

Soil	Soil 01-111 (65)		Soil 01-112 (66)		Soil 01-113 (67)		Soil 01-114 (68)		Soil 01-115 (69)							
Analysis	Units	N	Median	MAD	Lab ¹	Median	MAD	Lab	Median	MAD	Lab					
Salinity																
Sat. Paste Moisture	%	36	56.9	5.4		44.1	2.8		25.4	1.8		32.3	2.7		27.8	1.8
pH - sp	Unit	45	8.19	0.18		7.62	0.08		8.40	0.21		7.70	0.10		7.41	0.09
ECe - sp	ds/m	45	0.25	0.05		1.64	0.17		0.29	0.05		1.18	0.15		0.86	0.15
HCO ₃ - sp	mmol/L	15	2.05	0.48		3.24	1.30		2.96	0.96		4.75	0.99		6.34	1.20
Ca - sp	mmol/L	38	0.50	0.15		12.0	1.87		1.98	0.47		6.30	1.11		5.14	0.80
Mg - sp	mmol/L	38	1.58	0.25		2.21	0.31		1.15	0.31		2.85	0.48		2.81	0.59
Na - sp	mmol/L	39	0.27	0.12		0.60	0.12		0.42	0.15		1.99	0.18		0.94	0.17
SAR - sp	value	35	0.25	0.13		0.21	0.07		0.30	0.10		0.90	0.09		0.45	0.07
Cl - sp	mmol/L	22	0.31	0.10		0.46	0.09		0.29	0.16		4.43	0.75		0.99	0.24
SO ₄ - sp	mmol/L	24	0.16	0.05		0.97	0.21		0.36	0.09		1.54	0.41		1.25	0.28
B - sp	mg/L	21	0.06	0.02		0.10	0.03		0.05	0.02		0.11	0.03		0.20	0.04
Soil EC																
Soil EC (1:1)	(ds/m)	28	0.18	0.04		0.82	0.14		0.11	0.03		0.39	0.06		0.24	0.05
Soil EC (1:2)	(ds/m)	43	0.12	0.02		0.49	0.07		0.12	0.03		0.28	0.04		0.24	0.04
Soil pH																
pH (1:1)	Unit	85	8.24	0.16		7.92	0.08		8.70	0.17		8.10	0.10		7.76	0.11
pH (1:2)	Unit	33	8.12	0.23		8.04	0.17		8.80	0.30		8.19	0.16		7.86	0.14
pH (1:1) 0.01M CaCl ₂	Unit	19	7.89	0.26		7.64	0.10		7.90	0.15		7.69	0.07		7.29	0.09
pH (1:2) 0.01M CaCl ₂	Unit	11	8.00	0.20		7.70	0.14		8.00	0.20		7.65	0.14		7.30	0.10
Buffer pH																
SMP Buffer pH	Unit	37	7.59	0.09		7.54	0.05		7.60	0.06		7.54	0.06		7.47	0.07
Adams-Evans Buf pH	Unit	12	7.91	0.02		7.79	0.04		7.95	0.03		7.85	0.01		7.89	0.02
Woodruff Buf. pH	Unit	10	7.13	0.05		7.11	0.03		7.08	0.05		7.08	0.01		7.07	0.03
Mehlich Buf. pH	Unit	3	6.96	0.00		6.77	0.00		6.76	0.00		6.79	0.00		6.67	0.00

Analysis	Units	Median	MAD	Lab ¹	3 rd Quartile	Report	October 29, 2001	Median	MAD	Lab	Median	MAD	Lab
Nitrate (NO ₃ -N)													
Cd. Rd.	mg/kg	54	3.6	0.58	77.5	6.0	1.2	0.69	11.0	1.05	10.1	0.97	
ISE	mg/kg	28	3.0	0.76	77.5	14.3	2.6	0.63	10.9	2.0	11.4	1.6	
CTA	mg/kg	8	4.0	1.5	73.0	6.5	1.0	0.08	11.3	0.47	10.9	0.74	
Ion Chromatography	mg/kg	3	1.8	0.5	94.4	4.1	3.5	0.89	12.3	1.4	12.4	0.64	
Other	mg/kg	13	3.0	1.8	74.0	5.0	2.1	1.5	10.1	1.6	9.4	1.5	
NH ₄ - N (KCl Extr.)	mg/kg	44	2.3	0.7	12.9	1.4	1.0	0.5	24.6	2.2	4.6	0.63	
Phosphorus & Sulfur													
PO ₄ -P Bray P1 (1:10)	mg/kg	50	4.0	1.0	6.0	2.5	8.0	1.0	55.0	4.0	80.6	7.6	
PO ₄ -P Bray P1 (1:7)	mg/kg	13	3.7	1.0	5.9	3.1	6.1	0.9	47.7	8.3	64.5	13.5	
PO ₄ -P Olsen/Bicarb	mg/kg	69	4.0	1.0	13.1	1.6	3.2	1.2	25.5	2.1	39.8	4.9	
PO ₄ -P AB-DTPA	mg/kg	4	4.8	0.8	10.0	3.1	3.5	1.4	17.0	4.1	39.6	10.5	
PO ₄ -P M. Morgan	mg/kg	9	2.5	1.1	27.0	3.2	10.9	2.00	31.7	6.3	51.0	9.9	
PO ₄ -P M. Kewlona	mg/kg	2	3.8	0.2	19.2	6.8	5.0	0.40	38.0	3.0	67.0	5.0	
PO ₄ -P Strg Bray P-2	mg/kg	8	22	3.0	77.5	13	95.0	14.4	123.5	10.0	159	28	
SO ₄ -S (PO ₄ Extr.)	mg/kg	47	50	26	10.0	4.0	5.8	2.7	9.7	2.3	9.8	2.5	
Ammonium Ace. Bases													
K	mg/kg	93	26.0	5.0	518	34	106	13	444	44	275	26	
Ca	mg/kg	87	448	84	5560	665	2080	202	2000	165	2390	287	
Mg	mg/kg	86	672	69	351	30	231	28	352	33	242	23	
Na	mg/kg	67	13.9	6.1	20.9	6.2	16.0	6.0	47.0	10.0	21.0	6.0	
K - Bray (1:10)	mg/kg	2	42.5	8.0	365	44	110	4.4	401	49	282	15	
K - Bicarb.	mg/kg	8	35.5	4.5	473	27.0	95	10	324	12	261	13	
K Modified Morgan	mg/kg	7	33.0	1.7	397	81	102	26	384	90	261	23	
Ca Modified Morgan	mg/kg	4	745	82	18700	6798	3940	217	3080	454	4530	92	
Al KCL Extr.	mg/kg	6	0.53	0.23	0.95	0.67	1.89	0.21	1.30	1.0	0.65	0.58	

Analysis	Units	Median MAD 2006 ¹ Northern American Proficiency Testing Program Median MAD Lab										
2 nd Tripartite Report October 29, 2007												
Mehlich-1 Multi Element												
Soil Scoop Mass	g	11	4.87	0.95	5.00	0.82	6.06	1.06	5.38	0.38	5.52	0.52
P	mg/kg	12	16.8	0.8	13.4	4.9	86	14	93	7.2	88	23
K	mg/kg	12	23	4.4	210	20.9	67	5.9	295	29.5	220	26.1
Ca	mg/kg	12	609	36	5571	946	2643	274	2145	202	3910	406
Mg	mg/kg	12	818	178	242	23	231	19.7	364	26	347	22
Zn	mg/kg	12	0.92	0.16	0.13	0.06	0.38	0.15	2.42	0.20	13.2	0.34

P	Colorimetric	mg/kg	18	6.0	1.0	38.9	2.2	12.4	1.4	68.0	7.5	93.0	8.5
P	ICP	mg/kg	34	6.6	2.1	44.9	3.9	12.7	1.2	75.1	7.5	111	9.2
K		mg/kg	45	30	4.5	538	38	114	14.8	493	47	312	28
Ca		mg/kg	42	580	58	7300	640	2710	356	2470	238	3640	340
Mg		mg/kg	42	1150	130	440	26	288	27.8	440	47	326	28
Na		mg/kg	24	13.2	5.0	25.0	6.7	16.0	6.2	47.4	6.5	22.8	6.2
S		mg/kg	21	129	10.7	23.0	3.3	12.9	4.9	20.8	5.8	20.3	3.7
Al		mg/kg	21	207	14	202	31	251	49	382	62	296	57
Zn		mg/kg	36	0.86	0.19	0.92	0.18	0.46	0.16	3.68	0.44	17.9	2.2
Mn		mg/kg	34	78.9	9.4	120	11	21.8	4.9	86	10.1	103	12.0
Fe		mg/kg	32	162	16	29.5	4.5	55.2	10.0	56	8.7	173	21.7
Cu		mg/kg	34	1.11	0.10	1.65	0.16	1.11	0.20	1.80	0.12	3.06	0.24
B		mg/kg	28	0.78	0.09	1.90	0.20	0.28	0.08	1.20	0.16	1.20	0.10

Micronutrients

Zn - DTPA	mg/kg	75	0.17	0.07	0.30	0.08	0.13	0.06	1.18	0.18	7.00	0.80
Mn - DTPA	mg/kg	69	1.11	0.29	4.50	1.05	0.96	0.24	3.10	0.90	19.3	1.9
Fe - DTPA	mg/kg	71	3.20	0.70	2.10	0.36	5.80	1.4	4.19	0.64	23.2	2.7
Cu - DTPA	mg/kg	70	0.29	0.09	0.50	0.08	0.38	0.08	0.80	0.10	1.50	0.11
Zn - HCl	mg/kg	10	1.18	0.26	0.40	0.35	0.86	0.22	4.0	0.09	16.0	3.4
Mn-H ₃ PO ₄	mg/kg	7	19.1	2.3	4.1	1.2	9.2	1.0	14.9	3.06	39.9	2.7
Cl - Ca(NO ₃) ₂ Extr.	mg/kg	18	10.0	2.5	7.1	0.9	2.5	1.2	51.6	4.4	9.0	1.3
B - Hot Water	mg/kg	53	0.36	0.09	0.73	0.17	0.15	0.05	0.61	0.12	0.76	0.16
B - DTPA-Sorb	mg/kg	10	0.30	0.04	0.90	0.11	0.10	0.02	0.58	0.10	0.60	0.09

Soil Organic Matter

Soil Kjeldahl N	%	24	0.034	0.010	0.101	0.015	0.012	0.005	0.075	0.006	0.080	0.011
Soil TN (combustion)	%	28	0.030	0.010	0.103	0.010	0.010	0.005	0.080	0.009	0.074	0.013
Soil TOC (combustion)	%	18	0.39	0.03	1.28	0.25	0.13	0.05	0.65	0.02	0.87	0.07
SOM - Walkley-Black	%	60	0.70	0.14	1.81	0.18	0.20	0.10	1.13	0.13	1.56	0.24
SOM - LOI (Raw Values)	%	64	1.20	0.16	2.28	0.27	0.49	0.11	1.36	0.16	1.50	0.12

CaCO₃ Content

	%	23	1.05	0.87	5.30	0.48	1.00	0.32	0.86	0.30	1.52	0.32
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Soil CEC

	mmol/kg	31	8.8	2.2	22.5	2.7	4.8	0.77	10.5	1.5	7.6	1.4
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Particle Size Analysis

Sand 2000 - 50 um	%	52	50.0	5.2	48.0	4.4	91.5	2.3	73.9	2.0	60.9	2.9
Silt 50 - 2 um	%	52	29.0	4.0	29.0	2.0	5.3	1.6	11.0	1.5	28.8	1.4
Clay 2 - 0 um	%	52	17.8	3.2	22.8	2.8	3.0	1.0	15.0	2.0	9.8	1.8



Laboratory ID

Plant

Plant 01-207

Plant 01-208

Plant 01-209

Analysis

Units N Median MAD Lab

Median MAD Lab

Median MAD Lab

Dry Matter

% 32 93.5 0.80

93.5 0.62

93.0 0.97

NO₃ - N Cd Pb flagged exceed Warning Limits *** based on 2.5x MAD (Median Absolute Deviation) and Control Limits *** based on 4 x MAD.