APPENDIX A Soil analysis data

XCoord	YCoord	MNr	Lab	pH	Org C	P	P	Ca	K	Na	Mg	Resistance	Clay	Sand	Silt	Water retention
				(H2O)	(Walkley Black)	(Bray1)	(Ambic)	(Ammonium Acetate extract)					(Hydrometer - 3 fractions)			(-33kPa)
27.82901	-25.55235	G1	M948	8.47	1.36	9.29	19.71	6959	468	115	1464	380	46	28.18	25.82	31.88
27.82921	-25.55230	G2	M991	8.14	1.47	10.01	9.75	4865	316	92	851	460	50	21.12	28.88	33.60
27.82938	-25.55224	G3	M935	8.44	1.19	10.07	16.68	7085	346	216	1551	360	46	28.48	25.52	30.09
27.82957	-25.55219	G4	M1020	8.53	1.14	7.97	11.05	6553	239	184	1727	460	44	30.1	25.9	33.76
27.82976	-25.55213	G5	M996	8.30	1.3	19.54	12.13	5992	270	114	994	420	44	27.9	28.1	32.88
27.82996	-25.55208	G6	M1001	8.38	1.34	6.86	12.13	8657	320	158	1709	420	46	27.06	26.94	34.11
27.83015	-25.55202	G7	M946	8.44	1.22	9.84	15.38	7311	348	146	1480	340	44	31.38	24.62	32.43
27.83035	-25.55197	G8	M1018	8.50	1.36	7.77	21.88	6683	399	122	1548	460	50	25.24	24.76	37.50
27.82910	-25.55255	G9	M1052	8.38	1.17	5.75	17.52	6551	306	144	1620	420	44	37.74	18.26	25.78
27.82926	-25.55249	G10	M979	8.18	1.38	10.48	18.63	4428	308	101	902	380	42	29.14	28.86	32.57
27.82946	-25.55244	G11	M1005	8.50	1.23	7.91	11.05	6686	263	127	1592	440	44	28.02	27.98	32.52
27.82965	-25.55238	G12	M980	8.62	1.1	4.87	7.80	6490	198	194	1633	400	42	35.56	22.44	29.99
27.82985	-25.55233	G13	M958	8.47	1.14	3.34	10.18	7024	204	129	1664	380	44	31.6	24.4	30.51
27.83004	-25.55227	G14	M987	8.38	1.22	8.99	7.26	6728	247	110	995	440	42	32.92	25.08	31.73
27.83024	-25.55222	G15	M1045	8.57	1.21	4.20	14.68	6579	309	257	1547	540	46	31.2	22.8	29.02
27.83040	-25.55213	G16	M985	8.47	1.12	7.6	14.84	6123	336	118	1510	440	44	32.46	23.54	29.10
27.82915	-25.55272	G17	M921	8.64	1.06	9.77	20.15	5685	271	184	1462	380	42	36.14	21.86	25.77
27.82935	-25.55266	G18	M1013	8.12	1.46	9.77	25.13	4029	352	73	776	460	46	33.2	20.8	30.86
27.82954	-25.55260	G19	M918	8.36	1.33	9.18	16.25	6600	318	78	992	420	40	38.98	21.02	26.91
27.82974	-25.55255	G20	M937	8.64	1.12	8.11	30.54	6348	256	268	1737	380	40	38.74	21.26	29.05
27.82990	-25.55247	G21	M956	8.26	1.19	4.68	14.30	6076	254	158	1670	440	44	33.26	22.74	30.30
27.83010	-25.55244	G22	M895	8.48	1.15	7.20	7.80	6556	261	106	1455	420	44	32.12	23.88	30.23
27.83029	-25.55238	G23	M1061	8.25	1.33	7.56	11.61	7440	283	89	861	480	44	32.04	23.96	26.19
27.83049	-25.55233	G24	M1033	8.70	1.02	11.67	12.79	5712	240	279	996	400	44	37.72	18.28	27.40
27.82924	-25.55288	G25	M938	8.76	0.96	12.18	19.71	5497	267	253	1651	380	40	33.56	26.44	27.34
27.82943	-25.55283	G26	M1038	8.18	1.36	8.85	26.05	4102	245	84	713	600	40	36.42	23.58	26.07
27.82963	-25.55277	G27	M925	8.87	1.02	11.10	22.75	5607	274	520	1504	340	42	38.28	19.72	26.24
27.82979	-25.55272	G28	M1006	8.67	1.06	5.64	16.36	5345	276	349	1518	440	40	40.04	19.96	26.09
27.82999	-25.55266	G29	M992	8.42	1.23	11.81	13.22	5826	249	198	1681	360	42	36.44	21.56	30.97

27.83018	-25.55260	G30	M1059	8.30	1.29	4.13	9.59	5381	231	91	917	460	46	26.78	27.22	28.54
27.83038	-25.55255	G31	M997	8.56	1.06	5.64	9.32	6820	300	272	1917	440	46	30.6	23.4	30.69
27.83057	-25.55249	G32	M886	8.35	0.95	6.32	11.05	6512	254	118	1568	440	50	29.76	20.24	30.53
27.82929	-25.55305	G33	M962	8.40	1.08	14.12	31.62	5094	259	87	852	420	44	32.52	23.48	27.32
27.82949	-25.55299	G34	M1054	7.94	1.40	5.04	30.78	3398	247	78	643	1400	48	30.22	21.78	21.76
27.82968	-25.55294	G35	M950	8.57	1.08	14.46	25.24	4727	258	143	940	360	40	40.72	19.28	25.31
27.82988	-25.55288	G36	M903	8.69	1.05	13.67	25.78	5128	242	223	1415	440	40	42.86	17.14	21.36
27.83004	-25.55283	G37	M1007	8.58	1.08	7.16	16.47	5328	233	220	1516	440	40	38.76	21.24	26.07
27.83024	-25.55277	G38	M1028	8.47	1.24	3.29	16.47	3562	203	118	831	500	44	34.18	21.82	26.22
27.83043	-25.55272	G39	M891	8.76	1.04	8.44	25.34	5737	337	323	1718	380	46	33.2	20.8	32.45
27.83063	-25.55266	G40	M1053	8.45	0.98	6.22	12.91	5394	283	95	1481	440	44	35.78	20.22	25.99
27.82938	-25.55322	G41	M995	7.87	1.18	9.26	40.29	3784	281	89	680	1600	40	39.2	20.8	24.11
27.82957	-25.55316	G42	M1026	7.68	1.42	9.67	45.70	2445	262	75	597	1600	40	41.92	18.08	21.49
27.82976	-25.55310	G43	M883	8.44	1.23	20.47	41.91	4092	359	167	773	1500	40	40	20	26.72
27.82996	-25.55305	G44	M1043	8.56	1.08	4.97	29.36	4593	240	154	797	440	40	40.12	19.88	23.55
27.83015	-25.55299	G45	M951	8.38	1.22	13.90	26.10	5492	349	131	1433	380	42	36.9	21.1	27.23
27.83032	-25.55294	G46	M972	8.46	1.14	9.82	65.19	6031	357	198	1683	400	40	37.36	22.64	26.52
27.83051	-25.55288	G47	M983	8.95	0.88	7.20	15.60	5616	305	531	1700	360	42	38.82	19.18	28.07
27.83071	-25.55283	G48	M1029	8.50	0.98	8.62	15.04	5392	221	162	1518	480	42	38.12	19.88	24.72
27.82946	-25.55338	G49	M893	7.67	1.24	22.58	43.43	2234	297	76	641	480	40	40.1	19.9	21.04
27.82965	-25.55333	G50	M988	7.53	1.42	4.70	44.62	1985	206	56	515	1600	40	42.92	17.08	23.54
27.82985	-25.55327	G51	M913	7.81	1.38	22.04	32.27	2495	226	62	594	1600	40	45.02	14.98	21.44
27.83001	-25.55322	G52	M982	8.14	1.16	10.68	29.68	2710	170	128	728	380	40	40.04	19.96	21.26
27.83021	-25.55316	G53	M943	8.56	1.08	12.92	24.59	4046	214	181	891	420	50	35.02	14.98	25.67
27.83040	-25.55310	G54	M909	8.64	1.08	8.45	18.63	5302	224	202	1437	400	40	41.08	18.92	23.69
27.83057	-25.55305	G55	M1022	8.74	1	6.22	20.36	4503	258	198	986	460	40	40.2	19.8	24.17
27.83076	-25.55299	G56	M1055	8.76	0.95	15.32	17.05	5407	265	371	1655	380	40	35.18	24.82	25.86
27.82951	-25.55355	G57	M1016	7.68	1.12	6.79	25.67	1870.	154	60	462	1400	46	41.9	12.1	21.21
27.82971	-25.55349	G58	M926	7.65	1.03	8.41	21.99	1953	123	65	532	1600	42	37.68	20.32	21.94
27.82990	-25.55344	G59	M878	7.68	1.18	11.96	32.49	2476	180	91	728	1500	40	42.26	17.74	25.30
27.83010	-25.55338	G60	M959	7.67	1.32	10.29	28.05	3344	143	62	599	1400	44	36.68	19.32	24.28
27.83029	-25.55333	G61	M1024	7.74	1.32	6.22	26.86	2487	177	74	601	1600	40	38.28	21.72	23.25
27.83049	-25.55327	G62	M1002	8.44	1.09	6.02	14.73	3976	198	192	766	440	40	41.78	18.22	24.41
27.83065	-25.55322	G63	M919	8.56	1.06	12.74	19.82	4345	234	133	964	380	42	33.3	24.7	28.51

27.83085	-25.55316	G64	M957	8.53	1.16	10.44	25.34	5364	284	268	1575	500	44	36.74	19.26	26.59
27.82960	-25.55372	G65	M970	7.68	1.08	11.06	35.41	3100	166	80	525	1600	40	45.28	14.72	22.64
27.82979	-25.55366	G66	M875	7.61	1.16	15.28	38.23	1565	111	64	399	1600	38	47.2	14.8	20.68
27.82999	-25.55360	G67	M927	7.58	1.1	11.81	29.46	1854	132	62	440	1600	40	41.86	18.14	19.13
27.83015	-25.55355	G68	M954	7.66	1.17	8.08	16.68	2068	106	70	581	440	40	41.28	18.72	20.83
27.83035	-25.55349	G69	M876	7.57	1.33	17.62	39.20	1737	119	64	411	1600	42	40.22	17.78	27.99
27.83054	-25.55344	G70	M928	7.73	1.26	20.28	42.02	3730	154	83	641	1600	44	37.9	18.1	25.20
27.83074	-25.55338	G71	M911	7.85	1.16	14.38	26.21	2678	169	92	727	440	44	35.16	20.84	25.70
27.83093	-25.55333	G72	M989	8.08	1.19	17.58	27.29	2964	192	125	884	420	40	41.68	18.32	26.10
27.83017	-25.55201	G7.1	M955	8.64	1.08	6.21	9.43	7135	227	316	1558	400	46	30.38	23.62	34.83
27.83019	-25.55200	G7.2	M907	8.88	1.12	8.08	15.27	6176	249	517	1522	340	46	29.7	24.3	32.01
27.83022	-25.55200	G7.3	M905	8.74	1.1	10.77	16.47	6421	298	459	1592	360	46	28.96	25.04	33.70
27.83016	-25.55204	G7.4	M917	8.69	1.06	7.34	12.13	7916	226	202	1512	380	42	32.36	25.64	29.87
27.83018	-25.55203	G7.5	M922	8.67	1.08	9.92	13.22	7981	272	243	1831	400	46	25.62	28.38	30.81
27.83020	-25.55203	G7.6	M1019	8.67	1.26	9.60	45.70	5164	270	254	964	440	44	29.8	26.2	31.90
27.83023	-25.55202	G7.7	M923	8.79	1.13	8.33	15.27	6400	285	341	1649	420	44	32.62	23.38	31.82
27.83017	-25.55206	G7.8	M1049	8.78	1.07	8.75	12.35	6083	184	325	893	400	40	33.8	26.2	27.76
27.83019	-25.55206	G7.9	M1060	8.65	1.12	4.30	12.13	5777	239	200	946	440	44	31.76	24.24	26.36
27.83021	-25.55205	G7.10	M1010	8.80	1.13	7.50	14.30	6088	257	370	971	380	40	28.74	31.26	32.22
27.83024	-25.55205	G7.11	M894	8.94	1.10	11.03	17.33	6432	283	462	1591	380	46	27.3	26.7	32.61
27.83018	-25.55209	G7.12	M1008	8.91	0.95	7.03	17.55	5713	175	473	864	460	40	34.1	25.9	29.03
27.83020	-25.55208	G7.13	M872	8.81	1.01	6.57	12.13	6829	244	487	1761	1600	46	32.1	21.9	31.51
27.83022	-25.55207	G7.14	M897	8.94	0.99	10.99	21.67	6116	255	442	1456	400	42	29.5	28.5	34.64
27.83025	-25.55207	G7.15	M981	8.85	1.03	8.65	14.56	6894	259	509	1595	420	42	32.4	25.6	32.85
27.82928	-25.55248	G10.1	M1014	8.06	1.48	13.07	17.55	5035	280	226	893	440	48	23.9	28.1	34.24
27.82930	-25.55247	G10.2	M904	8.26	1.3	9.11	13.43	3737	175	90	811	420	50	23.02	26.98	33.94
27.82933	-25.55247	G10.3	M1056	8.20	1.40	7.03	9.36	5304	249	102	850	440	48	23.94	28.06	31.17
27.82927	-25.55251	G10.4	M977	8.33	1.27	8.45	14.52	4644	250	108	883	420	42	26.52	31.48	30.61
27.82929	-25.55251	G10.5	M1037	8.17	1.37	3.46	15.87	5153	224	89	746	480	44	28.16	27.84	28.78
27.82931	-25.55250	G10.6	M994	8.16	1.4	10.75	15.49	5251	306	92	789	500	40	28.24	31.76	31.54
27.82934	-25.55249	G10.7	M1015	8.14	1.38	9.94	12.13	4575	271	97	830	480	40	24.54	35.46	31.50
27.82928	-25.55253	G10.8	M1035	8.34	1.29	8.41	16.81	5046	201	87	740	480	46	27.1	26.9	28.54
27.82930	-25.55253	G10.9	M933	8.37	1.29	9.66	14.84	4781	221	105	892	380	46	25.76	28.24	31.73
27.82932	-25.55252	G10.10	M932	8.26	1.31	9.18	11.27	4747	258	105	898	420	46	26.98	27.02	31.31

27.82935	-25.55252	G10.11	M961	8.30	1.33	9.81	16.03	4346	222	106	875	400	46	22.62	31.38	30.50
27.82929	-25.55256	G10.12	M1030	8.37	1.26	7.10	8.67	5290	245	109	862	480	46	28.28	25.72	27.01
27.82931	-25.55255	G10.13	M912	8.35	1.26	9.36	12.13	4809	229	109	869	440	46	27.46	26.54	31.67
27.82933	-25.55254	G10.14	M908	8.17	1.35	10.44	15.49	4816	267	111	917	480	42	25.96	32.04	31.67
27.82936	-25.55254	G10.15	M915	8.24	1.3	8.52	13.00	5468	239	93	902	1600	44	25.46	30.54	30.30
27.82992	-25.55246	G21.1	M968	8.64	0.98	3.19	5.64	6110	153	188	1749	420	48	30.38	21.62	29.85
27.82994	-25.55245	G21.2	M944	8.67	0.93	4.46	8.89	6645	125	172	1735	380	50	30.44	19.56	30.31
27.82997	-25.55245	G21.3	M973	8.54	1.07	3.37	8.89	6621	190	224	1637	380	44	32.84	23.16	31.41
27.82991	-25.55249	G21.4	M931	8.60	1.04	5.22	5.75	5227	185	133	1585	400	46	30.94	23.06	28.14
27.82993	-25.55248	G21.5	M880	8.57	1.01	4.93	6.07	5975	200	183	1866	1600	48	32.78	19.22	33.23
27.82995	-25.55248	G21.6	M1027	8.42	1.07	19.06	5.10	6185	219	167	1750	460	44	30.42	25.58	30.73
27.82998	-25.55247	G21.7	M874	8.53	1.07	4.86	8.34	5938	194	137	1543	1400	46	32.74	21.26	29.09
27.82992	-25.55251	G21.8	M934	8.85	1.01	4.21	6.18	5428	141	157	1584	420	46	29.56	24.44	29.70
27.82994	-25.55251	G21.9	M949	8.62	1.03	5.30	6.72	5574	147	180	1613	380	44	29.94	26.06	25.42
27.82996	-25.55250	G21.10	M1044	8.48	1.05	12.18	6.75	5973	170	129	1657	480	40	34.18	25.82	29.07
27.82999	-25.55250	G21.11	M978	8.56	1.04	4.47	6.29	6055	156	125	1659	400	44	29.2	26.8	31.69
27.82993	-25.55254	G21.12	M902	8.65	0.94	5.44	7.80	5283	158	152	1673	400	46	30.26	23.74	26.81
27.82995	-25.55253	G21.13	M929	8.56	1.01	5.04	8.89	5796	187	147	1679	380	46	29.7	24.3	29.73
27.82997	-25.55252	G21.14	M965	8.68	1.03	3.95	7.80	5648	133	136	1553	420	46	31.56	22.44	31.08
27.83000	-25.55252	G21.15	M952	8.49	1.07	4.35	29.57	6124	214	167	1760	440	42	34.42	23.58	30.73
27.82931	-25.55304	G33.1	M887	8.46	1.08	11.58	16.47	3758	230	86	797	480	40	36.66	23.34	27.00
27.82933	-25.55303	G33.2	M986	8.30	1.14	9.16	21.66	4867	209	96	837	460	40	34.16	25.84	26.19
27.82936	-25.55303	G33.3	M877	8.40	1.07	10.92	16.47	2705	137	74	633	1500	42	34.26	23.74	26.64
27.82930	-25.55307	G33.4	M964	8.37	1.01	12.18	22.10	4274	205	75	700	440	40	41.64	18.36	23.10
27.82932	-25.55306	G33.5	M953	8.21	1.05	9.14	16.47	4212	187	91	758	1400	40	37.04	22.96	26.21
27.82934	-25.55306	G33.6	M1057	8.18	1.17	5.54	18.47	3766	143	71	663	480	40	34.3	25.7	16.39
27.82937	-25.55305	G33.7	M1025	8.12	1.18	9.97	27.83	3116	168	91	699	500	40	33.8	26.2	24.39
27.82931	-25.55309	G33.8	M884	8.16	0.95	11.88	19.93	2873	192	73	723	1600	44	34.1	21.9	26.32
27.82933	-25.55309	G33.9	M1034	8.10	1.18	5.51	22.26	3329	144	72	672	500	40	37.24	22.76	24.59
27.82935	-25.55308	G33.10	M1003	8.12	1.19	11.13	16.79	4105	150	82	731	460	40	37.52	22.48	25.67
27.82938	-25.55308	G33.11	M969	8.07	1.17	8.75	19.71	3934	152	88	741	480	42	35.74	22.26	26.42
27.82932	-25.55312	G33.12	M1048	8.60	1.09	6.86	22.02	3542	149	87	675	460	40	40.92	19.08	20.75
27.82934	-25.55311	G33.13	M1040	8.14	1.07	4.84	21.78	4104	158	95	827	640	40	41.7	18.3	23.19
27.82936	-25.55310	G33.14	M940	8.14	1.2	13.34	21.12	2755	151	73	712	560	42	41.06	16.94	23.19

27.82939	-25.55310	G33.15	M879	8.15	1.11	11.81	21.88	2238	116	73	643	1600	44	32.38	23.62	22.83
27.83034	-25.55293	G46.1	M1058	8.56	1.06	9.19	17.17	4772	215	186	944	380	42	36.84	21.16	22.47
27.83036	-25.55293	G46.2	M906	8.87	0.89	7.05	13.22	4777	162	279	1445	360	42	37.62	20.38	27.16
27.83039	-25.55292	G46.3	M1023	8.82	0.90	8.38	13.22	4967	171	300	1486	440	42	36.6	21.4	26.07
27.83033	-25.55296	G46.4	M1011	8.72	0.97	8.41	9.43	5380	217	332	1606	440	40	39.22	20.78	27.56
27.83035	-25.55296	G46.5	M998	8.60	1.05	4.16	13.22	4257	246	255	977	420	44	31.62	24.38	27.60
27.83037	-25.55295	G46.6	M888	8.74	0.99	8.15	27.29	5166	238	310	1555	420	42	38.1	19.9	26.99
27.83040	-25.55294	G46.7	M1000	8.94	0.92	7.20	9.97	6031	217	442	1732	440	40	37.38	22.62	26.56
27.83034	-25.55298	G46.8	M939	8.85	0.93	7.31	9.97	5578	163	322	1679	380	40	36.96	23.04	25.40
27.83036	-25.55298	G46.9	M1009	8.65	1.02	7.53	15.38	5231	211	341	1491	440	44	43.82	12.18	23.41
27.83038	-25.55297	G46.10	M971	8.78	0.98	6.02	15.38	5354	160	305	1496	440	44	36.8	19.2	26.32
27.83041	-25.55297	G46.11	M945	9.02	0.92	8.33	12.68	4993	185	345	1420	340	42	37.68	20.32	27.62
27.83035	-25.55301	G46.12	M898	8.87	0.89	9.73	14.52	5102	203	307	1496	360	40	39.66	20.34	25.34
27.83037	-25.55300	G46.13	M916	8.79	0.96	9.25	15.00	4968	254	396	1436	1400	40	41.5	18.5	28.32
27.83039	-25.55299	G46.14	M892	8.84	1.00	9.77	14.52	5507	283	325	1694	400	42	34.76	23.24	30.12
27.83042	-25.55299	G46.15	M942	8.74	0.98	7.60	12.13	5806	213	339	1642	380	44	36.5	19.5	26.75
27.83012	-25.55337	G60.1	M1046	7.64	1.35	5.21	25.81	2903	125	81	610	1800	40	40.86	19.14	23.08
27.83014	-25.55336	G60.2	M993	7.61	1.38	5.64	27.29	2209	137	71	544	1600	40	38.56	21.44	21.99
27.83017	-25.55336	G60.3	M881	7.68	1.20	8.22	49.60	2095	123	73	581	1600	40	42.76	17.24	23.60
27.83011	-25.55340	G60.4	M1017	7.62	1.21	10.35	18.74	1881	94	66	467	1600	46	33.68	20.32	25.82
27.83013	-25.55339	G60.5	M1004	7.49	1.23	8.72	21.23	2483	139	84	604	1400	40	41.84	18.16	20.50
27.83015	-25.55339	G60.6	M966	7.56	1.38	9.59	26.21	2167	169	81	557	1600	40	41.24	18.76	22.49
27.83018	-25.55338	G60.7	M975	7.64	1.21	8.72	25.02	2995	131	68	546	1600	42	39.36	18.64	22.08
27.83012	-25.55342	G60.8	M967	7.69	1.21	10.47	28.38	1977	159	69	547	1400	44	35.4	20.6	23.77
27.83014	-25.55342	G60.9	M910	7.67	1.25	9.36	22.96	3084	150	77	587	460	44	37.96	18.04	22.80
27.83016	-25.55341	G60.10	M984	7.6	1.27	12.32	24.04	3087	186	74	547	1600	40	43.1	16.9	22.58
27.83019	-25.55341	G60.11	M889	7.68	1.19	12.11	25.67	2119	198	72	567	1600	42	36.68	21.32	21.07
27.83013	-25.55345	G60.12	M930	7.64	1.27	14.83	26.97	3233	160	70	588	1600	46	35.6	18.4	23.36
27.83015	-25.55344	G60.13	M990	7.67	1.26	12.90	27.08	3177	134	75	523	1600	40	41.36	18.64	21.94
27.83017	-25.55343	G60.14	M1032	7.62	1.29	8.35	24.91	2469	168	83	563	1600	42	40.28	17.72	21.00
27.83020	-25.55343	G60.15	M974	7.84	1.14	8.52	26.75	3096	132	63	545	1600	40	41.98	18.02	22.28

APPENDIX B Lucerne yield data

MNr.	Yield - June 2001		Yield - August 2001		Yield - September 2001		Yield - October 2001		Yield - November 2001		Yield - February 2002	
	g/sample	t/ha	g/sample	t/ha	g/sample	t/ha	g/sample	t/ha	g/sample	t/ha	g/sample	t/ha
G1	154.28	4.29	268.5	7.46	421.64	11.71	442	12.28	512.08	14.22	350.51	9.74
G2	201.24	5.59	225.5	6.26	404.82	11.25	316	8.78	233.23	6.48	508.26	14.12
G3	211.04	5.86	264.4	7.34	319.20	8.87	343	9.53	201.18	5.59	133.88	3.72
G4	121.79	3.38	175.3	4.87	253.00	7.03	339	9.42	169.73	4.71	148.46	4.12
G5	129.34	3.59	262.6	7.29	294.20	8.17	326	9.06	232.96	6.47	304.35	8.45
G6	302.54	8.40	525.1	14.59	606.90	16.86	485	13.47	340.93	9.47	434.52	12.07
G7	204.81	5.69	364.6	10.13	458.24	12.73	377	10.47	247.59	6.88	409.32	11.37
G8	57.28	1.59	174.0	4.83	118.90	3.30	122	3.39	264.05	7.33	513.74	14.27
G9	140.11	3.89	378.2	10.51	380.31	10.56	280	7.78	410.24	11.40	282.76	7.85
G10	321.69	8.94	515.3	14.31	582.72	16.19	648	18.00	549.38	15.26	464.18	12.89
G11	139.62	3.88	306.1	8.50	310.60	8.63	352	9.78	353.67	9.82	355.68	9.88
G12	100.97	2.80	284.5	7.90	200.80	5.58	221	6.14	232.69	6.46	221.50	6.15
G13	250.02	6.95	441.1	12.25	423.20	11.76	443	12.31	326.10	9.06	347.23	9.65
G14	202.51	5.63	306.3	8.51	356.90	9.91	457	12.69	357.53	9.93	435.48	12.10
G15	136.41	3.79	296.0	8.22	287.40	7.98	308	8.56	247.31	6.87	169.30	4.70
G16	129.85	3.61	223.8	6.22	449.30	12.48	444	12.33	293.36	8.15	504.96	14.03
G17	123.37	3.43	255.3	7.09	257.00	7.14	318	8.83	218.67	6.07	117.93	3.28
G18	329.62	9.16	412.7	11.46	572.33	15.90	407	11.31	356.13	9.89	380.18	10.56
G19	308.26	8.56	344.1	9.56	485.94	13.50	374	10.39	333.40	9.26	318.05	8.83
G20	114.41	3.18	191.4	5.32	296.82	8.25	214	5.94	163.71	4.55	215.50	5.99
G21	194.67	5.41	250.0	6.94	335.50	9.32	384	10.67	323.19	8.98	154.93	4.30
G22	217.93	6.05	263.2	7.31	392.36	10.90	392	10.89	316.39	8.79	379.95	10.55
G23	272.39	7.57	354.8	9.86	510.68	14.19	366	10.17	363.45	10.10	394.62	10.96
G24	67.18	1.87	268.0	7.44	232.14	6.45	250	6.94	234.10	6.50	104.55	2.90
G25	110.69	3.07	342.7	9.52	325.00	9.03	264	7.33	266.32	7.40	117.80	3.27
G26	274.63	7.63	395.0	10.97	619.00	17.19	261	7.25	231.94	6.44	401.58	11.16
G27	127.80	3.55	368.7	10.24	343.00	9.53	309	8.58	281.92	7.83	212.96	5.92
G28	146.25	4.06	275.7	7.66	203.00	5.64	223	6.19	225.69	6.27	210.87	5.86
G29	150.65	4.18	325.8	9.05	231.00	6.42	343	9.53	268.75	7.47	161.04	4.47
G30	188.04	5.22	301.9	8.39	424.00	11.78	331	9.19	219.68	6.10	386.16	10.73

G31	135.63	3.77	326.2	9.06	443.24	12.31	283	7.86	235.58	6.54	186.51	5.18
G32	131.02	3.64	229.8	6.38	375.57	10.43	221	6.14	300.70	8.35	378.02	10.50
G33	227.23	6.31	338.9	9.41	431.00	11.97	568	15.78	401.78	11.16	290.01	8.06
G34	311.11	8.64	563.7	15.66	752.00	20.89	551	15.31	412.42	11.46	261.28	7.26
G35	172.76	4.80	363.5	10.10	280.54	7.79	318	8.83	184.43	5.12	270.55	7.52
G36	127.82	3.55	376.8	10.47	297.18	8.26	293	8.14	221.83	6.16	260.80	7.24
G37	134.96	3.75	323.1	8.98	255.00	7.08	260	7.22	217.73	6.05	176.06	4.89
G38	164.62	4.57	328.1	9.11	426.72	11.85	480	13.33	268.20	7.45	248.03	6.89
G39	164.87	4.58	343.1	9.53	559.28	15.54	393	10.92	240.65	6.68	231.81	6.44
G40	73.52	2.04	178.9	4.97	170.75	4.74	175	4.86	116.00	3.22	238.93	6.64
G41	195.33	5.43	366.2	10.17	427.00	11.86	401	11.14	342.48	9.51	372.81	10.36
G42	375.95	10.44	483.7	13.44	506.00	14.06	424	11.78	382.10	10.61	548.70	15.24
G43	214.77	5.97	346.3	9.62	517.00	14.36	295	8.19	267.78	7.44	360.91	10.03
G44	176.31	4.90	291.2	8.09	303.00	8.42	265	7.36	223.80	6.22	305.18	8.48
G45	187.53	5.21	301.0	8.36	316.00	8.78	314	8.72	313.38	8.71	230.35	6.40
G46	220.52	6.13	306.6	8.52	254.00	7.06	346	9.61	295.09	8.20	323.01	8.97
G47	61.53	1.71	108.1	3.00	143.00	3.97	210	5.83	98.33	2.73	245.71	6.83
G48	125.28	3.48	227.5	6.32	232.00	6.44	190	5.28	184.34	5.12	305.83	8.50
G49	238.06	6.61	471.2	13.09	660.00	18.33	381	10.58	194.63	5.41	512.40	14.23
G50	279.37	7.76	429.9	11.94	753.00	20.92	608	16.89	309.32	8.59	504.16	14.00
G51	312.86	8.69	378.4	10.51	705.00	19.58	508	14.11	389.61	10.82	593.90	16.50
G52	215.29	5.98	334.8	9.30	618.00	17.17	414	11.50	352.96	9.80	566.88	15.75
G53	208.95	5.80	224.7	6.24	321.00	8.92	295	8.19	261.93	7.28	145.79	4.05
G54	185.16	5.14	294.4	8.18	506.00	14.06	330	9.17	279.15	7.75	204.78	5.69
G55	153.29	4.26	253.6	7.04	400.00	11.11	272	7.56	198.87	5.52	438.20	12.17
G56	141.95	3.94	231.3	6.43	282.00	7.83	176	4.89	91.37	2.54	478.50	13.29
G57	338.67	9.41	498.7	13.85	555.00	15.42	447	12.42	309.39	8.59	490.18	13.62
G58	289.92	8.05	595.8	16.55	665.00	18.47	427	11.86	296.30	8.23	442.58	12.29
G59	356.29	9.90	529.6	14.71	619.00	17.19	431	11.97	314.39	8.73	445.94	12.39
G60	355.69	9.88	523.7	14.55	593.00	16.47	351	9.75	362.71	10.08	391.96	10.89
G61	299.69	8.32	463.0	12.86	702.00	19.50	502	13.94	272.39	7.57	565.34	15.70
G62	323.90	9.00	655.9	18.22	692.00	19.22	374	10.39	295.19	8.20	103.52	2.88
G63	256.49	7.12	345.5	9.60	451.00	12.53	245	6.81	194.83	5.41	186.44	5.18
G64	184.80	5.13	429.4	11.93	330.00	9.17	180	5.00	91.80	2.55	184.84	5.13

G65	237.44	6.60	437.2	12.14	476.00	13.22	321	8.92	106.06	2.95	596.50	16.57
G66	183.56	5.10	335.0	9.31	493.00	13.69	421	11.69	267.25	7.42	395.71	10.99
G67	273.29	7.59	348.7	9.69	408.00	11.33	396	11.00	197.57	5.49	318.25	8.84
G68	220.42	6.12	416.0	11.56	411.00	11.42	457	12.69	196.42	5.46	417.66	11.60
G69	351.29	9.76	419.3	11.65	402.00	11.17	451	12.53	339.70	9.44	510.62	14.18
G70	240.29	6.67	341.0	9.47	358.00	9.94	292	8.11	224.26	6.23	458.30	12.73
G71	262.22	7.28	412.6	11.46	479.00	13.31	436	12.11	255.12	7.09	415.78	11.55
G72	209.22	5.81	233.4	6.48	163.00	4.53	255	7.08	216.87	6.02	186.99	5.19
G7.1	166.57	4.63	282.2	7.84	356.00	9.89	390	10.83	321.64	8.93	237.82	6.61
G7.2	82.60	2.29	142.5	3.96	217.00	6.03	217	6.03	134.58	3.74	163.07	4.53
G7.3	98.83	2.75	245.3	6.81	251.00	6.97	276	7.67	168.03	4.67	216.40	6.01
G7.4	145.92	4.05	208.5	5.79	360.00	10.00	356	9.89	325.34	9.04	167.46	4.65
G7.5	141.70	3.94	226.3	6.29	375.00	10.42	460	12.78	388.84	10.80	299.21	8.31
G7.6	125.73	3.49	212.0	5.89	258.00	7.17	252	7.00	204.19	5.67	190.61	5.29
G7.7	129.58	3.60	164.6	4.57	285.00	7.92	308	8.56	223.41	6.21	172.23	4.78
G7.8	118.01	3.28	187.5	5.21	170.00	4.72	253	7.03	146.36	4.07	74.67	2.07
G7.9	150.12	4.17	218.6	6.07	352.00	9.78	394	10.94	296.74	8.24	123.51	3.43
G7.10	132.56	3.68	239.5	6.65	202.00	5.61	323	8.97	255.67	7.10	122.24	3.40
G7.11	123.29	3.42	422.8	11.74	279.00	7.75	298	8.28	212.39	5.90	246.20	6.84
G7.12	76.10	2.11	230.7	6.41	190.00	5.28	229	6.36	173.52	4.82	90.46	2.51
G7.13	168.44	4.68	297.9	8.28	362.00	10.06	404	11.22	334.55	9.29	181.81	5.05
G7.14	102.54	2.85	213.3	5.93	163.00	4.53	284	7.89	196.62	5.46	175.41	4.87
G7.15	95.60	2.66	259.0	7.19	239.00	6.64	294	8.17	195.11	5.42	333.18	9.26
G10.1	237.51	6.60	482.1	13.39	540.00	15.00	536	14.89	464.64	12.91	424.78	11.80
G10.2	277.92	7.72	391.9	10.89	561.00	15.58	490	13.61	369.66	10.27	343.34	9.54
G10.3	284.37	7.90	481.3	13.37	733.00	20.36	585	16.25	499.68	13.88	417.70	11.60
G10.4	209.88	5.83	323.1	8.98	395.00	10.97	569	15.81	402.00	11.17	609.90	16.94
G10.5	160.43	4.46	243.8	6.77	486.00	13.50	464	12.89	351.14	9.75	536.04	14.89
G10.6	190.68	5.30	279.3	7.76	546.00	15.17	562	15.61	410.64	11.41	512.06	14.22
G10.7	226.11	6.28	386.4	10.73	706.00	19.61	546	15.17	501.56	13.93	442.82	12.30
G10.8	310.31	8.62	500.4	13.90	762.00	21.17	446	12.39	575.64	15.99	441.74	12.27
G10.9	236.26	6.56	309.1	8.59	707.00	19.64	440	12.22	510.88	14.19	549.84	15.27
G10.10	285.68	7.94	537.8	14.94	721.00	20.03	551	15.31	474.40	13.18	406.62	11.30
G10.11	225.08	6.25	385.0	10.69	652.00	18.11	436	12.11	384.66	10.69	603.80	16.77

G10.12	295.20	8.20	362.7	10.08	722.00	20.06	598	16.61	553.08	15.36	446.04	12.39
G10.13	283.04	7.86	310.4	8.62	548.00	15.22	400	11.11	789.02	21.92	464.30	12.90
G10.14	269.27	7.48	357.8	9.94	646.00	17.94	592	16.44	548.98	15.25	476.46	13.24
G10.15	227.18	6.31	320.3	8.90	807.00	22.42	428	11.89	451.46	12.54	423.88	11.77
G21.1	190.67	5.30	303.5	8.43	434.00	12.06	470	13.06	339.49	9.43	293.56	8.15
G21.2	222.53	6.18	263.9	7.33	261.00	7.25	448	12.44	300.96	8.36	274.49	7.62
G21.3	169.85	4.72	188.9	5.25	161.00	4.47	313	8.69	243.83	6.77	165.66	4.60
G21.4	183.36	5.09	274.2	7.62	453.00	12.58	600	16.67	267.17	7.42	331.27	9.20
G21.5	189.77	5.27	308.2	8.56	321.00	8.92	444	12.33	263.57	7.32	294.75	8.19
G21.6	185.87	5.16	280.6	7.79	249.00	6.92	394	10.94	325.93	9.05	342.89	9.52
G21.7	127.68	3.55	402.1	11.17	250.00	6.94	370	10.28	370.44	10.29	273.18	7.59
G21.8	179.84	5.00	313.2	8.70	286.00	7.94	285	7.92	284.61	7.91	313.09	8.70
G21.9	158.83	4.41	417.3	11.59	272.00	7.56	295	8.19	321.16	8.92	239.88	6.66
G21.10	190.49	5.29	388.6	10.79	433.00	12.03	518	14.39	409.96	11.39	471.36	13.09
G21.11	210.46	5.85	338.5	9.40	434.00	12.06	457	12.69	360.08	10.00	258.37	7.18
G21.12	201.26	5.59	320.9	8.91	242.00	6.72	176	4.89	277.48	7.71	319.36	8.87
G21.13	227.52	6.32	371.6	10.32	348.00	9.67	302	8.39	412.00	11.44	261.06	7.25
G21.14	250.46	6.96	338.0	9.39	376.00	10.44	345	9.58	350.17	9.73	414.46	11.51
G21.15	186.20	5.17	276.3	7.68	306.00	8.50	319	8.86	321.60	8.93	306.89	8.52
G33.1	242.90	6.75	288.1	8.00	453.00	12.58	460	12.78	309.70	8.60	304.06	8.45
G33.2	229.96	6.39	340.8	9.47	404.00	11.22	512	14.22	305.51	8.49	219.10	6.09
G33.3	213.18	5.92	291.2	8.09	425.00	11.81	263	7.31	269.30	7.48	336.39	9.34
G33.4	212.39	5.90	422.9	11.75	384.00	10.67	478	13.28	359.00	9.97	376.53	10.46
G33.5	183.19	5.09	301.9	8.39	397.00	11.03	420	11.67	403.72	11.21	381.30	10.59
G33.6	197.49	5.49	404.1	11.23	388.00	10.78	431	11.97	378.50	10.51	364.55	10.13
G33.7	152.44	4.23	355.1	9.86	222.00	6.17	331	9.19	286.57	7.96	306.01	8.50
G33.8	204.53	5.68	376.5	10.46	415.00	11.53	406	11.28	286.85	7.97	424.50	11.79
G33.9	258.31	7.18	313.9	8.72	315.00	8.75	446	12.39	401.50	11.15	360.07	10.00
G33.10	264.08	7.34	443.2	12.31	493.00	13.69	504	14.00	470.38	13.07	264.60	7.35
G33.11	244.63	6.80	356.1	9.89	379.00	10.53	390	10.83	395.15	10.98	362.77	10.08
G33.12	296.25	8.23	389.7	10.83	513.00	14.25	433	12.03	365.92	10.16	384.97	10.69
G33.13	257.23	7.15	354.5	9.85	318.00	8.83	418	11.61	335.16	9.31	375.50	10.43
G33.14	275.34	7.65	390.7	10.85	402.00	11.17	421	11.69	354.06	9.84	357.80	9.94
G33.15	199.13	5.53	276.9	7.69	243.00	6.75	319	8.86	401.36	11.15	351.04	9.75

G46.1	226.74	6.30	344.5	9.57	301.00	8.36	194	5.39	221.34	6.15	489.76	13.60
G46.2	133.95	3.72	291.1	8.09	358.00	9.94	241	6.69	286.80	7.97	390.14	10.84
G46.3	149.97	4.17	319.3	8.87	262.00	7.28	231	6.42	267.83	7.44	446.44	12.40
G46.4	162.88	4.52	360.5	10.01			403	11.19	330.14	9.17	454.06	12.61
G46.5	167.77	4.66	300.5	8.35	482.00	13.39	321	8.92	269.26	7.48	415.48	11.54
G46.6	201.45	5.60	300.0	8.33	320.00	8.89	375	10.42	340.63	9.46	345.82	9.61
G46.7	115.78	3.22	263.4	7.32	269.00	7.47	221	6.14	219.58	6.10	349.88	9.72
G46.8	162.96	4.53	350.6	9.74			360	10.00	354.22	9.84	451.60	12.54
G46.9	154.31	4.29	330.9	9.19	540.00	15.00	413	11.47	329.01	9.14	385.60	10.71
G46.10	157.69	4.38	382.4	10.62	435.00	12.08	383	10.64	299.65	8.32	456.90	12.69
G46.11	137.53	3.82	265.1	7.36			248	6.89	234.52	6.51	477.02	13.25
G46.12	150.66	4.19	334.1	9.28			297	8.25			451.14	12.53
G46.13	150.10	4.17	309.3	8.59			298	8.28	305.69	8.49	423.44	11.76
G46.14	177.91	4.94	399.7	11.10			359	9.97	270.40	7.51	334.09	9.28
G46.15	139.30	3.87	338.3	9.40			323	8.97	247.27	6.87	305.99	8.50
G60.1	333.77	9.27	425.8	11.83	676.00	18.78	398	11.06	384.82	10.69	483.02	13.42
G60.2	346.70	9.63	554.1	15.39	677.00	18.81	522	14.50	468.70	13.02	396.44	11.01
G60.3	313.30	8.70	502.1	13.95	653.00	18.14	419	11.64	420.48	11.68	484.54	13.46
G60.4	168.08	4.67	323.6	8.99	643.00	17.86	328	9.11	303.45	8.43	310.74	8.63
G60.5	351.10	9.75	501.6	13.93	648.00	18.00	391	10.86	471.00	13.08	443.62	12.32
G60.6	323.88	9.00	416.1	11.56	560.00	15.56	412	11.44	459.12	12.75	529.20	14.70
G60.7	315.15	8.75	411.2	11.42	645.00	17.92	407	11.31	475.30	13.20	527.22	14.65
G60.8	291.76	8.10	496.0	13.78			459	12.75	445.82	12.38	479.06	13.31
G60.9	385.80	10.72	507.2	14.09			496	13.78	449.62	12.49	351.73	9.77
G60.10	254.18	7.06	403.0	11.19			406	11.28	352.21	9.78	380.56	10.57
G60.11	312.35	8.68	618.9	17.19			501	13.92	519.40	14.43	468.30	13.01
G60.12	162.43	4.51	474.2	13.17			353	9.81	377.93	10.50	343.31	9.54
G60.13	266.04	7.39	482.9	13.41			304	8.44	226.15	6.28	457.80	12.72
G60.14	185.17	5.14	350.8	9.74			381	10.58	259.78	7.22	498.08	13.84
G60.15	174.80	4.86	243.3	6.76			365	10.14	563.00	15.64	417.64	11.60

APPENDIX C Plant analysis data

MNr.	June 2001				February 2002			
	%Ca	%Mg	%P	%K	%Ca	%K	%Mg	%P
G1	1.22	0.24	0.38	3.44	1.43	2.56	0.27	0.34
G2	1.57	0.28	0.36	2.54	1.73	1.73	0.29	0.15
G3	1.07	0.26	0.23	2.22	1.34	1.73	0.49	0.26
G4	1.34	0.47	0.28	1.30	1.12	1.34	0.48	0.14
G5	1.40	0.41	0.34	1.65	1.20	0.62	0.61	0.23
G6	1.28	0.32	0.30	2.45	1.43	1.06	0.44	0.13
G7	1.35	0.34	0.34	2.37	1.43	1.47	0.55	0.29
G8	1.19	0.20	0.35	3.49	1.29	2.25	0.28	0.12
G9	1.37	0.38	0.31	2.04	1.12	1.51	0.32	0.22
G10	1.63	0.31	0.35	2.81	1.38	1.42	0.31	0.20
G11	1.38	0.37	0.31	1.95	1.57	1.47	0.41	0.15
G12	1.41	0.41	0.31	1.54	1.18	0.89	0.52	0.24
G13	1.53	0.44	0.36	1.46	1.55	1.22	0.56	0.21
G14	1.50	0.27	0.36	2.03	1.41	1.33	0.38	0.27
G15	1.25	0.29	0.32	2.42	0.90	1.35	0.35	0.25
G16	1.23	0.23	0.33	3.23	1.24	2.09	0.36	0.28
G17	1.34	0.35	0.28	2.14	1.38	2.20	0.58	0.36
G18	1.65	0.33	0.34	2.39	1.72	1.99	0.37	0.13
G19	1.51	0.33	0.35	2.48	1.85	1.73	0.58	0.35
G20	1.32	0.40	0.30	1.93	1.36	1.79	0.51	0.36
G21	1.30	0.42	0.34	1.56	1.50	1.21	0.56	0.30
G22	1.52	0.40	0.37	1.66	1.62	1.41	0.57	0.33
G23	1.19	0.34	0.22	1.80	1.93	1.54	0.48	0.35
G24	1.01	0.23	0.28	2.30	1.08	2.96	0.36	0.31
G25	1.10	0.34	0.29	2.18	1.47	2.29	0.55	0.37
G26	1.75	0.40	0.27	2.35	1.67	1.13	0.46	0.17
G27		0.32	0.22	2.69	1.08	2.04	0.47	0.36
G28	1.28	0.40	0.31	1.93	1.23	1.45	0.53	0.24
G29	1.23	0.42	0.32	1.61	1.29	1.00	0.65	0.22
G30	1.31	0.35	0.30	2.43	2.40	2.48	0.80	0.48
G31	1.10	0.31	0.32	2.14	1.20	1.96	0.49	0.32
G32	1.32	0.43	0.33	1.51	1.37	1.52	0.63	0.32
G33	1.29	0.41	0.20	2.45	1.76	2.16	0.47	0.31
G34	1.25	0.31	0.24	2.01	1.24	2.20	0.44	0.32
G35	1.24	0.35	0.28	2.28	1.60	2.45	0.53	0.41
G36	1.16	0.40	0.31	1.87	1.24	1.87	0.59	0.43
G37	1.32	0.41	0.32	2.04	1.28	1.70	0.48	0.16
G38	1.28	0.31	0.28	1.99	1.34	1.43	0.44	0.19
G39	1.20	0.25	0.30	2.45	1.14	2.27	0.45	0.36
G40	1.19	0.45	0.26	2.24	1.24	1.81	0.50	0.22
G41	1.20	0.32	0.31	2.76	1.38	1.58	0.35	0.15
G42	1.25	0.30	0.32	2.67	1.03	1.88	0.30	0.17

G43	1.20	0.26	0.29	2.84	1.62	2.71	0.50	0.52
G44	1.08	0.32	0.29	2.27	0.92	1.49	0.34	0.20
G45	1.04	0.31	0.30	2.43	1.80	2.43	0.52	0.29
G46	1.09	0.30	0.30	2.32	1.41	2.21	0.44	0.28
G47	0.92	0.25	0.29	2.71	0.86	1.91	0.34	0.20
G48	0.98	0.38	0.26	1.63	1.28	1.60	0.54	0.36
G49	1.47	0.32	0.30	2.25	1.38	2.32	0.40	0.35
G50	1.25	0.27	0.32	2.42	1.69	1.84	0.42	0.31
G51	1.31	0.32	0.34	2.44	1.67	2.24	0.47	0.36
G52	1.12	0.34	0.31	2.27	1.60	2.24	0.47	0.29
G53	1.04	0.30	0.29	2.33	1.62	2.50	0.52	0.40
G54	1.24	0.35	0.31	1.74	1.47	2.09	0.58	0.37
G55	0.96	0.24	0.18	2.09	1.06	1.93	0.34	0.16
G56	1.15	0.34	0.24	2.29	1.48	3.02	0.47	0.39
G57	1.23	0.26	0.30	2.34	1.60	1.91	0.35	0.20
G58	1.36	0.31	0.31	2.31	1.54	1.84	0.48	0.35
G59	1.37	0.25	0.34	2.06	1.50	1.90	0.38	0.30
G60	1.38	0.30	0.33	1.91	1.18	2.21	0.41	0.19
G61	1.21	0.27	0.30	1.98	1.22	1.06	0.37	0.21
G62	1.55	0.37	0.37	1.84	1.47	2.11	0.48	0.32
G63	1.30	0.37	0.34	2.26	1.41	2.52	0.51	0.36
G64	1.26	0.36	0.32	2.36	1.76	1.42	0.40	0.22
G65	1.37	0.26	0.36	2.51	1.77	1.96	0.37	0.29
G66	1.46	0.30	0.40	2.34	1.88	1.78	0.52	0.36
G67	1.33	0.27	0.39	2.43	1.75	1.85	0.47	0.33
G68	1.38	0.29	0.31	2.09	1.44	1.04	0.32	0.19
G69	1.36	0.26	0.28	2.38	1.60	1.60	0.43	0.36
G70	1.34	0.29	0.36	2.35	1.81	1.67	0.42	0.36
G71	1.53	0.28	0.29	2.53	1.64	1.87	0.42	0.39
G72	1.31	0.45	0.35	1.79	1.91	2.34	0.70	0.37
G7.1	1.29	0.31	0.38	2.54	1.11	2.14	0.42	0.34
G7.2	1.56	0.34	0.32	2.30	1.62	1.44	0.59	0.35
G7.3	1.46	0.33	0.35	2.54	1.22	2.12	0.52	0.38
G7.4	1.64	0.32	0.22	2.28	1.47	1.58	0.54	0.32
G7.5	1.72	0.34	0.29	2.21	1.28	1.80	0.48	0.36
G7.6	1.38	0.28	0.31	2.78	1.21	1.81	0.47	0.35
G7.7	1.40	0.31	0.31	2.54	1.37	2.21	0.49	0.37
G7.8	1.39	0.27	0.30	2.29	1.31	1.67	0.49	0.35
G7.9	1.32	0.25	0.30	2.61	1.52	1.81	0.43	0.29
G7.10	1.26	0.26	0.27	2.35	1.29	1.89	0.49	0.36
G7.11	1.39	0.28	0.33	2.35	1.19	2.01	0.31	0.16
G7.12	1.42	0.33	0.30	2.04	1.32	1.84	0.51	0.17
G7.13	1.31	0.30	0.31	2.23	1.41	1.65	0.40	0.28
G7.14	1.70	0.33	0.29	2.39	1.07	1.86	0.31	0.23
G7.15	1.52	0.27	0.24	1.96	1.34	1.91	0.28	0.20
G10.1	1.35	0.28	0.31	2.31	1.63	1.69	0.42	0.16
G10.2	1.61	0.29	0.36	2.06	1.51	1.73	0.45	0.36

G10.3	1.61	0.30	0.34	2.28	1.51	1.37	0.30	0.23
G10.4	1.50	0.29	0.32	2.79	1.73	1.91	0.40	0.35
G10.5	1.61	0.29	0.30	2.62	1.24	1.58	0.31	0.20
G10.6	1.59	0.27	0.31	2.86	1.51	1.80	0.27	0.19
G10.7	1.21	0.25	0.30	2.37	1.61	1.92	0.42	0.25
G10.8	1.11	0.31	0.26	1.94	1.33	1.55	0.30	0.16
G10.9	1.58	0.31	0.34	2.45	1.19	1.66	0.30	0.20
G10.10	1.62	0.32	0.33	2.38	1.53	2.19	0.38	0.32
G10.11	1.61	0.33	0.36	2.71	1.41	1.75	0.35	0.19
G10.12	1.55	0.30	0.28	2.82	1.13	1.60	0.28	0.14
G10.13	1.57	0.29	0.22	2.61	1.23	1.95	0.50	0.35
G10.14	1.79	0.34	0.37	2.38	1.61	2.13	0.46	0.37
G10.15	1.57	0.29	0.34	2.26	1.58	2.00	0.43	0.35
G21.1	1.39	0.39	0.29	1.55	1.43	1.17	0.59	0.29
G21.2	1.27	0.41	0.35	1.61	1.65	1.23	0.50	0.41
G21.3	1.27	0.37	0.30	1.49	1.47	1.59	0.57	0.34
G21.4	1.36	0.35	0.28	1.95	1.46	1.55	0.54	0.33
G21.5	1.38	0.38	0.35	2.13	1.64	2.07	0.63	0.37
G21.6	1.29	0.40	0.30	2.07	1.05	1.02	0.44	0.14
G21.7	1.33	0.39	0.20	1.87	1.52	1.70	0.58	0.39
G21.8	1.38	0.41	0.31	1.94	1.05	1.41	0.36	0.22
G21.9	1.39	0.40	0.33	1.94	1.64	1.32	0.58	0.36
G21.10	1.39	0.42	0.31	1.66	1.51	1.19	0.55	0.25
G21.11	1.19	0.40	0.32	1.74	1.32	1.28	0.48	0.24
G21.12	1.63	0.43	0.34	1.62	1.35	1.35	0.63	0.32
G21.13	1.23	0.40	0.34	1.40	1.47	1.41	0.66	0.39
G21.14	1.16	0.40	0.31	1.64	1.37	1.22	0.60	0.35
G21.15	1.22	0.43	0.32	1.67	1.32	1.16	0.61	0.35
G33.1	1.57	0.28	0.29	2.41	1.53	2.08	0.46	0.35
G33.2	1.56	0.30	0.33	2.50	1.36	2.27	0.39	0.31
G33.3	1.56	0.32	0.34	2.04	1.38	2.14	0.53	0.37
G33.4	1.47	0.28	0.33	2.70	1.49	1.71	0.37	0.26
G33.5	1.54	0.31	0.32	2.42	1.71	1.53	0.44	0.28
G33.6	1.49	0.28	0.33	2.47	0.97	1.16	0.25	0.19
G33.7	1.80	0.33	0.33	2.33	1.06	1.02	0.28	0.18
G33.8	1.58	0.33	0.32	2.75	1.56	2.13	0.46	0.33
G33.9	1.62	0.33	0.34	2.18	1.40	1.21	0.35	0.15
G33.10	1.68	0.36	0.36	2.40	1.59	1.27	0.35	0.15
G33.11	1.48	0.30	0.33	1.98	1.90	1.75	0.45	0.34
G33.12	1.48	0.32	0.31	2.07	1.34	1.69	0.30	0.22
G33.13	1.37	0.32	0.29	1.39	1.52	1.54	0.31	0.18
G33.14	1.54	0.30	0.32	1.92	1.60	1.86	0.40	0.19
G33.15	1.12	0.32	0.29	1.84	1.86	2.07	0.56	0.38
G46.1	1.14	0.29	0.23	2.38	1.24	2.19	0.35	0.49
G46.2	1.27	0.35	0.23	1.88	1.23	2.15	0.48	0.39
G46.3	1.09	0.32	0.28	2.29	1.04	1.70	0.33	0.19
G46.4	1.34	0.34	0.29	2.30	1.42	1.86	0.42	0.16

G46.5	1.27	0.32	0.29	3.00	1.52	1.44	0.56	0.20
G46.6	1.29	0.35	0.31	2.49	1.31	2.03	0.57	0.39
G46.7	1.18	0.33	0.30	2.49	1.14	1.69	0.37	0.16
G46.8	1.17	0.33	0.28	1.79	1.39	1.93	0.48	0.40
G46.9	1.25	0.32	0.24	2.55	1.33	2.37	0.43	0.15
G46.10	1.04	0.32	0.27	1.87	1.33	2.18	0.46	0.32
G46.11	1.10	0.30	0.27	1.95	1.88	1.87	0.42	0.36
G46.12	1.15	0.34	0.27	2.14	1.13	1.89	0.49	0.39
G46.13	1.06	0.29	0.28	2.66	1.50	2.49	0.48	0.40
G46.14	1.23	0.32	0.22	2.51	1.31	2.21	0.54	0.40
G46.15	1.21	0.34	0.31	2.45	1.37	1.83	0.52	0.39
G60.1	1.41	0.32	0.33	1.55	1.14	0.97	0.31	0.23
G60.2	1.43	0.28	0.28	2.08	1.80	1.60	0.47	0.28
G60.3	1.46	0.31	0.31	1.47	1.70	1.60	0.48	0.32
G60.4	1.57	0.31	0.35	2.19	1.69	1.35	0.41	0.14
G60.5	1.36	0.30	0.35	2.09	1.63	1.20	0.41	0.17
G60.6	1.45	0.26	0.33	2.53	1.56	1.61	0.38	0.30
G60.7	1.32	0.27	0.35	2.42	1.83	1.45	0.44	0.32
G60.8	1.34	0.25	0.32	2.17	1.86	1.28	0.51	0.35
G60.9	1.41	0.25	0.37	2.25	1.81	1.33	0.49	0.34
G60.10	1.32	0.23	0.28	2.55	1.48	1.43	0.34	0.31
G60.11	1.36	0.26	0.32	2.36	1.78	1.97	0.49	0.37
G60.12	1.32	0.28	0.35	1.86	1.75	1.54	0.42	0.32
G60.13	1.23	0.27	0.34	1.97	1.34	1.43	0.24	0.14
G60.14	1.54	0.28	0.36	2.54	1.09	1.30	0.27	0.14
G60.15	1.33	0.26	0.34	2.05	1.59	1.50	0.39	0.24

APPENDIX D Soil profile description

ARC • LNR

SOIL PROFILE DESCRIPTION

NATIONAL SOIL PROFILE NO : 14050

Map/photo : 2527DB Brits (4)

Latitude + Longitude: 25° 33' 9" / 27° 49' 49"

Land Type No :

Climate Zone :

Altitude : 1133 m

Terrain Unit: Footslope

Slope: 1 %

Slope Shape : Straight

Aspect : North

Microrelief : None

Parent Material Solum : Origin single, solid rock

Underlying Material : Basic intrusive rocks

Soil form and family : Shortlands pyramid

Surface rockiness :

Surface stoniness : None

Occurence of flooding : None

Wind erosion : None

Water Erosion : None

Vegetation / Land use : Agronomic cash crops

Water table : None

Described by : P. Steenekamp

Date Described : 4/2001

Weathering of underlying material: Advanced physical, strong chemical

Alteration of underlying material : Normal weathering

Horizon	Depth (mm)	Description	Diagnostic horizon
A1	0 - 250	Moist state; horizon disturbed; moist colour: dark reddish brown 2.5YR2.5/4; texture: clay; structure: moderate coarse subangular blocky; consistence: very hard, firm, sticky, plastic; many fine pores, medium cracks; common clay cutans; water absorption: 2 second(s); common roots; gradual smooth transition.	Orthic
B2	250 - 550	Moist state; horizon disturbed; moist colour: dark reddish brown 2.5YR2.5/4; texture: clay; structure: moderate coarse subangular blocky; consistence: very hard, firm, sticky, plastic; many fine pores, fine cracks; non-hardened free lime, slight effervescence; common clay cutans; water absorption: 1 second(s); common roots; clear smooth transition.	Red structured
B3	550 - 1100	Moist state; horizon undisturbed; moist colour: dark reddish brown 2.5YR3/4; texture: clay loam; common fine faint white lime mottles; common fine faint yellow, brown and red reduced iron oxide mottles; structure: moderate medium subangular blocky; consistence: very hard, firm, slightly sticky, slightly plastic; common fine bleached pores; non-hardened free lime, strong effervescence; common clay cutans; few fine <2-6mm lime concretions; water absorption: 1 second(s); few roots; clear smooth transition.	Saprolite
C	1100 - 1101+	Moist state; moist colour: strong brown 7.5YR5/6; structure: apedal massive; consistence: slightly hard, slightly firm, non-sticky, non-plastic; few fine pores; non-hardened free lime, slight effervescence; water absorption: 1 second(s); few roots.	Saprolite

Typic Rhodustults - USDA.

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SOIL PROFILE DESCRIPTION

NATIONAL SOIL PROFILE NO : 14049

Map/photo : 2527DB Brits (4)

Latitude + Longitude: 25° 33' 12" / 27° 49' 50"

Land Type No :

Climate Zone :

Altitude : 1136 m

Terrain Unit: Footslope

Slope: 1 %

Slope Shape : Straight

Aspect : North

Microrelief : None

Parent Material Solum : Origin single, solid rock

Underlying Material : Basic intrusive rocks

Soil form and family : Hutton stella

Surface rockiness : None

Surface stoniness : None

Occurence of flooding : None

Wind erosion : None

Water Erosion : None

Vegetation / Land use : Agronomic cash crops

Water table : None

Described by : P. Steenekamp

Date Described : 4/2001

Weathering of underlying material: Strong physical, strong chemical

Alteration of underlying material : Normal weathering

Horizon	Depth (mm)	Description	Diagnostic horizon
A1	0 - 300	Moist state; horizon disturbed; moist colour: dark reddish brown 2.5YR2.5/4; texture: clay; structure: weak coarse subangular blocky; consistence: very hard, firm, sticky, plastic; fine cracks; water absorption: 1 second(s); common roots; gradual transition.	Orthic
B1	300 - 1000	Moist state; horizon undisturbed; moist colour: dark reddish brown 2.5YR2.5/4; texture: clay; structure: apedal massive; consistence: very hard, firm, sticky, plastic; fine cracks; few clay cutans; water absorption: 1 second(s); common roots; gradual transition.	Red apedal
C1	1000 - 1200+	Moist state; horizon undisturbed; structure: apedal massive; consistence: hard, firm, slightly sticky, non-plastic; non-hardened free lime, slight effervescence; water absorption: 1 second(s); few roots.	Saprolite

Haplustepts - USDA.

APPENDIX E Photo gallery