kg	13	0.200	0.024		0.220	0.046		0.870	0.136	
Dry Ash											
P	%	14	0.270	0.010		0.140	0.010		0.256	0.012	
K	%	14	2.64	0.205		0.595	0.050		3.00	0.185	

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.

Ca	%	14	2.03	<i>0.110</i>	0.834	<i>0.048</i>	1.16	<i>0.040</i>
Mg	%	14	0.528	<i>0.028</i>	0.224	<i>0.018</i>	0.345	<i>0.012</i>
Na	%	13	0.013	<i>0.001</i>	0.010	<i>0.001</i>	0.028	<i>0.002</i>
Al	mg/kg	3	52.3	<i>5.73</i>	84.7	<i>24.6</i>	26.9	<i>3.54</i>
B	mg/kg	14	42.0	<i>3.55</i>	33.2	<i>2.31</i>	23.2	<i>2.80</i>
Zn	mg/kg	14	37.0	<i>1.45</i>	21.5	<i>1.90</i>	19.0	<i>1.23</i>
Mn	mg/kg	14	49.8	<i>4.72</i>	279	<i>25.0</i>	39.8	<i>3.25</i>
Fe	mg/kg	14	87.8	<i>7.54</i>	156	<i>24.1</i>	65.9	<i>6.45</i>
Cu	mg/kg	14	10.7	<i>0.805</i>	4.86	<i>0.636</i>	8.05	<i>0.480</i>
Mo	mg/kg	4	0.440	<i>0.130</i>	0.380	<i>0.130</i>	1.00	<i>0.120</i>