

**1998 Interim North American Proficiency Testing Program**

**July 27, 1998**

**2<sup>nd</sup> Quarter Results**

**Plant ID - 98204**

Plant		Sample	Descriptive	Statistics					Lab ID
Analysis	Units	No.	Min	Max	Median	MAD <sup>1</sup>	RMD %	% Values < WL <sup>2</sup>	
Dry Matter	%	40	4.3	96.3	94.3	1.0	1.1	87.5	
NO <sub>3</sub> - N Cd Rd.	mg/kg	23	678	2223	1420	90	6.3	69.6	
NO <sub>3</sub> - N ISE	mg/kg	24	1272	11900	1800	335	18.6	95.8	
NO <sub>3</sub> - N Oth.	mg/kg	9	800	2300	1430	209	14.6	77.8	
PO <sub>4</sub> - P	mg/kg	23	3	2280	1380	241	17.5	82.6	
SO <sub>4</sub> - S	mg/kg	8	2500	6321	3450	600	17.4	75.0	
Cl	%	20	0.013	4.34	0.14	0.10	71.4	95.0	
TKN	%	40	1.48	4.64	4.07	0.14	3.4	76.9	
N- Dry Comb.	%	52	3.96	4.99	4.24	0.12	2.8	94.2	
S- Dry Comb.	%	16	0.16	1.00	0.566	0.106	18.7	81.3	
<b>Nitric / Perchloric</b>									
P	%	44	0.13	0.58	0.304	0.014	4.5	62.8	
K	%	46	2.28	6.34	4.90	0.270	5.5	82.2	
Ca	%	45	1.20	3.6	1.80	0.07	3.9	70.5	
Mg	%	44	0.81	2.37	1.40	0.08	5.7	81.4	
S	%	45	0.25	2.1	0.587	0.03	5.1	65.9	
Na	mg/kg	35	13400	27600	18460	1050	5.7	79.4	
B	mg/kg	30	30.0	84	54.5	3.6	6.6	76.7	
Zn	mg/kg	42	26.00	48.26	36.0	3.0	8.3	85.4	
Mn	mg/kg	41	335	524	427	27.0	6.3	82.5	
Fe	mg/kg	41	204	1713	1090	114	10.5	77.5	
Cu	mg/kg	42	8.0	27	16.0	1.8	11.2	92.7	
<b>Dry Ash</b>									
P	%	46	0.26	34.5	0.310	0.010	3.2	78.3	
K	%	46	3.69	5.90	4.85	0.26	5.4	82.6	
Ca	%	46	1.20	2.60	1.77	0.08	4.5	80.4	
Mg	%	46	0.15	1.8	1.36	0.115	8.5	84.8	
Na	mg/kg	33	0.20	28000	18620	1170	6.3	75.8	
B	mg/kg	47	30.0	83	54.2	3.6	6.7	74.5	
Zn	mg/kg	47	23.4	52	35.0	1.5	4.3	70.2	
Mn	mg/kg	46	332	853	418	35.0	8.4	95.7	
Fe	mg/kg	45	421	1502	827	148	17.9	84.4	
Cu	mg/kg	44	5	29	15.5	1.5	9.6	84.1	
<b>Microwave</b>									
P	%	13	0.28	0.45	0.329	0.019	5.8	84.6	
K	%	14	4.65	5.50	5.08	0.20	3.8	100.0	
Ca	%	14	1.60	2.14	1.90	0.15	7.7	100.0	
Mg	%	14	1.30	1.76	1.51	0.07	4.6	85.7	
S	%	12	0.6	0.71	0.637	0.038	6.0	100	
Na	mg/kg	12	16918	22881	20100	1100	5.5	83.3	
B	mg/kg	13	50.0	129	58.4	4.9	8.4	84.6	
Zn	mg/kg	14	29.6	70	39.1	5.1	13.0	85.7	
Mn	mg/kg	14	372	493	445	29.5	6.6	100.0	
Fe	mg/kg	14	810	1316	1090	190	17.4	100.0	
Cu	mg/kg	14	9.6	29	#NUM!	1.6	9.4	78.6	

1 - Values flagged exceed Warning Limits " \* " based on 2.5 x MAD (Median Absolute Deviation) and Control Limits " \*\* " based on 4 x MAD.

2 - Percentage (%) of all reported laboratory values within established Warning Limits.



# 1998 Interim North American Proficiency Testing Program

July 27, 1998

2<sup>nd</sup> Quarter Results

Plant ID - 98205

Plant	Sample		Descriptive	Statistics				Lab ID
Analysis	Units	No.	Min	Max	Median	MAD <sup>1</sup>	RMD %	% Values < WL <sup>2</sup>
Dry Matter	%	42	9.7	95.4	90.7	2.1	2.3	95.2
NO3 - N Cd Rd.	mg/kg	25	1696	6646	4530	275	6.1	68.0
NO3 - N ISE	mg/kg	24	3900	22000	4940	530	10.7	95.8
NO3 - N Oth.	mg/kg	10	3040	6480	4700	400	8.5	90.0
PO4 - P	mg/kg	24	3	5230	1400	60	4.3	70.8
SO4 - S	mg/kg	7	120	7220	800	390	48.8	85.7
Cl	%	24	0.67	7.99	4.30	0.30	7.0	75.0
TKN	%	43	0.10	4.1	1.20	0.10	8.3	81.0
N- Dry Comb.	%	51	1.11	2.09	1.47	0.05	3.4	78.4
S- Dry Comb.	%	17	0.04	0.71	0.070	0.011	15.0	70.6
<b>Nitric / Perchloric</b>								
P	%	44	0.15	0.88	0.197	0.011	5.8	83.7
K	%	46	1.65	5.54	2.28	0.120	5.3	86.7
Ca	%	45	0.75	1.3	0.99	0.05	5.1	84.1
Mg	%	44	0.36	1.5	0.43	0.03	6.0	88.4
S	%	45	0.02	0.2	0.063	0.01	21.1	79.5
Na	mg/kg	35	17350	38155	27400	1659	6.1	73.5
B	mg/kg	30	20.0	57	29.0	2.1	7.2	70.0
Zn	mg/kg	42	11.00	28	14.4	1.5	10.4	78.0
Mn	mg/kg	41	5	24	14	1.7	12.1	82.5
Fe	mg/kg	41	43	161	95	10	10.5	77.5
Cu	mg/kg	42	1.9	15	4.0	0.9	22.8	80.5
<b>Dry Ash</b>								
P	%	48	0.15	0.23	0.200	0.010	5.0	91.7
K	%	47	1.70	5.40	2.30	0.13	5.4	80.9
Ca	%	47	0.59	1.30	0.99	0.05	5.1	83.0
Mg	%	46	0.13	4.1	0.42	0.020	4.8	80.4
Na	mg/kg	34	0.27	35050	26000	2310	8.9	79.4
B	mg/kg	48	8.0	59	28.0	2.0	7.1	77.1
Zn	mg/kg	48	8.0	34	14.5	1.5	10.3	85.4
Mn	mg/kg	48	4.95	72	14	1.5	10.9	83.3
Fe	mg/kg	46	12	159	83	13	16.2	89.1
Cu	mg/kg	46	0.5	14	4.0	0.7	17.5	73.9
<b>Microwave</b>								
P	%	14	0.17	0.23	0.210	0.017	8.1	100.0
K	%	15	2.02	2.57	2.34	0.13	5.6	100.0
Ca	%	15	0.90	1.18	0.97	0.07	7.2	86.7
Mg	%	15	0.39	0.78	0.43	0.04	8.2	93.3
S	%	13	0.1	0.74	0.070	0.011	15.7	85
Na	mg/kg	13	24137	31400	28270	2056	7.3	100.0
B	mg/kg	14	6.6	80	29.4	3.7	12.6	78.6
Zn	mg/kg	15	12.5	26	14.8	2.1	14.5	80.0
Mn	mg/kg	15	11	21	15	1.2	7.7	80.0
Fe	mg/kg	15	78	166	91	11	11.5	80.0
Cu	mg/kg	14	3.5	18	#NUM!	0.7	16.7	71.4

1 - Values flagged exceed Warning Limits " \* " based on 2.5 x MAD (Median Absolute Deviation) and Control Limits " \*\* " based on 4 x MAD.

2 - Percentage (%) of all reported laboratory values within established Warning Limits.



# 1998 Interim North American Proficiency Testing Program

July 27, 1998

2<sup>nd</sup> Quarter Results

Plant ID - 98206

Plant	Sample		Descriptive		Statistics			Lab ID
Analysis	Units	No.	Min	Max	Median	MAD <sup>1</sup>	RMD %	% Values < WL <sup>2</sup>
Dry Matter	%	48	4.2	96.9	93.7	1.0	1.1	89.6
NO <sub>3</sub> - N Cd Rd.	mg/kg	30	1219	4582	3350	281	8.4	86.7
NO <sub>3</sub> - N ISE	mg/kg	32	3220	76300	3680	335	9.1	96.9
NO <sub>3</sub> - N Oth.	mg/kg	16	2460	5240	3220	340	10.6	93.8
PO <sub>4</sub> - P	mg/kg	31	3	2540	1380	143	10.4	83.9
SO <sub>4</sub> - S	mg/kg	15	1490	4500	2810	508	18.1	86.7
Cl	%	30	0.43	1.14	0.70	0.07	10.0	86.7
TKN	%	50	0.16	4.85	3.18	0.14	4.4	85.7
N- Dry Comb.	%	58	3.10	3.86	3.44	0.11	3.2	93.1
S- Dry Comb.	%	24	0.10	0.56	0.415	0.069	16.7	95.8
<b>Nitric / Perchloric</b>								
P	%	52	0.18	0.49	0.235	0.015	6.4	84.3
K	%	53	1.91	49.9	4.60	0.270	5.9	86.8
Ca	%	53	1.50	4.2	2.00	0.10	5.0	80.8
Mg	%	52	0.428	1.65	1.48	0.09	6.1	92.2
S	%	53	0.36	1.5	0.460	0.02	4.9	76.9
Na	mg/kg	42	0	1768	300	100	33.3	85.4
B	mg/kg	38	39.0	118	84.3	6.0	7.1	89.5
Zn	mg/kg	50	20.30	34.4	26.0	3.0	11.5	91.8
Mn	mg/kg	49	70	115.5	88	7.2	8.1	91.7
Fe	mg/kg	49	181	2415	1810	187	10.3	83.3
Cu	mg/kg	50	6.0	23	11.0	1.6	14.3	85.7
<b>Dry Ash</b>								
P	%	54	0.19	0.3	0.239	0.012	4.8	90.7
K	%	54	3.27	6.73	4.60	0.28	6.0	94.4
Ca	%	54	1.44	2.98	1.97	0.10	5.1	79.6
Mg	%	54	0.16	2.3	1.40	0.100	7.1	85.2
Na	mg/kg	41	1.21	26400	406	87	21.4	90.2
B	mg/kg	55	17.0	136	85.8	5.2	6.1	76.4
Zn	mg/kg	55	15.7	85	25.0	2.0	8.0	89.1
Mn	mg/kg	55	72	1298	86	6.1	7.0	98.2
Fe	mg/kg	53	85	2754	1520	300	19.7	94.3
Cu	mg/kg	52	2	20	10.8	1.2	11.1	78.8
<b>Microwave</b>								
P	%	13	0.22	0.29	0.240	0.010	4.2	84.6
K	%	14	4.36	4.97	4.89	0.07	1.4	64.3
Ca	%	14	1.80	2.62	2.09	0.11	5.0	85.7
Mg	%	14	1.40	1.87	1.63	0.12	7.4	100.0
S	%	12	0.4	0.59	0.490	0.025	5.1	83
Na	mg/kg	12	2	829	292	114	39.1	83.3
B	mg/kg	13	80.0	197	90.0	4.3	4.8	84.6
Zn	mg/kg	14	20.9	41	27.4	2.4	8.8	85.7
Mn	mg/kg	14	78	112	93	5.9	6.3	92.9
Fe	mg/kg	14	1310	2823	1960	143	7.3	78.6
Cu	mg/kg	14	4.7	26	11.7	1.5	13.1	78.6

1 - Values flagged exceed Warning Limits " \* " based on 2.5 x MAD (Median Absolute Deviation) and Control Limits " \* \* " based on 4 x MAD.  
 2 - Percentage (%) of all reported laboratory values within established Warning Limits.