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**APPENDIX B**

**SOIL, VEGETATION, AND PHYTOTOXICITY TEST DATA**

**Table B-1**  
**Vegetation Species and Cover**

sitename	species	cover.pct	sitename	species	cover.pct	sitename	species	cover.pct
CC01	Achillea (H)	1.6	LC01	Cornus (S)	0.8	LC13	Scirpus (H)	39.4
CC01	Agrostis (H)	4.7	LC02	Carex (H)	78	LC13	Scutellaria (H)	4.3
CC01	Chrysanthemum (H)	1.5	LC02	Sparganium (H)	4	LC13	Sparganium (H)	0.5
CC01	Festuca (H)	6.3	LC03	Phalaris (H)	44.5	LC13	Spiraea (S)	15.3
CC01	Moss (H)	1.4	LC05	Phalaris (H)	70.5	LC14	Agropyron (H)	0.2
CC01	Phleum (H)	0.8	LC05	Spiraea (S)	14	LC14	Agrostis (H)	0.6
CC01	Plantago (H)	0.6	LC06	Carex (H)	0.5	LC14	Phalaris (H)	62.5
CC01	Poa (H)	5.4	LC06	Phalaris (H)	4	LC14	Poa (H)	2.9
CC01	Trifolium (H)	1.3	LC06	Scirpus (H)	33	LC15	Agrostis (H)	0.1
CC01	Dactylis (S)	53	LC06	Sparganium (H)	1.5	LC15	Eleocharis (H)	9
CC01	Phalaris (S)	8	LC06	Potentilla (S)	50.5	LC15	Equisetum (H)	1.9
CC02	Achillea (H)	1	LC06	Spiraea (S)	4	LC15	Moss (H)	23
CC02	Agropyron (H)	0.5	LC07	Algae (H)	25	LC15	Phalaris (H)	17.2
CC02	Agrostis (H)	21.8	LC07	Bidens (H)	1.1	LC15	Scirpus (H)	8.3
CC02	Carex (H)	0.5	LC07	Calamagrostis (H)	8	LC16	Phalaris (H)	36.4
CC02	Lichen (H)	0.5	LC07	Carex (H)	2	LC16	Scirpus (H)	3
CC02	Moss (H)	15.8	LC07	Eleocharis (H)	28.8	LC17	Calamagrostis (H)	3.3
CC02	Phleum (H)	0.7	LC07	Epilobium (H)	0.1	LC17	Carex (H)	0.1
CC02	Plantago (H)	16.4	LC07	Equisetum (H)	2.6	LC17	Equisetum (H)	0.1
CC02	Poa (H)	0.4	LC07	Erigeron (H)	0.2	LC17	Galium (H)	2
CC02	Rumex (H)	0.3	LC07	Glyceria (H)	1.9	LC17	Lythrum (H)	0.4
CC02	Solidago (H)	0.5	LC07	Juncus (H)	0.9	LC17	Moss (H)	5
CC02	Trifolium (H)	1.2	LC07	Leersia (H)	8	LC17	Phalaris (H)	9.6
CC02	Alnus (S)	3.5	LC07	Lemna (H)	0.4	LC17	Polygonum (H)	2
CC02	Dactylis (S)	5.7	LC07	Lycopus (H)	7.5	LC17	Populus (T)	53
CC02	Tanacetum (S)	24.2	LC07	Moss (H)	1	LC18	Carex (H)	4.7
CC03	Achillea (H)	0.8	LC07	Potamogeton (H)	0.1	LC18	Eleocharis (H)	1.4
CC03	Agrostis (H)	3	LC07	Potentilla (H)	6.8	LC18	Glyceria (H)	0.5
CC03	Anaphalis (H)	0.5	LC07	Sagittaria (H)	3.2	LC18	Lemna (H)	0.1
CC03	Carex (H)	0.5	LC07	Spirodela (H)	7.8	LC18	Moss (H)	7.5
CC03	Chrysanthemum (H)	3.2	LC07	Utricularia (H)	0.8	LC18	Sagittaria (H)	11.9
CC03	Elymus (H)	20.5	LC07	Zizia (H)	3	LC18	Scirpus (H)	52.5
CC03	Epilobium (H)	5.5	LC07	Crataegus (S)	3	LC18	Utricularia (H)	0.1
CC03	Festuca (H)	9	LC08	Glyceria (H)	17.7	LC20	Carex (H)	0.1
CC03	Galium (H)	1	LC08	Sparganium (H)	17	LC20	Phalaris (H)	5.7
CC03	Mertensia (H)	3.1	LC09	Agrostis (H)	64.5	LC20	Pteridium (H)	61.5
CC03	Moss (H)	17.5	LC09	Lichen (H)	9.7	LC20	Amelanchier (S)	2.6
CC03	Ribes (H)	1.5	LC09	Moss (H)	2.1	LC20	Spiraea (S)	63.5
CC03	Stellaria (H)	2.8	LC09	Poa (H)	11	LC20	Symphoricarpos (S)	2
CC03	Abies (S)	4	LC10	Agrostis (H)	53	LC21	Eleocharis (H)	5.5
CC03	Acer (S)	10	LC10	Carex (H)	7.5	LC21	Juncus (H)	50.5
CC03	Epilobium (S)	7	LC10	Equisetum (H)	4.4	LC21	Poa (H)	2.6
CC03	Heracleum (S)	12	LC10	Moss (H)	10	LC21	Scirpus (H)	2.2
CC03	Lonicera (S)	2	LC10	Phalaris (H)	4.5	LC21	Sparganium (H)	0.1
CC03	Populus (S)	4	LC11	Cinna (H)	35	LC21	Alnus (S)	0.9
CC03	Rubus (S)	1	LC11	Heracleum (H)	3	LC21	Salix (S)	13.8
CC03	Salix (S)	41	LC11	Cornus (S)	46	LC22	Lemna (H)	1
CC03	Solidago (S)	2.1	LC11	Crataegus (S)	24	LC22	Lycopus (H)	0.2
CC04	Agrostis (H)	24	LC11	Physocarpus (S)	6	LC22	Lysimachia (H)	1.2
CC04	Moss (H)	7	LC12	Epilobium (H)	0.5	LC22	Moss (H)	0.5
CC06	Moss (H)	6.3	LC12	Potentilla (H)	80.5	LC22	Phalaris (H)	68
LC01	Bidens (H)	7.8	LC12	Sagittaria (H)	2.4	LC22	Alnus (S)	10
LC01	Callitriche (H)	0.2	LC12	Sparganium (H)	1.7	LC22	Cornus (S)	3.7
LC01	Lycopus (H)	0.1	LC13	Bidens (H)	0.3	LC22	Spiraea (S)	45.5
LC01	Myosotis (H)	40.7	LC13	Epilobium (H)	7.2	LC23	Agrostis (H)	52.5
LC01	Puccinellia (H)	1.4	LC13	Galium (H)	0.1	LC23	Aster (H)	0.5
LC01	Scutellaria (H)	0.2	LC13	Lycopus (H)	0.6	LC23	Carex (H)	6.7
LC01	Solanum (H)	1.3	LC13	Potentilla (H)	26	LC23	Cirsium (H)	0.6
LC01	Sparganium (H)	13.2	LC13	Sagittaria (H)	0.1	LC23	Epilobium (H)	1.6
LC23	Euphorbia (H)	0.6	LC32	Moss (H)	2	LC42	Agrostis (H)	34
LC23	Geum (H)	0.1	LC32	Scirpus (H)	4.5	LC42	Phleum (H)	0.1
LC23	Hieraceum (H)	8.5	LC32	Salix (S)	2.6	LC43	Carex (H)	6.3

**Table B-1  
Vegetation Species and Cover**

sitename	species	cover.pct	sitename	species	cover.pct	sitename	species	cover.pct
LC23	Moss (H)	17.5	LC32	Spiraea (S)	49	LC43	Drosera (H)	0.1
LC23	Phleum (H)	8.2	LC33	Agropyron (H)	1.3	LC43	Galium (H)	0.4
LC23	Poa (H)	21.7	LC33	Agrostis (H)	4.5			
LC24	Carex (H)	1	LC33	Carex (H)	22.2			
LC24	Phalaris (H)	14	LC33	Deschampsia (H)	7.7			
LC24	Scirpus (H)	83.5	LC33	Equisetum (H)	0.2			
LC25	Agrostis (H)	12.2	LC33	Grass (H)	0.1			
LC25	Moss (H)	25.5	LC33	Phalaris (H)	4.5			
LC26	Lemna (H)	0.5	LC33	Poa (H)	0.1			
LC26	Moss (H)	3	LC33	Spiraea (H)	35.5			
LC26	Phalaris (H)	48	LC33	Crataegus (S)	18			
LC26	Sparganium (H)	0.8	LC33	Rosa (S)	1.7			
LC26	Spirodela (H)	0.2	LC33	Symphoricarpos (S)	0.2			
LC26	Alnus (S)	10.5	LC34	Carex (H)	3			
LC26	Spiraea (S)	33.5	LC34	Deschampsia (H)	6.5			
LC27	Carex (H)	42	LC34	Eleocharis (H)	4			
LC27	Potentilla (H)	52.7	LC34	Lycopus (H)	0.3			
LC28	Agrostis (H)	50.5	LC34	Phalaris (H)	15.1			
LC28	Populus (T)	31.5	LC34	Sagitaria (H)	0.3			
LC29	Agrostis (H)	0.9	LC34	Scirpus (H)	10.5			
LC29	Alopecurus (H)	0.2	LC34	Sparganium (H)	1.3			
LC29	Carex (H)	16.4	LC34	Spiraea (S)	26			
LC29	Epilobium (H)	1.1	LC35	Agrostis (H)	11.4			
LC29	Festuca (H)	0.2	LC35	Deschampsia (H)	0.9			
LC29	Glyceria (H)	3.8	LC35	Equisetum (H)	0.1			
LC29	Poa (H)	0.2	LC35	Phleum (H)	0.6			
LC29	Puccinellia (H)	2.1	LC35	Scirpus (H)	8.6			
LC29	Ranunculus (H)	30.6	LC35	Alnus (S)	27.5			
LC29	Scirpus (H)	71.5	LC35	Populus (S)	6.5			
LC30	Carex (H)	14.8	LC35	Spiraea (S)	40.6			
LC30	Deschampsia (H)	0.5	LC35	Betula (T)	17.5			
LC30	Dulichium (H)	10.2	LC36	Agrostis (H)	45.5			
LC30	Eleocharis (H)	0.5	LC36	Populus (S)	16.5			
LC30	Equisetum (H)	0.6	LC37	Agrostis (H)	38			
LC30	Glyceria (H)	8.3	LC37	Deschampsia (H)	1.3			
LC30	Grass (H)	23.1	LC37	Moss (H)	6.7			
LC30	Juncus (H)	4.2	LC37	Phalaris (H)	0.2			
LC30	Lemna (H)	0.3	LC37	Scirpus (H)	3.4			
LC30	Lycopus (H)	1.4	LC37	Alnus (S)	24			
LC30	Moss (H)	9.5	LC37	Salix (S)	11.9			
LC30	Phalaris (H)	8.5	LC38	Phalaris (H)	50			
LC30	Scirpus (H)	0.4	LC38	Solanum (H)	2.7			
LC30	Urtricularia (H)	0.5	LC39	Agrostis (H)	0.2			
LC30	Alnus (S)	24.5	LC39	Epilobium (H)	0.4			
LC30	Sagitaria (S)	4.9	LC39	Sagitaria (H)	0.2			
LC30	Salix (S)	1	LC40	Carex (H)	7			
LC30	Spiraea (S)	25	LC40	Lycopus (H)	1			
LC31	Bidens (H)	0.3	LC40	Phalaris (H)	81.8			
LC31	Carex (H)	1.5	LC41	Bidens (H)	0.2			
LC31	Deschampsia (H)	2.5	LC41	Eleocharis (H)	1			
LC31	Sagitaria (H)	1.6	LC41	Lycopus (H)	0.5			
LC31	Scirpus (H)	3	LC41	Moss (H)	6			
LC31	Spiraea (S)	65.5	LC41	Sagitaria (H)	8			
LC32	Agrostis (H)	0.1	LC41	Scirpus (H)	9.7			
LC32	Deschampsia (H)	1.2	LC41	Salix (S)	1.2			
LC32	Equisetum (H)	0.3	LC41	Spiraea (S)	59.6			

\* CC05, CC07, CC08, CC09, NC13, and NC14 were not listed because they were 100% bare ground

**Table B-2**  
**Total Metals (HNO3 digest method) in Soils**

sitename	as.ppm.hno3	as.ppm.hno3.q	cd.ppm.hno3	cd.ppm.hno3.q	cu.ppm.hno3	fe.ppm.hno3	mn.ppm.hno3	pb.ppm.hno3	zn.ppm.hno3
CC01	11.1		4		73.1	17300	999	922	642
CC02	9.1	B	6.5		52.8	15400	681	1040	917
CC03	9.6	B	1.4		23.2	11800	1310	445	424
CC04	33.3		4.9		91.7	19500	750	7960	590
CC05	44.3		44.8		150	38300	2240	9540	7270
CC06	53.8		24.6		168	52300	3770	11300	4790
CC07	19.5		43.8		135	26100	1490	5460	7450
CC08	52.4		5.4		182	36900	527	33300	1120
CC09	65.25		12.1		156.5	51800	341.5	42200	1810
LC01	13.7		0.4	B	18.8	12600	178	172	117
LC02	10.4		3.2		28.5	9540	56.9	1000	205
LC03	14.9		0.67		18.3	14600	96	143	136
LC04	295		21.4		113	87300	8390	4470	2530
LC05	21.6		5.3		39.7	19900	239	1080	445
LC06	150		17.2		160	72200	4290	7600	1850
LC07	25.5		10.2		57.2	21200	608	2290	874
LC08	97.6		13.9		85.9	43200	2250	3130	1380
LC09	38.1		3.8		16.4	15200	1100	372	253
LC10	107		27.9		81	52700	6980	2140	8850
LC11	16.6	B	1.8		29.2	18700	479	241	218
LC12	9.7	B	4.6		23	9830	72.9	417	371
LC13	39.6		22.1		52.5	25000	849	2350	2350
LC14	13.6		3.2		21.8	12400	218	597	303
LC15	146		21.4		92.2	85900	8110	4130	2780
LC16	32.8		6.3		83.2	28000	319	4100	677
LC17	12.3		4.8		18.5	18200	492	326	332
LC18	18.8	B	5.5		52.7	21600	319	2330	515
LC20	22.3		5		32.3	18500	668	1450	532
LC21	272.5		18.85		101.9	71450	5230	3595	1925
LC22	5.9	B	1.5		19.1	21800	236	43.7	85.6
LC23	6.1	B	1.05		24.65	19800	264	60.6	76.55
LC24	5	B	1.4		23	11400	62.1	65.2	68.4
LC25	105		22.6		99	83000	8710	4020	3110
LC26	13.5		2.5		26.2	15100	308	243	156
LC27	4.6	B	3.8		16.1	7360	37.3	291	119
LC28	156		25		103	97300	9820	4250	3140
LC29	11.7		0.3	U	11.4	14900	220	19.8	55
LC30	16.9		2.6		26.9	17600	191	166	279
LC31	117		20.6		126	53300	3510	6100	1790
LC32	316		24.9		126	85300	6720	3820	2340
LC33	29		11.8		53.2	27800	454	2270	581

**Table B-2**  
**Total Metals (HNO3 digest method) in Soils**

sitename	as.ppm.hno3	as.ppm.hno3.q	cd.ppm.hno3	cd.ppm.hno3.q	cu.ppm.hno3	fe.ppm.hno3	mn.ppm.hno3	pb.ppm.hno3	zn.ppm.hno3
LC34	142		21.8		149	52900	2720	5760	2190
LC35	123		19.9		82.3	29300	1720	2320	1550
LC36	84		20		71.7	37900	2860	2400	1600
LC37	74.6		12.8		60.3	38700	3310	2340	1180
LC38	9.7	B	0.92		15.2	13700	312	79.6	143
LC39	25.2		17.1		93.3	35200	1950	5620	1690
LC40	8	B	4.1		22.6	15300	473	505	433
LC41	25.9		9.9		28.1	33400	368	1050	606
LC42	29		4.9		41	24200	543	1050	328
LC43	5.3	B	7.1		16.6	5890	75.6	773	341
LC44	190		31.8		186	72000	8160	8030	2720
LC45	266		30.6		129	95500	10500	4580	3090
NC11	58.1		8.9		156	38500	1430	14500	2670
NC12	23.9		11.7		265	58600	1640	20400	2290
NC13	26.2		3	U	421	74100	741	59600	1540
NC14	50		10.3		192	43200	757	22300	3720
NC15	12.6	B	12.7		143	39800	878	19600	2680
NC16	23.2		3.7		22.8	18100	418	323	507
NC17	16	B	3.2		17.9	16700	482	118	224
NC18	22.7		1.8		19.6	17300	810	80.6	223
NF01	19.7		0.3	U	17.1	15200	480	26.3	86.8
NF02	9.4	B	1.1		16.4	14300	513	25.6	78.1
NF03	8.9	B	1.65		14.9	14100	614	32.75	90
NF04	7.8	B	1.3		14.3	11800	448	23.1	74.6
NF05	8.3	B	0.8		12.6	11400	366	15.6	61.4
NF06	5.3		0.64		8.1	9230	205	8.9	40.4
NF07	10.2		0.3	U	18.1	10600	259	12.7	47.1
NF08	5.7		0.82		18.4	9030	270	11.4	45.2
NF09	7	B	0.86		19.4	10100	273	12.5	45.2
NF10	6.8	B	0.87		16.5	10700	353	13.3	52.7
NF11	4.9	B	1		13.8	9580	254	12.3	46.2
NF12	5.1	B	0.76		20.3	10200	251	12.4	48.3
NF13	7.2	B	1.1		25.2	13400	411	17.2	68.7
NF14	14.3		0.3	U	33	10900	289	11.25	52.55
NF15	6.7	B	1.2		22	13600	458	18.4	69.8
NF16	15.3		0.3	U	42.3	12300	390	20.1	62.7
NF17	6.7	B	1		22.6	11200	289	12.6	54.6
SF06	177		26.7		134	65200	6290	4690	2940
SF07	312		33.8		147	83600	8060	5750	3280
SF08	158		18.1		111	75900	6710	3880	2130
SF09	120		26.7		156	41400	3990	3860	2780

**Table B-2**  
**Total Metals (HNO3 digest method) in Soils**

sitename	as.ppm.hno3	as.ppm.hno3.q	cd.ppm.hno3	cd.ppm.hno3.q	cu.ppm.hno3	fe.ppm.hno3	mn.ppm.hno3	pb.ppm.hno3	zn.ppm.hno3
SF10	215		55.4		361	120000	11400	18100	6670
SF11	247		45.1		227	87000	9550	9410	5080
SF12	309		44.4		221	125000	13300	11800	6470
SF13	231		37.1		269	151000	16000	14600	6510
SF14	230.5		53.2		343	140500	15350	18050	7710
SF15	177		46.9		349	129000	11400	19700	7060
SF16	138		61.1		416	142000	13400	21600	8100
SF17	215		69.8		300	128000	13800	13600	8290
SF18	197		58.9		328	150000	17400	18200	8140
SF19	120		95.7		443	177000	20200	19700	14200
SF20	180		62.9		429	135000	12900	22000	9100
SF21	89.1	B	66.8		416	133000	13700	22100	7930
SF22	131		26.2		138	67200	6570	4700	3240
SF23	140		24.5		164	69500	6950	4960	3070
SF24	93.4		24.8		117	53300	4960	4560	2930
SF25	149		43.7		359	96100	10300	21700	6650
SF26	223		37.7		160	84400	8370	8810	4030
SF27	173		18.1		91.9	71100	6540	5250	2750
SF28	147		33.4		132	66100	6490	5610	3860
SF36	67.7		12		83.4	34200	3010	3050	2030
SF39	116		24.4		218	78100	7170	7950	4060
SF40	126		52.5		340	113000	12800	21800	7310
SF52	70.4		6.3		198	30100	2000	1300	1420
SF55	111		50.6		387	85600	7810	25600	8570
SF56	56.1		18.6		216	48000	3180	17200	3270

**Table B-3**  
**Soil Physical Properties, Potassium, and NO<sub>3</sub>**

sitename	Clay (%)	Sand (%)	Potassium	potassium.qual	Neutralization Potential	NO3 (ppm)	Organic Content (%)	pH	Sulphur (%)
CC01	9	60	86.7		-	0.7	8.7	5.8	-
CC02	8	53	50.4		-	0.4	5.9	5.8	-
CC03	3	82	32.8	B	-	0.1	3.4	6	-
CC04	9	57	22.6	B	-	11	3.2	4.6	-
CC05	3	81	10	U	-	1.2	1	5.5	-
CC06	3	81	10	U	-	2.2	6.1	6	-
CC07	3	83	10	U	-	1.7	0.7	6.4	-
CC08	10	55	12.5	B	-	5.9	1.7	4	-
CC09	10	70	10	U	-	3.25	1.6	3.85	-
LC01	14	15	100	U	1	8.4	4.9	4.9	0.02
LC02	21	25	52.2		-	5.2	10.9	4.4	-
LC03	26	3	101	B	1.5	0.2	5.9	4.8	0.03
LC04	4	40	100	U	3.3	0.2	2.1	5.8	0.05
LC05	25	10	43.7	B	-	1.5	11.8	4.5	-
LC06	11	20	17.2	B	-	1.7	3.3	5.6	-
LC07	19	30	218	B	1.3	0.3	9.5	5.4	0.04
LC08	20	20	100	U	2.8	27.7	6.2	4.7	0.04
LC09	5	38	51.6		-	0.1	2	5.4	-
LC10	16	9	125	B	2.4	0.2	8.9	7	0.07
LC11	18	1	39.8	B	-	8	3.9	5.3	-
LC12	13	34	37.6	B	-	0.2	14.2	4.8	-
LC13	10	25	100	U	1.5	0.3	13.8	5.3	0.22
LC14	35	11	167	B	1.5	0.2	8.9	4.9	0.03
LC15	5	48	37.5	B	-	0.4	2.6	6	-
LC16	28	6	44.2	B	-	10.8	6.1	4.5	-
LC17	13	44	54.7		-	0.1	4.3	5.5	-
LC18	25	10	34.5	B	-	1.8	6.5	4.8	-
LC20	20	29	185	B	1.1	0.2	7.7	5.2	0.01
LC21	10	31	100	U	2.3	3.35	3.85	5.25	0.02
LC22	18	4	70.7		-	1.1	6.4	4.8	-
LC23	38	7	90.9		-	0.05	6.05	5.2	-
LC24	24	25	124		-	0.1	13.1	4.2	-
LC25	3	82	10	U	-	0.2	1.1	7.2	-
LC26	14	41	75.1		-	0.2	13.2	4.7	-
LC27	11	45	120		-	0.2	14	4.7	-
LC28	3	76	24.2	B	-	0.2	1.8	5.9	-
LC29	15	11	100	U	0.9	0.3	4.3	5	0.01
LC30	15	11	100	U	1.8	0.2	10	4.4	0.05
LC31	29	8	33.1	B	-	1.3	5.8	5.3	-
LC32	14	14	37.4	B	-	4.7	3.1	5.7	-
LC33	16	19	47.5	B	-	0.2	8.2	4.9	-
LC34	21	14	27.1	B	-	6.3	6	5	-
LC35	14	10	57.2		-	1.6	6.9	5.5	-
LC36	8	53	23.5	B	-	14.3	4.1	5.1	-
LC37	6	64	16.8	B	-	1.2	1.8	5.4	-
LC38	8	58	51.3		-	10.3	3.1	6	-
LC39	16	18	51.4		-	0.5	7.1	5.3	-
LC40	18	40	39.1	B	-	0.2	5.7	5.2	-
LC41	20	20	20.1	B	-	0.6	3.2	5	-
LC42	18	36	61.9		-	3.8	5.6	5	-
LC43	0	81	57.2		-	0.3	13.7	4.6	-
LC44	19	11	25.2	B	-	3.4	3.8	5.4	-
LC45	5	71	24.3	B	-	0.3	1.7	5.9	-
NC11	5	81	100	U	0.6	1.1	1.2	5	0.27
NC12	8	73	310	B	-	3.8	1.7	4.8	-
NC13	11	41	390	B	-	2.3	1.1	4.1	-
NC14	9	51	100	U	1.3	2.3	1.4	4.7	0.1
NC15	8	72	261	B	-	1.5	2.2	4.4	-
NC16	11	48	100	U	2.8	0.2	13.1	6.1	0.05

**Table B-3**  
**Soil Physical Properties, Potassium, and NO<sub>3</sub>**

sitename	Clay (%)	Sand (%)	Potassium	potassium.qual	Neutralization Potential	NO3 (ppm)	Organic Content (%)	pH	Sulphur (%)
NC17	16	39	2240		-	0	10.4	6.3	-
NC18	9	28	112	B	1.5	0.2	8.9	6.2	0.02
NF01	14	15	100	U	0.9	0.2	7.4	5.7	0.01
NF02	14	19	1430		-	0.1	5.5	5.6	-
NF03	15	25	1090		-	0.1	8.9	5.5	-
NF04	13	34	2900		-	0.1	7.9	6.1	-
NF05	10	45	1510		-	0.1	4.5	6.1	-
NF06	6	70	571		-	0.7	2.4	5.5	-
NF07	8	63	100	U	0.9	0.6	2.3	5.7	0.01
NF08	9	58	571		-	0.05	3	6	-
NF09	9	66	940		-	0.3	3	5.9	-
NF10	10	46	852		-	0.2	4.3	5.8	-
NF11	6	73	941		-	0.3	2	5.9	-
NF12	8	66	881		-	0.2	2.6	6	-
NF13	13	30	752		-	0.2	5.3	5.6	-
NF14	10	56	100	U	1.95	0.15	3.55	6.05	0.01
NF15	16	33	651		-	0.05	3.9	5.4	-
NF16	10	36	100	U	2	0.1	4.8	5.1	0.34
NF17	10	54	731		-	0.05	3.3	5.8	-
SF06	11	54	30.1	B	-	1.4	2.1	6.2	-
SF07	5	67	430	B	-	0.9	1.9	5.8	-
SF08	5	85	16.2	B	-	0.5	0.7	6.9	-
SF09	11	23	36.1	B	-	0.1	3.5	6.4	-
SF10	5	50	661		-	0.6	1.4	5.9	-
SF11	8	52	782		-	0.4	1.9	5.7	-
SF12	1	85	100	U	1.8	0.8	0.7	5.9	0.33
SF13	5	77	13.1	B	-	1.2	0.4	5.3	-
SF14	1	62	100	U	1.85	1.4	0.9	5.85	0.455
SF15	9	47	37.1	B	-	0.7	1.7	6.6	-
SF16	5	54	18.4	B	-	0.7	1.6	6.7	-
SF17	5	75	15.7	B	-	0.6	1.2	6.2	-
SF18	3	78	120	B	-	1.2	0.7	5.7	-
SF19	3	76	10	U	-	1.6	0.9	6.6	-
SF20	8	52	24.9	B	-	0.6	1.3	6.7	-
SF21	6	58	19	B	-	2.5	1.8	6.8	-
SF22	4	90	200	B	-	0.8	0.9	6.8	-
SF23	4	88	160	B	-	1	2	6.3	-
SF24	5	84	180	B	-	1.1	0.6	6.5	-
SF25	5	71	100	U	5.1	2.8	1.5	6.4	0.01
SF26	5	77	190	B	-	1.1	0.9	6.3	-
SF27	1	89	100	U	2.5	0.7	0.8	6.6	0.37
SF28	5	80	190	B	-	1.1	0.9	6.5	-
SF36	3	88	100	U	5.1	1.8	0.8	7	0.11
SF39	10	62	410	B	-	0.7	1.6	5.9	-
SF40	8	77	190	B	-	1.1	0.9	5.2	-
SF52	18	38	1970		-	0.3	2.8	7.2	-
SF55	9	72	390	B	-	3.4	2	6.5	-
SF56	13	57	800		-	0.1	2.7	6.8	-



**Table B-4a**  
**Phytotoxicity Test Results**

sitename	pot	Stem Mass			Stem Length			Root Mass			Root Length		
		N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD
CC01	1	5	0.033	0.003	5	254	10.807	5	0.010	0.003	5	184	69.449
CC01	10	6	0.034	0.008	6	242	19.633	6	0.014	0.003	6	176	23.449
CC01	2	6	0.033	0.014	6	210	32.882	6	0.014	0.007	6	145	57.650
CC01	3	3	0.022	0.008	3	196	59.349	3	0.010	0.005	3	98	42.568
CC01	4	3	0.039	0.004	3	234	15.503	3	0.014	0.001	3	176	27.592
CC01	5	5	0.031	0.006	5	257	7.294	5	0.011	0.002	5	185	24.294
CC01	6	3	0.031	0.011	3	216	20.881	3	0.013	0.007	3	146	53.594
CC01	7	1	0.034	0.000	1	230	0.000	1	0.011	0.000	1	167	0.000
CC01	8	2	0.036	0.011	2	240	2.121	2	0.013	0.002	2	215	7.071
CC01	9	5	0.041	0.009	5	224	21.319	5	0.018	0.005	5	177	31.019
CC02	1	3	0.036	0.007	3	230	11.150	3	0.019	0.004	3	194	23.580
CC02	10	3	0.025	0.010	3	231	29.462	3	0.016	0.003	3	209	48.789
CC02	2	3	0.037	0.002	3	237	4.933	3	0.022	0.003	3	176	5.568
CC02	3	1	0.032	0.000	1	230	0.000	1	0.014	0.000	1	148	0.000
CC02	4	2	0.027	0.006	2	234	56.569	2	0.009	0.000	2	116	6.364
CC02	5	3	0.025	0.001	3	241	8.737	3	0.011	0.004	3	207	10.214
CC02	7	1	0.039	0.000	1	219	0.000	1	0.014	0.000	1	171	0.000
CC02	8	2	0.029	0.003	2	244	21.213	2	0.013	0.003	2	159	31.820
CC02	9	2	0.033	0.007	2	225	21.920	2	0.014	0.004	2	191	16.971
CC04	1	10	0.018	0.004	10	113	18.800	10	0.013	0.020	10	21	4.899
CC04	10	6	0.018	0.005	6	123	11.221	6	0.007	0.001	6	23	3.204
CC04	2	9	0.019	0.003	9	120	13.892	9	0.009	0.002	9	23	6.629
CC04	3	9	0.019	0.008	9	119	24.884	9	0.007	0.003	9	21	4.528
CC04	4	9	0.018	0.003	9	118	9.619	9	0.008	0.002	9	24	3.432
CC04	5	7	0.020	0.002	7	127	10.808	7	0.009	0.002	7	25	2.225
CC04	6	9	0.017	0.005	9	115	20.125	9	0.008	0.002	9	25	4.610
CC04	7	8	0.017	0.004	8	111	16.869	8	0.007	0.001	8	23	2.659
CC04	8	6	0.019	0.002	6	125	9.432	6	0.007	0.002	6	20	6.178
CC04	9	9	0.020	0.004	9	124	16.024	9	0.008	0.001	9	27	7.612
CC08	1	9	0.012	0.004	9	97	14.281	9	0.008	0.004	9	9	3.640
CC08	10	8	0.012	0.003	8	87	17.847	8	0.009	0.003	8	10	4.621
CC08	2	6	0.015	0.003	6	94	12.319	6	0.008	0.001	6	8	3.545
CC08	3	7	0.014	0.005	7	101	27.054	7	0.008	0.002	7	10	3.309
CC08	4	7	0.015	0.006	7	106	27.802	7	0.008	0.002	7	11	2.289
CC08	5	10	0.012	0.005	10	96	24.223	10	0.006	0.002	10	7	1.619
CC08	6	9	0.012	0.003	9	92	19.972	9	0.007	0.003	9	9	4.540
CC08	7	8	0.016	0.003	8	104	22.071	8	0.008	0.002	8	8	3.370
CC08	8	9	0.016	0.010	9	97	10.663	9	0.008	0.002	9	9	6.160
CC08	9	3	0.010	0.002	3	77	11.790	3	0.008	0.001	3	6	1.155
CC09	1	9	0.011	0.002	9	99	8.638	9	0.007	0.003	9	11	3.993
CC09	10	9	0.011	0.004	9	84	11.942	9	0.008	0.002	9	11	4.595
CC09	2	8	0.013	0.003	8	105	21.413	8	0.009	0.002	8	12	4.200
CC09	3	7	0.012	0.002	7	92	15.689	7	0.010	0.003	7	10	4.726
CC09	4	8	0.011	0.003	8	101	11.426	8	0.010	0.002	8	13	3.399
CC09	5	7	0.014	0.005	7	103	23.790	7	0.011	0.003	7	10	3.388
CC09	6	9	0.011	0.004	9	85	20.885	9	0.007	0.004	9	10	3.492
CC09	7	9	0.012	0.004	9	85	14.457	9	0.009	0.004	9	8	2.963
CC09	8	8	0.010	0.002	8	88	9.472	8	0.009	0.002	8	11	4.472
CC09	9	9	0.011	0.003	9	94	16.300	9	0.007	0.002	9	11	2.920
LC03	3	1	0.029	0.000	1	212	0.000	1	0.019	0.000	1	194	0.000
LC03	5	1	0.029	0.000	1	208	0.000	1	0.019	0.000	1	232	0.000
LC03	8	2	0.018	0.019	2	125	84.146	2	0.011	0.013	2	88	57.983
LC04	1	5	0.025	0.010	5	246	25.086	5	0.042	0.032	5	238	91.073
LC04	10	5	0.026	0.009	5	205	41.536	5	0.036	0.017	5	242	44.300
LC04	2	3	0.024	0.005	3	227	15.177	3	0.022	0.009	3	259	15.044
LC04	3	9	0.015	0.004	9	139	33.429	9	0.042	0.028	9	238	53.976
LC04	4	1	0.012	0.000	1	130	0.000	1	0.009	0.000	1	244	0.000
LC04	5	3	0.033	0.003	3	241	5.292	3	0.058	0.024	3	290	31.501
LC04	6	5	0.024	0.008	5	188	26.220	5	0.038	0.015	5	216	46.864

**Table B-4a**  
**Phytotoxicity Test Results**

sitename	pot	Stem Mass			Stem Length			Root Mass			Root Length		
		N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD
LC04	7	2	0.028	0.008	2	229	35.355	2	0.058	0.046	2	246	15.556
LC04	8	7	0.023	0.009	7	187	47.194	7	0.048	0.025	7	218	66.905
LC04	9	3	0.014	0.015	3	128	91.263	3	0.031	0.029	3	140	116.217
LC07	1	1	0.021	0.000	1	210	0.000	1	0.053	0.000	1	200	0.000
LC08	1	10	0.033	0.007	10	198	20.733	10	0.025	0.009	10	151	24.909
LC08	10	10	0.028	0.007	10	198	42.896	10	0.018	0.004	10	133	22.910
LC08	2	6	0.029	0.005	6	189	15.501	6	0.019	0.006	6	110	8.042
LC08	3	8	0.027	0.010	8	182	40.377	8	0.019	0.009	8	87	17.752
LC08	4	10	0.026	0.011	10	175	57.034	10	0.017	0.007	10	91	34.097
LC08	5	7	0.031	0.012	7	213	28.895	7	0.020	0.005	7	117	33.035
LC08	6	8	0.033	0.006	8	205	20.170	8	0.020	0.003	8	123	21.230
LC08	7	10	0.028	0.009	10	196	41.555	10	0.017	0.006	10	161	39.564
LC08	8	9	0.031	0.006	9	203	19.774	9	0.024	0.006	9	192	26.655
LC08	9	9	0.026	0.009	9	197	36.208	9	0.016	0.005	9	105	15.898
LC10	2	1	0.043	0.000	1	253	0.000	1	0.036	0.000	1	110	0.000
LC14	1	9	0.021	0.003	9	208	23.740	9	0.040	0.020	9	230	32.288
LC14	10	10	0.024	0.004	10	222	23.329	10	0.028	0.008	10	183	36.897
LC14	2	10	0.023	0.006	10	211	46.665	10	0.037	0.016	10	192	43.228
LC14	3	10	0.019	0.007	10	180	48.325	10	0.020	0.011	10	128	29.909
LC14	4	9	0.023	0.007	9	223	40.203	9	0.027	0.021	9	182	43.317
LC14	5	10	0.023	0.012	10	194	39.057	10	0.033	0.020	10	205	54.799
LC14	6	10	0.029	0.005	10	232	21.310	10	0.058	0.068	10	148	33.025
LC14	7	9	0.024	0.009	9	211	66.324	9	0.058	0.039	9	183	58.189
LC14	8	10	0.024	0.008	10	190	48.998	10	0.041	0.037	10	149	54.624
LC14	9	9	0.033	0.010	9	256	51.713	9	0.082	0.074	9	153	59.062
LC20	1	9	0.027	0.008	9	215	40.858	9	0.018	0.010	9	189	59.586
LC20	10	7	0.029	0.007	7	206	41.960	7	0.018	0.004	7	135	33.424
LC20	2	10	0.032	0.019	10	203	47.918	10	0.020	0.011	10	184	44.101
LC20	3	10	0.023	0.007	10	206	32.969	10	0.015	0.005	10	208	70.007
LC20	4	10	0.033	0.007	10	224	19.553	10	0.023	0.011	10	150	35.202
LC20	5	8	0.028	0.007	8	243	23.021	8	0.019	0.009	8	197	56.382
LC20	6	9	0.031	0.007	9	216	40.227	9	0.020	0.006	9	150	31.165
LC20	7	8	0.027	0.008	8	236	53.130	8	0.023	0.012	8	173	65.223
LC20	8	9	0.032	0.008	9	238	24.847	9	0.021	0.006	9	169	53.362
LC20	9	9	0.038	0.008	9	221	33.594	9	0.033	0.020	9	165	33.986
LC21	10	2	0.026	0.001	2	183	18.385	2	0.031	0.006	2	196	19.799
LC21	7	1	0.001	0.000	1	25	0.000	1	0.002	0.000	1	38	0.000
LC29	2	1	0.005	0.000	1	95	0.000	1	0.001	0.000	1	10	0.000
LC29	3	1	0.034	0.000	1	231	0.000	1	0.021	0.000	1	298	0.000
LC29	4	1	0.013	0.000	1	141	0.000	1	0.001	0.000	1	58	0.000
LC29	5	1	0.002	0.000	1	29	0.000	1	0.001	0.000	1	3	0.000
LC29	6	1	0.022	0.000	1	211	0.000	1	0.010	0.000	1	174	0.000
NC11	1	9	0.012	0.003	9	87	13.706	9	0.010	0.002	9	24	5.657
NC11	2	10	0.013	0.005	10	95	14.863	10	0.010	0.004	10	26	5.016
NC11	3	9	0.015	0.005	9	97	19.479	9	0.012	0.004	9	27	5.019
NC11	4	8	0.010	0.003	8	84	13.371	8	0.009	0.002	8	21	3.662
NC11	5	10	0.012	0.003	10	92	10.285	10	0.009	0.002	10	23	9.274
NC11	6	8	0.014	0.002	8	79	14.643	8	0.010	0.003	8	20	4.690
NC11	7	7	0.014	0.003	7	91	8.995	7	0.009	0.002	7	25	4.163
NC11	8	10	0.014	0.004	10	90	12.767	10	0.009	0.001	10	21	6.433
NC14	1	4	0.009	0.005	4	45	19.155	4	0.006	0.003	4	5	2.363
NC14	10	7	0.011	0.005	7	57	14.140	7	0.010	0.003	7	6	3.039
NC14	2	2	0.008	0.003	2	54	4.243	2	0.006	0.000	2	5	1.414
NC14	3	6	0.009	0.004	6	57	16.330	6	0.007	0.002	6	6	1.378
NC14	4	5	0.010	0.003	5	60	10.198	5	0.008	0.003	5	6	2.550
NC14	5	2	0.009	0.002	2	63	24.042	2	0.008	0.001	2	6	2.121
NC14	6	4	0.012	0.004	4	64	4.203	4	0.010	0.001	4	6	1.258
NC14	7	4	0.009	0.003	4	51	11.758	4	0.008	0.003	4	5	1.414
NC14	8	5	0.011	0.004	5	62	16.906	5	0.008	0.003	5	5	1.414

**Table B-4a**  
**Phytotoxicity Test Results**

sitename	pot	Stem Mass			Stem Length			Root Mass			Root Length		
		N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD
NC14	9	6	0.013	0.004	6	62	7.960	6	0.008	0.003	6	5	1.871
NC16	1	1	0.029	0.000	1	234	0.000	1	0.013	0.000	1	224	0.000
NC16	10	1	0.030	0.000	1	237	0.000	1	0.023	0.000	1	343	0.000
NC16	2	1	0.036	0.000	1	265	0.000	1	0.029	0.000	1	228	0.000
NC16	3	1	0.044	0.000	1	253	0.000	1	0.024	0.000	1	196	0.000
NC16	5	2	0.022	0.001	2	192	31.113	2	0.015	0.002	2	205	62.933
NC16	6	2	0.039	0.006	2	270	19.092	2	0.025	0.006	2	281	41.719
NC16	7	2	0.024	0.002	2	227	10.607	2	0.014	0.001	2	161	14.849
NC18	1	10	0.029	0.010	10	197	43.079	10	0.016	0.007	10	194	32.233
NC18	10	6	0.029	0.008	6	224	17.325	6	0.017	0.005	6	186	36.958
NC18	2	6	0.024	0.007	6	203	23.721	6	0.013	0.002	6	180	13.357
NC18	3	6	0.025	0.005	6	201	25.781	6	0.016	0.005	6	203	16.368
NC18	4	7	0.023	0.006	7	196	24.940	7	0.016	0.004	7	213	54.540
NC18	5	8	0.027	0.006	8	224	23.037	8	0.017	0.004	8	202	16.548
NC18	6	8	0.022	0.007	8	201	45.574	8	0.015	0.006	8	227	71.104
NC18	7	9	0.025	0.003	9	214	14.670	9	0.016	0.003	9	214	10.220
NC18	8	6	0.033	0.008	6	205	29.521	6	0.018	0.005	6	201	25.367
NC18	9	8	0.031	0.006	8	228	11.600	8	0.018	0.003	8	225	31.244
NF01	1	10	0.038	0.009	10	250	23.752	10	0.026	0.011	10	234	75.232
NF01	10	9	0.035	0.003	9	246	15.592	9	0.019	0.004	9	279	72.208
NF01	2	8	0.035	0.010	8	251	38.862	8	0.017	0.006	8	208	40.430
NF01	3	10	0.031	0.005	10	231	14.868	10	0.019	0.006	10	231	59.667
NF01	4	10	0.027	0.008	10	239	26.025	10	0.019	0.007	10	263	60.260
NF01	5	10	0.033	0.006	10	239	14.516	10	0.023	0.005	10	245	24.823
NF01	6	10	0.038	0.013	10	240	34.406	10	0.019	0.008	10	273	59.106
NF01	7	10	0.036	0.009	10	253	13.809	10	0.019	0.006	10	207	20.766
NF01	8	9	0.039	0.008	9	263	14.351	9	0.021	0.008	9	230	43.124
NF01	9	10	0.034	0.007	10	247	30.135	10	0.017	0.003	10	218	30.510
NF03	1	10	0.033	0.012	10	253	46.891	10	0.012	0.005	10	235	69.820
NF03	10	10	0.040	0.007	10	272	6.512	10	0.013	0.003	10	200	55.574
NF03	2	10	0.028	0.004	10	241	17.485	10	0.015	0.003	10	299	76.983
NF03	3	10	0.041	0.007	10	279	12.801	10	0.011	0.004	10	251	124.929
NF03	4	9	0.032	0.005	9	240	26.888	9	0.012	0.004	9	209	82.411
NF03	5	10	0.041	0.006	10	265	12.834	10	0.011	0.004	10	172	65.491
NF03	6	10	0.032	0.010	10	239	26.608	10	0.019	0.014	10	237	125.538
NF03	7	10	0.027	0.006	10	246	19.894	10	0.012	0.004	10	219	73.399
NF03	8	10	0.038	0.005	10	285	24.232	10	0.010	0.001	10	185	54.549
NF03	9	9	0.029	0.006	9	258	16.303	9	0.013	0.004	9	264	101.794
NF07	1	6	0.028	0.004	6	212	16.888	6	0.019	0.007	6	176	38.775
NF07	10	10	0.038	0.010	10	212	30.609	10	0.026	0.006	10	172	39.724
NF07	2	9	0.035	0.014	9	213	27.953	9	0.024	0.011	9	170	10.438
NF07	3	9	0.031	0.010	9	224	43.920	9	0.017	0.006	9	153	25.281
NF07	4	9	0.030	0.007	9	224	18.979	9	0.018	0.009	9	198	70.296
NF07	5	7	0.023	0.004	7	227	22.845	7	0.012	0.003	7	173	11.625
NF07	6	7	0.027	0.004	7	219	15.646	7	0.018	0.004	7	165	22.292
NF07	7	7	0.033	0.007	7	230	12.321	7	0.020	0.010	7	181	80.143
NF07	8	6	0.029	0.017	6	183	62.682	6	0.016	0.009	6	145	51.333
NF07	9	7	0.030	0.004	7	230	28.818	7	0.018	0.003	7	185	40.702
NF08	1	8	0.022	0.006	8	219	34.993	8	0.013	0.005	8	229	52.822
NF08	10	7	0.031	0.005	7	267	22.882	7	0.020	0.004	7	232	13.367
NF08	2	3	0.032	0.001	3	250	5.508	3	0.016	0.002	3	205	33.946
NF08	3	9	0.025	0.004	9	239	22.386	9	0.012	0.005	9	189	43.532
NF08	4	7	0.030	0.006	7	248	14.660	7	0.016	0.004	7	187	35.128
NF08	5	4	0.029	0.005	4	228	23.027	4	0.015	0.004	4	173	6.292
NF08	6	7	0.028	0.005	7	233	29.455	7	0.014	0.003	7	201	26.714
NF08	7	3	0.038	0.004	3	242	4.509	3	0.019	0.004	3	186	26.851
NF08	8	6	0.031	0.015	6	213	59.029	6	0.018	0.010	6	203	46.728
NF08	9	4	0.034	0.011	4	245	27.459	4	0.020	0.006	4	203	48.767
NF14	1	6	0.034	0.010	6	250	23.752	6	0.015	0.004	6	168	22.259

**Table B-4a**  
**Phytotoxicity Test Results**

sitename	pot	Stem Mass			Stem Length			Root Mass			Root Length		
		N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD
NF14	10	8	0.029	0.003	8	233	12.118	8	0.020	0.003	8	276	59.017
NF14	2	5	0.034	0.009	5	215	43.489	5	0.018	0.002	5	208	38.102
NF14	3	7	0.036	0.004	7	248	14.537	7	0.019	0.003	7	254	44.977
NF14	4	3	0.040	0.007	3	265	14.978	3	0.023	0.006	3	301	81.191
NF14	5	2	0.039	0.008	2	251	30.406	2	0.021	0.004	2	231	28.991
NF14	6	8	0.026	0.007	8	246	22.074	8	0.012	0.003	8	164	16.105
NF14	7	3	0.033	0.007	3	223	35.247	3	0.016	0.004	3	185	13.577
NF14	8	10	0.024	0.004	10	221	16.507	10	0.015	0.002	10	253	57.812
NF14	9	7	0.033	0.010	7	246	41.016	7	0.012	0.005	7	157	30.905
NF16	1	10	0.037	0.027	10	249	52.873	10	0.016	0.014	10	214	56.972
NF16	10	10	0.035	0.006	10	276	16.965	10	0.019	0.007	10	267	44.921
NF16	2	9	0.031	0.007	9	272	25.567	9	0.015	0.005	9	249	30.951
NF16	3	9	0.042	0.004	9	294	11.487	9	0.021	0.011	9	255	60.108
NF16	4	10	0.030	0.006	10	256	33.367	10	0.019	0.007	10	256	30.450
NF16	5	9	0.046	0.028	9	281	24.132	9	0.018	0.007	9	228	25.019
NF16	6	9	0.047	0.013	9	282	24.124	9	0.024	0.016	9	231	54.731
NF16	7	10	0.034	0.008	10	277	19.319	10	0.014	0.004	10	216	40.897
NF16	8	10	0.045	0.007	10	285	13.062	10	0.024	0.015	10	239	22.761
NF16	9	8	0.042	0.010	8	278	24.710	8	0.022	0.019	8	211	45.154
SF06	1	9	0.024	0.006	9	184	26.639	9	0.021	0.006	9	247	34.498
SF06	10	9	0.028	0.004	9	204	13.059	9	0.018	0.002	9	218	23.563
SF06	2	10	0.024	0.008	10	174	31.482	10	0.016	0.003	10	236	18.918
SF06	3	10	0.021	0.004	10	176	26.433	10	0.015	0.003	10	239	54.471
SF06	4	9	0.026	0.006	9	199	33.804	9	0.017	0.005	9	218	48.900
SF06	5	9	0.021	0.012	9	172	43.141	9	0.011	0.005	9	176	26.720
SF06	6	8	0.030	0.006	8	205	16.852	8	0.028	0.017	8	269	26.578
SF06	7	10	0.021	0.010	10	170	47.255	10	0.015	0.007	10	200	53.246
SF06	8	10	0.030	0.004	10	198	17.045	10	0.023	0.008	10	244	46.703
SF06	9	10	0.020	0.007	10	178	30.902	10	0.014	0.003	10	190	33.778
SF12	1	1	0.017	0.000	1	184	0.000	1	0.020	0.000	1	182	0.000
SF12	6	1	0.022	0.000	1	194	0.000	1	0.033	0.000	1	235	0.000
SF12	7	1	0.024	0.000	1	200	0.000	1	0.026	0.000	1	299	0.000
SF14	1	1	0.007	0.000	1	114	0.000	1	0.005	0.000	1	72	0.000
SF14	10	4	0.016	0.011	4	120	76.203	4	0.011	0.010	4	178	116.053
SF14	2	4	0.013	0.008	4	131	48.597	4	0.012	0.008	4	185	100.367
SF14	3	6	0.017	0.007	6	165	42.720	6	0.013	0.007	6	195	68.110
SF14	4	4	0.024	0.014	4	179	72.835	4	0.018	0.007	4	219	88.689
SF14	5	3	0.024	0.018	3	176	71.122	3	0.101	0.155	3	199	113.918
SF14	6	4	0.011	0.007	4	132	47.198	4	0.008	0.005	4	172	85.656
SF14	7	2	0.016	0.016	2	126	114.551	2	0.012	0.014	2	156	142.128
SF14	8	1	0.011	0.000	1	129	0.000	1	0.011	0.000	1	100	0.000
SF14	9	1	0.021	0.000	1	186	0.000	1	0.021	0.000	1	250	0.000
SF23	1	10	0.028	0.003	10	203	11.681	10	0.023	0.004	10	238	20.382
SF23	10	5	0.017	0.009	5	159	67.987	5	0.015	0.007	5	237	118.170
SF23	2	6	0.024	0.005	6	193	22.613	6	0.018	0.005	6	226	31.856
SF23	3	8	0.025	0.005	8	186	12.558	8	0.024	0.005	8	257	59.700
SF23	4	9	0.023	0.009	9	177	43.255	9	0.020	0.007	9	217	59.691
SF23	5	9	0.024	0.007	9	181	22.517	9	0.021	0.003	9	247	50.677
SF23	6	8	0.027	0.007	8	204	19.138	8	0.019	0.007	8	244	40.461
SF23	7	9	0.023	0.008	9	172	37.715	9	0.017	0.006	9	181	46.877
SF23	8	7	0.024	0.005	7	203	16.857	7	0.016	0.003	7	231	24.980
SF23	9	10	0.026	0.007	9	177	23.856	10	0.020	0.006	9	270	32.160
SF25	1	9	0.029	0.006	9	192	10.565	9	0.017	0.003	9	203	50.309
SF25	10	8	0.031	0.005	8	204	20.010	8	0.021	0.004	8	229	30.123
SF25	2	6	0.030	0.005	6	210	14.588	6	0.019	0.001	6	199	37.109
SF25	3	9	0.026	0.004	9	203	12.679	9	0.020	0.005	9	255	50.520
SF25	4	6	0.036	0.015	6	217	20.474	6	0.053	0.068	6	227	48.845
SF25	5	8	0.028	0.004	8	199	15.593	8	0.022	0.005	8	240	47.920
SF25	6	9	0.024	0.004	9	205	17.804	9	0.019	0.005	9	239	26.897

**Table B-4a**  
**Phytotoxicity Test Results**

sitename	pot	Stem Mass			Stem Length			Root Mass			Root Length		
		N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD
SF25	7	3	0.025	0.004	3	212	5.508	3	0.020	0.004	3	234	68.157
SF25	8	10	0.022	0.008	10	181	21.348	10	0.038	0.041	10	215	38.233
SF25	9	6	0.030	0.004	6	200	5.565	6	0.023	0.005	6	222	18.681
SF27	1	10	0.024	0.008	10	188	36.762	10	0.024	0.009	10	244	38.270
SF27	10	10	0.024	0.005	10	175	16.251	10	0.021	0.006	10	236	37.521
SF27	2	10	0.028	0.007	10	197	14.765	10	0.027	0.007	10	202	31.940
SF27	3	10	0.024	0.006	10	181	27.446	10	0.028	0.013	10	282	32.332
SF27	4	10	0.022	0.003	10	193	13.718	10	0.020	0.003	10	252	28.229
SF27	5	10	0.028	0.006	10	210	18.915	10	0.022	0.005	10	265	42.674
SF27	6	10	0.025	0.007	10	198	18.646	10	0.021	0.006	10	237	34.850
SF27	7	10	0.024	0.009	10	193	40.010	10	0.021	0.008	10	246	51.242
SF27	8	10	0.026	0.004	10	197	13.449	10	0.026	0.005	10	278	19.697
SF27	9	10	0.028	0.005	10	207	12.275	10	0.022	0.003	10	248	45.468
SF36	1	10	0.028	0.010	10	179	33.008	10	0.023	0.012	10	179	45.692
SF36	10	10	0.022	0.005	10	186	23.557	10	0.020	0.006	10	174	27.897
SF36	2	9	0.028	0.009	9	192	25.016	9	0.022	0.006	9	216	24.270
SF36	3	9	0.029	0.008	9	196	28.457	9	0.024	0.007	9	195	20.427
SF36	4	9	0.022	0.008	9	183	35.391	9	0.017	0.005	9	187	47.565
SF36	5	9	0.033	0.013	7	203	24.710	9	0.025	0.005	7	166	25.566
SF36	6	7	0.028	0.007	9	194	22.147	7	0.020	0.005	9	182	35.011
SF36	7	10	0.026	0.004	10	189	19.027	10	0.025	0.004	10	229	25.651
SF36	8	7	0.025	0.013	7	191	56.564	7	0.017	0.007	7	174	39.070
SF36	9	9	0.025	0.009	9	192	30.925	9	0.019	0.005	9	204	39.922
SF39	1	2	0.018	0.009	2	195	24.042	2	0.010	0.004	2	182	69.296
SF39	4	2	0.025	0.021	2	196	61.518	2	0.014	0.013	2	138	70.711
SF39	6	1	0.028	0.000	1	215	0.000	1	0.011	0.000	1	251	0.000
SF39	7	4	0.017	0.003	4	172	25.395	4	0.014	0.002	4	264	11.471
SF55	1	7	0.021	0.008	7	153	30.956	7	0.012	0.004	7	121	9.771
SF55	10	10	0.025	0.009	10	170	32.327	10	0.018	0.009	10	139	23.841
SF55	2	10	0.022	0.005	10	167	19.614	10	0.015	0.004	10	135	31.262
SF55	3	10	0.024	0.006	10	181	16.898	10	0.015	0.003	10	153	28.445
SF55	4	10	0.023	0.006	10	172	22.368	10	0.014	0.003	10	132	13.924
SF55	5	9	0.024	0.007	9	181	26.725	9	0.016	0.003	9	151	33.982
SF55	6	9	0.026	0.007	9	183	25.553	9	0.015	0.005	9	121	22.114
SF55	7	10	0.028	0.006	10	187	16.210	10	0.017	0.004	10	139	26.743
SF55	8	10	0.027	0.005	10	186	15.397	10	0.018	0.004	10	148	20.726
SF55	9	10	0.025	0.006	10	181	17.852	10	0.016	0.003	10	136	27.365

**Table B-4b**  
**Phytotoxicity Test Results**

sitename	pot	Stem Mass			Stem Length			Root Mass			Root Length		
		N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD
CC01	1	1	0.081	0	15	57.9	6.4	1	0.048	0	15	37.3	15.3
CC01	2	1	0.042	0	11	60.5	24.5	1	0.013	0	11	20.3	15.2
CC01	3	1	0.048	0	10	52.3	6.3	1	0.025	0	10	33.4	10.1
CC01	4	1	0.054	0	8	62.3	8.3	1	0.024	0	8	31.1	9.8
CC01	5	1	0.091	0	14	65.1	12.8	1	0.014	0	14	31.5	27.4
CC02	1	1	0.062	0	16	58.4	10.7	1	0.012	0	16	38.6	20.2
CC02	2	1	0.081	0	17	46.5	7.5	1	0.096	0	17	32.7	11.6
CC02	3	1	0.111	0	19	54.7	7.7	1	0.018	0	19	32.1	9.3
CC02	4	1	0.093	0	18	56.7	9.5	1	0.018	0	18	34.6	17.9
CC02	5	1	0.075	0	19	59.5	15.1	1	0.016	0	19	31.5	10.8
CC04	1	1	0.032	0	15	7.5	2.5	1	0.001	0	15	2.6	1.1
CC04	2	1	0.013	0	10	8.3	1.6	1	0.002	0	10	2.5	0.7
CC04	3	1	0.054	0	8	6.4	0.7	1	0.005	0	8	2.9	0.8
CC04	4	1	0.019	0	15	6.7	1.2	1	0.006	0	15	3.1	0.8
CC04	5	1	0.017	0	11	8.6	2.5	1	0.003	0	11	3.0	0.4
CC08	1	1	0.007	0	6	8.2	0.8	1	0	0	6	0.8	0.8
CC08	2	1	0.005	0	7	7.1	0.7	1	0	0	7	1.1	1.1
CC08	3	1	0.007	0	5	8.8	2.0	1	0	0	5	1.8	0.4
CC08	4	1	0.002	0	2	8.0	1.4	1	0	0	2	0.5	0.7
CC08	5	1	0.007	0	6	7.5	1.0	1	0	0	6	0.3	0.5
CC09	1	1	0.004	0	5	7.4	1.5	1	0.001	0	5	2.8	1.1
CC09	2	1	0.001	0	1	7.0	0.0	1	0.001	0	1	2.0	0.0
CC09	3	1	0.005	0	4	7.5	1.3	1	0.004	0	4	3.8	0.5
CC09	4	1	0.006	0	7	6.9	1.3	1	0.002	0	7	3.0	1.0
CC09	5	1	0.003	0	5	6.4	0.9	1	0.004	0	5	3.6	0.5
LC01	1	1	0.017	0	5	44.8	8.4	1	0.002	0	5	22.6	8.4
LC01	2	1	0.007	0	8	15.0	8.9	1	0.007	0	8	19.3	11.6
LC01	3	1	0.001	0	2	11.5	2.1	1	0.001	0	2	27.0	25.5
LC01	4	1	0.002	0	2	14.5	0.7	1	0.002	0	2	44.5	3.5
LC01	5	1	0.001	0	1	17.0	0.0	1	0.002	0	1	37.0	0.0
LC03	1	1	0.006	0	5	8.0	2.2	1	0.004	0	5	22.0	15.1
LC03	2	1	0.01	0	7	13.3	3.6	1	0.005	0	7	26.6	7.8
LC03	3	1	0.008	0	8	15.4	4.9	1	0.005	0	8	18.3	6.2
LC03	4	1	0.002	0	2	11.0	4.2	1	0.001	0	2	21.0	4.2
LC03	5	1	0.005	0	4	17.0	5.6	1	0.001	0	4	16.0	4.2
LC04	1	1	0.032	0	9	27.7	3.2	1	0.008	0	9	60.6	20.1
LC04	2	1	0.039	0	14	28.2	6.2	1	0.007	0	14	31.6	16.0
LC04	3	1	0.049	0	15	40.1	7.9	1	0.006	0	15	35.1	12.4
LC04	4	1	0.051	0	18	25.8	6.9	1	0.021	0	18	67.2	27.6
LC04	5	1	0.044	0	15	28.7	8.2	1	0.01	0	15	47.9	22.1
LC07	1	1	0.008	0	2	41.0	29.7	1	0.001	0	2	26.0	29.7
LC07	2	1	0.001	0	1	13.0	0.0	1	0.001	0	1	5.0	0.0
LC07	3	1	0.009	0	5	23.8	7.6	1	0.003	0	5	17.8	5.7
LC07	4	1	0.007	0	1	41.0	0.0	1	0.001	0	1	29.0	0.0
LC07	5	1	0.001	0	1	13.0	0.0	1	0.001	0	1	9.0	0.0
LC08	1	1	0.059	0	19	15.2	6.3	1	0.006	0	19	6.2	3.2
LC08	2	1	0.036	0	17	15.6	7.2	1	0.004	0	17	6.6	3.4
LC08	3	1	0.03	0	9	14.9	4.2	1	0.005	0	9	7.2	3.4
LC08	4	1	0.054	0	14	15.5	4.9	1	0.008	0	14	8.1	3.4
LC08	5	1	0.026	0	17	16.4	8.6	1	0.007	0	17	7.8	3.8
LC10	1	1	0.007	0	6	8.2	0.8	1	0	0	6	0.8	0.8
LC10	2	1	0.005	0	7	7.1	0.7	1	0	0	7	1.1	1.1
LC10	3	1	0.007	0	5	8.8	2.0	1	0	0	5	1.8	0.4
LC10	4	1	0.002	0	2	8.0	1.4	1	0	0	2	0.5	0.7
LC10	5	1	0.007	0	6	7.5	1.0	1	0	0	6	0.3	0.5
LC14	1	1	0.072	0	17	68.8	11.2	1	0.023	0	17	46.6	24.8
LC14	2	1	0.108	0	17	61.8	10.9	1	0.027	0	17	66.5	18.6
LC14	3	1	0.088	0	16	51.1	8.8	1	0.023	0	16	66.3	19.6
LC14	4	1	0.105	0	19	66.2	11.6	1	0.027	0	19	52.4	25.3

**Table B-4b**  
**Phytotoxicity Test Results**

sitename	pot	Stem Mass			Stem Length			Root Mass			Root Length		
		N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD
LC14	5	1	0.076	0	16	48.6	12.0	1	0.022	0	16	54.7	28.1
LC20	1	1	0.08	0	16	62.6	20.1	1	0.008	0	16	38.9	21.6
LC20	2	1	0.101	0	18	75.5	17.2	1	0.024	0	18	52.7	14.3
LC20	3	1	0.082	0	17	54.8	16.7	1	0.023	0	17	34.9	11.9
LC20	4	1	0.112	0	19	49.8	16.8	1	0.023	0	19	41.8	11.5
LC20	5	1	0.084	0	13	53.2	19.2	1	0.015	0	13	41.2	11.7
LC21	1	1	0.004	0	2	14.5	6.4	1	0.001	0	2	18.0	2.8
LC21	2	1	0.005	0	2	14.0	8.5	1	0.003	0	2	17.5	14.8
LC21	5	1	0.001	0	1	11.0	0.0	1	0.001	0	1	30.0	0.0
LC29	4	1	0.004	0	1	58.0	0.0	1	0.001	0	1	79.0	0.0
NC11	1	1	0.004	0	4	7.3	2.1	1	0.001	0	4	1.5	0.6
NC11	2	1	0.004	0	4	7.5	1.3	1	0.001	0	4	1.0	1.4
NC11	3	1	0.006	0	5	6.6	1.5	1	0.002	0	5	1.6	1.3
NC16	2	1	0.005	0	1	53.0	0.0	1	0.001	0	1	32.0	0.0
NC16	3	1	0.004	0	2	16.0	15.6	1	0.001	0	2	25.5	12.0
NC16	4	1	0.004	0	1	30.0	0.0	1	0.001	0	1	12.0	0.0
NC18	1	1	0.03	0	8	46.9	5.0	1	0.005	0	8	46.5	10.1
NC18	2	1	0.047	0	14	37.1	10.2	1	0.011	0	14	54.9	11.8
NC18	3	1	0.038	0	10	30.7	2.2	1	0.011	0	10	64.1	15.6
NC18	4	1	0.055	0	16	37.8	7.5	1	0.017	0	16	56.4	18.0
NC18	5	1	0.051	0	16	45.5	6.4	1	0.015	0	16	65.6	14.9
NF01	1	1	0.08	0	17	84.6	14.3	1	0.012	0	17	35.4	10.4
NF01	2	1	0.08	0	18	72.2	10.6	1	0.02	0	18	44.0	19.8
NF01	3	1	0.077	0	15	64.0	19.6	1	0.014	0	15	42.1	20.5
NF01	4	1	0.082	0	13	64.2	8.0	1	0.017	0	13	43.2	17.1
NF01	5	1	0.083	0	11	58.8	18.9	1	0.018	0	11	54.5	24.0
NF03	1	1	0.126	0	20	63.6	11.8	1	0.031	0	20	42.3	11.4
NF03	2	1	0.146	0	19	65.8	15.7	1	0.033	0	19	51.9	19.5
NF03	3	1	0.103	0	19	61.0	12.7	1	0.027	0	19	44.4	14.5
NF03	4	1	0.087	0	18	56.3	13.9	1	0.029	0	18	48.9	17.9
NF03	5	1	0.082	0	19	74.3	9.6	1	0.018	0	19	36.3	15.7
NF07	1	1	0.074	0	20	60.2	10.2	1	0.017	0	20	39.6	14.2
NF07	2	1	0.077	0	16	45.5	5.4	1	0.016	0	16	38.2	12.8
NF07	3	1	0.091	0	20	43.3	6.4	1	0.028	0	20	54.8	16.2
NF07	4	1	0.098	0	18	39.9	4.0	1	0.026	0	18	42.2	9.7
NF07	5	1	0.086	0	18	49.3	9.3	1	0.016	0	18	39.8	15.8
NF08	1	1	0.072	0	17	46.5	7.4	1	0.013	0	17	35.8	19.5
NF08	2	1	0.069	0	16	47.9	8.2	1	0.021	0	16	39.6	11.3
NF08	3	1	0.087	0	14	56.4	6.1	1	0.025	0	14	50.9	11.3
NF08	4	1	0.043	0	15	35.4	13.9	1	0.021	0	15	38.0	20.5
NF08	5	1	0.109	0	19	60.8	11.9	1	0.015	0	19	40.4	15.0
NF14	1	1	0.055	0	14	53.0	9.9	1	0.021	0	14	38.9	14.4
NF14	2	1	0.072	0	13	36.8	11.9	1	0.055	0	13	62.7	16.9
NF14	3	1	0.072	0	16	46.1	12.4	1	0.059	0	16	56.3	25.0
NF14	4	1	0.084	0	16	52.6	6.9	1	0.069	0	16	67.3	19.3
NF14	5	1	0.06	0	12	36.2	5.6	1	0.046	0	12	46.5	17.3
NF16	1	1	0.087	0	13	75.8	8.0	1	0.011	0	13	43.6	16.8
NF16	2	1	0.107	0	16	60.6	16.9	1	0.012	0	16	40.5	18.1
NF16	3	1	0.108	0	17	84.5	11.0	1	0.015	0	17	38.1	13.6
NF16	4	1	0.129	0	16	63.8	7.3	1	0.023	0	16	46.4	18.3
NF16	5	1	0.101	0	17	61.0	8.5	1	0.036	0	17	56.9	26.5
SF06	1	1	0.074	0	19	29.1	4.7	1	0.015	0	19	37.1	10.7
SF06	2	1	0.09	0	20	23.5	4.7	1	0.015	0	20	33.0	10.8
SF06	3	1	0.048	0	15	28.1	7.1	1	0.013	0	15	30.1	12.0
SF06	4	1	0.051	0	16	28.9	10.5	1	0.013	0	16	23.2	6.6
SF06	5	1	0.056	0	15	28.3	7.6	1	0.012	0	15	31.7	9.3
SF12	1	1	0.031	0	10	34.1	10.2	1	0.009	0	10	37.7	13.5
SF12	2	1	0.033	0	11	21.5	6.8	1	0.012	0	11	37.7	11.0
SF12	3	1	0.024	0	8	32.4	5.1	1	0.005	0	8	36.6	18.7

**Table B-4b**  
**Phytotoxicity Test Results**

sitename	pot	Stem Mass			Stem Length			Root Mass			Root Length		
		N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD
SF12	4	1	0.021	0	8	42.6	10.9	1	0.008	0	8	34.9	15.7
SF12	5	1	0.001	0	1	37.0	0.0	1	0.001	0	1	12.0	0.0
SF14	1	1	0.05	0	14	27.6	7.2	1	0.006	0	14	28.4	12.6
SF14	2	1	0.048	0	15	31.0	5.1	1	0.006	0	15	21.7	10.3
SF14	3	1	0.055	0	16	32.9	6.5	1	0.006	0	16	35.1	12.6
SF14	4	1	0.073	0	15	43.7	20.9	1	0.009	0	15	19.7	6.8
SF14	5	1	0.058	0	11	24.3	10.5	1	0.007	0	11	25.3	10.4
SF23	1	1	0.014	0	4	25.3	6.3	1	0.003	0	4	24.8	7.5
SF23	2	1	0.059	0	13	38.8	6.3	1	0.01	0	13	44.8	17.4
SF23	3	1	0.06	0	17	26.1	6.6	1	0.015	0	17	32.3	7.3
SF23	4	1	0.023	0	8	29.1	9.9	1	0.005	0	8	34.8	11.5
SF23	5	1	0.015	0	6	28.3	3.6	1	0.003	0	6	23.7	14.0
SF25	1	1	0.048	0	13	32.8	7.5	1	0.011	0	13	25.5	4.0
SF25	2	1	0.054	0	13	36.9	7.9	1	0.011	0	13	24.7	8.9
SF25	3	1	0.052	0	14	46.6	12.2	1	0.008	0	14	31.0	9.0
SF25	4	1	0.059	0	15	35.9	8.8	1	0.011	0	15	28.4	10.7
SF25	5	1	0.027	0	10	51.5	8.1	1	0.006	0	10	28.9	9.1
SF27	1	1	0.087	0	20	42.0	7.1	1	0.03	0	20	73.2	11.8
SF27	2	1	0.08	0	19	49.9	5.3	1	0.028	0	19	65.7	15.1
SF27	3	1	0.083	0	19	50.4	9.8	1	0.027	0	19	64.1	14.4
SF27	4	1	0.085	0	20	53.4	8.2	1	0.032	0	20	66.7	19.2
SF27	5	1	0.08	0	20	44.2	4.7	1	0.03	0	20	68.5	16.3
SF36	1	1	0.096	0	20	41.0	4.2	1	0.028	0	20	48.3	12.0
SF36	2	1	0.07	0	17	34.1	5.8	1	0.023	0	17	53.1	10.3
SF36	3	1	0.07	0	18	27.3	4.8	1	0.023	0	18	47.7	12.4
SF36	4	1	0.083	0	19	32.8	6.0	1	0.092	0	19	53.4	12.9
SF36	5	1	0.076	0	20	34.2	7.1	1	0.029	0	20	48.0	16.1
SF39	1	1	0.109	0	20	35.9	5.8	1	0.033	0	20	72.0	22.9
SF39	2	1	0.078	0	16	57.8	9.0	1	0.025	0	16	51.8	12.8
SF39	3	1	0.082	0	19	67.6	9.7	1	0.022	0	19	46.9	17.4
SF39	4	1	0.17	0	14	53.0	8.0	1	0.065	0	14	63.4	21.9
SF39	5	0	NA	0	17	50.5	10.4	0	NA	0	17	58.9	20.6
SF55	1	1	0.011	0	18	30.8	6.8	1	0.003	0	18	41.1	14.4
SF55	2	1	0.006	0	18	30.2	7.2	1	0.001	0	18	36.9	12.7
SF55	3	1	0.01	0	19	33.6	4.5	1	0.002	0	19	36.8	10.6
SF55	4	1	0.005	0	18	31.0	6.3	1	0.001	0	18	42.7	9.9
SF55	5	1	0.009	0	17	33.7	5.6	1	0.003	0	17	42.6	9.8



**Table B-4c**  
**Phytotoxicity Test Results**

sitename	pot	Stem Mass			Stem Length			Root Mass			Root Length		
		N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD
CC01	1	1	0.065	0	16	49.31	8.27	1	0.014	0	16	23.25	9.35
CC01	2	1	0.039	0	8	54.13	11.41	1	0.005	0	8	19.00	4.78
CC01	3	1	0.016	0	3	43.00	5.29	1	0.003	0	3	18.00	16.52
CC01	4	1	0.017	0	4	48.00	4.32	1	0.002	0	4	19.75	4.11
CC01	5	1	0.021	0	6	53.17	5.15	1	0.004	0	6	15.50	6.35
CC02	1	1	0.1	0	19	53.53	13.05	1	0.019	0	19	37.79	14.67
CC02	2	1	0.081	0	16	49.00	10.66	1	0.010	0	16	35.19	13.43
CC02	3	1	0.069	0	17	51.35	10.11	1	0.010	0	17	32.88	16.42
CC02	4	1	0.078	0	15	54.67	9.68	1	0.011	0	15	29.67	16.71
CC02	5	1	0.06	0	19	47.79	12.58	1	0.018	0	19	28.11	12.52
CC04	1	1	0.013	0	10	11.40	2.12	1	0.002	0	10	4.70	1.34
CC04	2	1	0.022	0	11	12.27	2.65	1	0.002	0	11	5.73	2.83
CC04	3	1	0.018	0	9	12.22	1.86	1	0.002	0	9	3.89	1.17
CC04	4	1	0.014	0	10	11.40	2.67	1	0.002	0	10	5.10	1.10
CC04	5	1	0.011	0	6	11.50	2.17	1	0.002	0	6	3.83	0.75
CC08	1	1	0.005	0	3	8.00	3.46	1	0.002	0	3	4.33	2.08
CC08	2	1	0.008	0	5	8.20	1.79	1	0.002	0	5	4.60	1.14
CC08	3	1	0.007	0	5	8.80	2.28	1	0.000	0	5	3.40	1.14
CC08	4	1	0.002	0	0	NA	0.00	1	0.000	0	0	NA	0.00
CC08	5	1	0.009	0	7	6.29	3.04	1	0.000	0	7	3.86	1.77
CC09	1	1	0.017	0	9	11.56	2.07	1	0.002	0	9	2.33	1.50
CC09	2	1	0.009	0	5	10.00	1.73	1	0.001	0	5	1.60	1.67
CC09	3	1	0.011	0	7	11.00	1.15	1	0.003	0	7	4.14	3.24
CC09	4	1	0.017	0	9	11.67	2.18	1	0.001	0	9	2.89	1.36
CC09	5	1	0.013	0	8	11.00	1.60	1	0.001	0	8	2.25	1.91
LC03	3	1	0.004	0	1	25.00	0.00	1	0.001	0	1	14.00	0.00
LC04	1	1	0.058	0	14	43.86	8.08	1	0.011	0	14	36.43	12.78
LC04	2	1	0.055	0	17	42.18	10.30	1	0.009	0	17	34.59	16.72
LC04	3	1	0.041	0	14	38.00	15.07	1	0.007	0	14	17.86	7.85
LC04	4	1	0.028	0	8	41.75	11.90	1	0.005	0	8	28.25	16.92
LC04	5	1	0.042	0	10	38.80	10.25	1	0.006	0	10	27.10	14.56
LC08	1	1	0.02	0	11	14.00	3.61	1	0.006	0	11	9.82	5.31
LC08	2	1	0.022	0	9	13.22	1.56	1	0.003	0	9	11.11	3.52
LC08	3	1	0.018	0	9	12.33	3.39	1	0.003	0	9	11.44	5.15
LC08	4	1	0.011	0	7	14.14	3.18	1	0.002	0	7	12.71	3.68
LC08	5	1	0.03	0	12	15.58	4.89	1	0.002	0	12	10.42	2.61
LC10	1	1	0.016	0	3	54.33	8.96	1	0.002	0	3	23.33	3.21
LC10	2	1	0.006	0	2	33.50	12.02	1	0.002	0	2	28.00	11.31
LC10	3	1	0.01	0	2	52.00	11.31	1	0.002	0	2	16.50	0.71
LC10	4	1	0.018	0	4	40.75	16.40	1	0.007	0	4	19.50	17.46
LC14	1	1	0.105	0	20	55.05	8.90	1	0.043	0	20	74.95	19.85
LC14	2	1	0.097	0	16	65.63	14.10	1	0.041	0	16	77.81	41.35
LC14	3	1	0.079	0	16	69.13	11.99	1	0.019	0	16	58.56	21.96
LC14	4	1	0.09	0	18	62.11	8.41	1	0.026	0	18	64.61	17.92
LC14	5	1	0.103	0	20	73.80	10.14	1	0.036	0	20	50.85	8.90
LC20	1	1	0.054	0	17	50.94	16.01	1	0.020	0	17	38.18	14.28
LC20	2	1	0.031	0	10	49.10	17.96	1	0.012	0	10	31.20	16.00
LC20	3	1	0.048	0	14	51.29	15.39	1	0.020	0	14	40.00	15.22
LC20	4	1	0.044	0	16	34.94	15.96	1	0.011	0	16	28.81	16.48
LC20	5	1	0.035	0	10	56.30	9.97	1	0.014	0	10	44.50	4.97
LC21	2	1	0.001	0	1	9.00	0.00	1	0.001	0	1	11.00	0.00
LC21	3	1	0.005	0	2	21.00	18.38	1	0.001	0	2	9.50	4.95
LC29	1	1	0.02	0	6	52.83	8.11	1	0.003	0	6	59.00	24.79
LC29	2	1	0.006	0	2	52.00	11.31	1	0.001	0	2	59.00	5.66
LC29	3	1	0.006	0	2	42.50	6.36	1	0.001	0	2	47.50	4.95
NC11	1	1	0.007	0	4	7.50	1.91	1	0.002	0	4	4.00	1.41
NC11	2	1	0.013	0	8	10.50	2.14	1	0.001	0	8	4.63	3.02
NC11	3	1	0.002	0	4	7.00	1.41	1	0.001	0	4	4.50	3.32

**Table B-4c**  
**Phytotoxicity Test Results**

sitename	pot	Stem Mass			Stem Length			Root Mass			Root Length		
		N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD
NC11	4	1	0.009	0	6	9.83	1.94	1	0.001	0	6	4.00	2.00
NC11	5	1	0.007	0	7	11.14	5.08	1	0.003	0	7	4.00	1.41
NC16	2	1	0.005	0	2	48.00	1.41	1	0.001	0	2	30.50	10.61
NC18	1	1	0.008	0	3	55.00	7.55	1	0.001	0	3	35.33	8.74
NC18	2	1	0.003	0	1	23.00	0.00	1	0.001	0	1	26.00	0.00
NC18	3	1	0.002	0	2	21.50	3.54	1	0.001	0	2	30.50	17.68
NC18	4	1	0.003	0	2	43.00	26.87	1	0.001	0	2	49.00	8.49
NC18	5	1	0.004	0	1	81.00	0.00	1	0.001	0	1	90.00	0.00
NF01	1	1	0.12	0	19	88.74	11.46	1	0.010	0	19	49.79	19.93
NF01	2	1	0.128	0	17	83.94	12.70	1	0.013	0	17	42.06	19.29
NF01	3	1	0.103	0	19	80.89	17.87	1	0.011	0	19	40.95	15.93
NF01	4	1	0.11	0	18	77.17	21.59	1	0.021	0	18	37.72	17.36
NF01	5	1	0.089	0	16	81.63	8.83	1	0.002	0	15	49.87	15.12
NF03	1	1	0.124	0	20	70.90	9.55	1	0.016	0	20	59.30	33.32
NF03	2	1	0.115	0	20	65.85	17.35	1	0.035	0	20	95.95	38.09
NF03	3	1	0.116	0	17	78.00	13.18	1	0.030	0	17	85.76	22.53
NF03	4	1	0.079	0	17	69.65	15.94	1	0.036	0	17	92.35	20.49
NF03	5	1	0.131	0	20	89.85	15.38	1	0.041	0	20	95.00	26.48
NF07	1	1	0.102	0	19	60.00	10.56	1	0.021	0	19	39.63	8.07
NF07	2	1	0.111	0	19	60.42	7.33	1	0.018	0	19	47.21	9.32
NF07	3	1	0.085	0	15	47.27	10.35	1	0.025	0	15	42.33	15.53
NF07	4	1	0.1	0	17	58.24	16.80	1	0.019	0	17	37.94	13.06
NF07	5	1	0.092	0	18	59.67	13.02	1	0.019	0	18	45.72	11.49
NF08	1	1	0.138	0	20	60.40	16.23	1	0.059	0	20	98.50	29.98
NF08	2	1	0.095	0	15	68.13	13.10	1	0.031	0	15	100.00	36.53
NF08	3	1	0.124	0	17	70.12	21.01	1	0.036	0	17	76.24	26.24
NF08	4	1	0.094	0	17	67.71	20.39	1	0.024	0	17	67.00	23.72
NF08	5	1	0.089	0	18	76.33	10.10	1	0.036	0	18	79.44	17.59
NF14	1	1	0.056	0	10	49.40	13.99	1	0.029	0	10	26.10	12.84
NF14	2	1	0.061	0	12	51.33	15.31	1	0.034	0	12	34.17	17.52
NF14	3	1	0.041	0	11	51.27	9.97	1	0.029	0	11	29.27	9.03
NF14	4	1	0.052	0	15	56.87	16.06	1	0.037	0	15	27.27	14.81
NF14	5	1	0.051	0	11	65.64	15.84	1	0.043	0	11	42.27	31.87
NF16	1	1	0.132	0	20	78.50	14.01	1	0.018	0	20	37.75	12.80
NF16	2	1	0.106	0	18	71.89	15.55	1	0.013	0	18	42.78	17.90
NF16	3	1	0.096	0	18	83.89	12.39	1	0.009	0	18	36.61	9.73
NF16	4	1	0.139	0	16	81.25	15.98	1	0.012	0	16	49.25	20.19
NF16	5	1	0.132	0	16	68.13	8.99	1	0.018	0	16	54.44	21.03
SF06	1	1	0.059	0	18	49.67	8.17	1	0.014	0	18	42.89	13.98
SF06	2	1	0.041	0	18	42.78	9.92	1	0.009	0	18	31.78	11.25
SF06	3	1	0.036	0	14	46.43	12.69	1	0.007	0	14	32.14	14.65
SF06	4	1	0.064	0	20	35.40	10.14	1	0.028	0	20	45.25	12.65
SF06	5	1	0.031	0	14	42.93	9.47	1	0.008	0	14	36.71	9.37
SF12	1	1	0.034	0	14	34.50	11.13	1	0.008	0	14	16.93	7.22
SF12	2	1	0.035	0	17	30.47	12.83	1	0.008	0	17	19.35	9.74
SF12	3	1	0.009	0	11	37.00	10.80	1	0.039	0	11	21.91	6.73
SF12	4	1	0.059	0	14	40.14	14.66	1	0.013	0	14	28.71	19.39
SF12	5	1	0.056	0	14	31.00	9.32	1	0.010	0	14	17.86	8.73
SF14	1	1	0.061	0	16	35.88	7.74	1	0.016	0	16	15.31	7.15
SF14	2	1	0.055	0	15	37.67	10.76	1	0.008	0	15	17.13	5.19
SF14	3	1	0.068	0	18	37.17	6.02	1	0.023	0	18	15.22	5.44
SF14	4	1	0.044	0	20	40.10	8.64	1	0.012	0	20	22.05	10.50
SF14	5	1	0.026	0	20	45.05	7.80	1	0.005	0	20	19.55	12.44
SF23	1	1	0.049	0	18	41.33	9.37	1	0.026	0	18	41.00	11.67
SF23	2	1	0.052	0	18	33.22	8.19	1	0.034	0	18	42.78	20.12
SF23	3	1	0.041	0	13	36.77	6.38	1	0.028	0	13	59.77	26.83
SF23	4	1	0.043	0	15	40.00	11.45	1	0.024	0	15	46.47	15.08
SF23	5	1	0.06	0	18	39.89	10.24	1	0.030	0	18	36.33	13.12
SF25	1	1	0.061	0	18	53.39	11.66	1	0.011	0	18	21.83	5.50

**Table B-4c**  
**Phytotoxicity Test Results**

sitename	pot	Stem Mass			Stem Length			Root Mass			Root Length		
		N	Mean	SD	N	Mean	SD	N	Mean	SD	N	Mean	SD
SF25	2	1	0.05	0	17	46.47	10.24	1	0.009	0	17	23.59	7.43
SF25	3	1	0.043	0	16	48.00	12.75	1	0.010	0	16	22.94	6.30
SF25	4	1	0.061	0	18	46.06	11.26	1	0.013	0	18	26.83	10.35
SF25	5	1	0.063	0	17	35.06	13.71	1	0.015	0	17	27.29	12.41
SF27	1	1	0.071	0	19	54.21	10.01	1	0.029	0	19	85.42	16.89
SF27	2	1	0.057	0	17	55.47	12.04	1	0.036	0	17	71.00	10.67
SF27	3	1	0.058	0	16	50.19	13.10	1	0.025	0	16	62.25	8.84
SF27	4	1	0.082	0	17	56.71	18.07	1	0.039	0	17	77.71	32.03
SF27	5	1	0.077	0	17	57.53	11.64	1	0.036	0	17	78.94	13.34
SF36	1	1	0.07	0	18	43.28	11.41	1	0.037	0	18	48.78	15.33
SF36	2	1	0.044	0	16	41.44	16.06	1	0.013	0	16	46.50	22.01
SF36	3	1	0.054	0	19	44.84	10.78	1	0.020	0	19	46.26	14.16
SF36	4	1	0.082	0	19	37.74	7.59	1	0.031	0	19	55.16	16.44
SF36	5	1	0.058	0	17	45.00	9.18	1	0.025	0	17	55.06	10.48
SF39	1	1	0.06	0	16	51.25	18.51	1	0.019	0	16	41.19	12.86
SF39	2	1	0.095	0	19	47.58	10.98	1	0.045	0	19	62.05	39.84
SF39	3	1	0.102	0	17	50.00	14.09	1	0.041	0	17	57.06	30.94
SF39	4	1	0.106	0	20	49.80	10.21	1	0.039	0	20	50.75	14.51
SF39	5	1	0.1	0	18	52.78	9.75	1	0.039	0	18	45.89	18.06
SF55	1	1	0.045	0	18	32.11	8.44	1	0.017	0	18	37.94	8.98
SF55	2	1	0.049	0	16	27.13	4.79	1	0.018	0	16	25.31	6.89
SF55	3	1	0.044	0	18	28.11	6.36	1	0.016	0	18	27.28	5.85
SF55	4	1	0.042	0	14	28.21	10.02	1	0.010	0	14	31.71	12.25
SF55	5	1	0.045	0	18	30.61	9.36	1	0.019	0	18	39.61	8.25

**Table B-4d**  
**Phytotoxicity Test Results**

sitename	Pot	Branch Growth (mm)	Root Growth (mm)	Leaf Number (n)	Root Number (n)	Leaf Weight (g)
LC01	1	204	266	7	6	3.209
LC01	2	161	111	4	4	2.907
LC01	3	106	113	4	17	2.367
LC01	4	212	216	4	2	5.274
LC01	5	248	248	8	3	6.574
LC03	1	146	34	5	15	1.86
LC03	2	197	363	7	2	4.917
LC03	3	174	264	8	2	2.805
LC03	4	107	153	3	3	1.89
LC03	5	130	153	3	13	5.038
LC04	1	236	133	7	4	5.227
LC04	2	185	149	5	2	4.45
LC04	3	236	31	5	8	5.745
LC04	4	225	158	5	6	4.275
LC04	5	232	190	10	9	6.5
LC07	1	185	526	3	7	4.209
LC07	2	217	123	4	3	3.819
LC07	3	148	196	3	5	4.183
LC07	4	223	109	10	3	9.647
LC07	5	205	121	5	8	3.1
LC08	1	72	132	3	6	1.927
LC08	2	204	120	5	4	4.16
LC08	3	89	190	4	16	4.538
LC08	4	112	118	5	2	1.982
LC08	5	152	99	5	14	3.706
LC10	1	174	217	6	9	2.015
LC10	2	150	-17	8	1	1.581
LC10	3	52	121	3	2	2.374
LC10	4	-17	0	0	0	0.643
LC10	5	163	-38	3	-1	2.711
LC13	1	126	126	1	4	1.416
LC13	2	220	241	9	3	4.682
LC13	3	153	149	3	5	3.334
LC13	4	162	218	7	6	2.174
LC13	5	154	99	3	1	2.385
LC14	1	250	145	5	4	3.778
LC14	2	319	169	10	1	8.339
LC14	3	222	61	7	4	4.998
LC14	4	253	99	8	9	7.776
LC14	5	255	189	9	11	7.19
LC20	1	219	187	5	4	7.675
LC20	2	285	235	11	4	8.275
LC20	3	285	79	10	2	5.385
LC20	4	138	148	4	12	2.572
LC20	5	153	153	4	5	2.896
LC21	1	225	275	3	4	3.782
LC21	2	161	277	5	7	4.656
LC21	3	190	167	5	9	3.458
LC21	4	59	173	0	6	1.321
LC21	5	177	126	9	6	4.285
LC29	1	295	307	8	1	10.231
LC29	2	40	-21	0	-1	0.585
LC29	3	250	135	6	4	4.118
LC29	4	97	83	2	4	1.314
LC29	5	209	177	4	4	4.454
LC30	1	139	332	6	11	-
LC30	2	195	231	8	4	5.089
LC30	3	195	229	4	3	3.366
LC30	4	137	204	6	8	4.385
LC30	5	157	86	5	2	1.847
NC11	1	38	-29	0	-10	1.703

**Table B-4d**  
**Phytotoxicity Test Results**

sitename	Pot	Branch Growth (mm)	Root Growth (mm)	Leaf Number (n)	Root Number (n)	Leaf Weight (g)
NC11	2	61	-30	4	-1	0.616
NC11	3	33	-42	1	-1	0.698
NC11	4	66	-12	0	-1	0.971
NC11	5	86	0	1	0	2.082
NC14	1	-57	-61	0	0	0.929
NC14	2	68	-64	-1	-3	0.36
NC14	3	47	0	0	0	1.129
NC14	4	24	40	1	0	0.382
NC14	5	98	-2	4	0	0.841
NC16	1	178	183	1	3	3.776
NC16	2	95	174	3	6	1.815
NC16	3	284	260	7	5	5.398
NC16	4	223	156	7	6	5.502
NC16	5	336	190	9	11	8.299
NC18	1	209	131	3	9	3.809
NC18	2	248	139	5	4	5.01
NC18	3	335	122	8	13	6.793
NC18	4	261	134	6	11	5.396
NC18	5	287	-	5	8	7.224
NF01	1	223	254	7	2	5.564
NF01	2	243	134	6	10	4.244
NF01	3	221	2	4	3	3.625
NF01	4	355	92	7	6	10.029
NF01	5	266	174	6	7	7.158
NF07	1	177	20	6	12	3.203
NF07	2	223	122	5	8	4.946
NF07	3	248	145	29	10	6.997
NF07	4	253	128	5	9	6.553
NF07	5	238	193	7	45	7.034
NF16	1	336	136	8	-4	7.958
NF16	2	256	247	6	8	7.426
NF16	3	308	95	5	5	8.857
NF16	4	224	300	5	9	3.573
NF16	5	288	101	7	1	5
SF12	1	218	123	5	2	8.198
SF12	2	244	185	5	11	5.033
SF12	3	163	109	3	8	3.274
SF12	4	189	95	1	8	3.116
SF12	5	272	94	9	7	5.308
SF14	1	226	144	3	7	5.411
SF14	2	193	47	8	3	6.015
SF14	3	127	119	3	3	4.147
SF14	4	237	41	5	7	6.526
SF14	5	223	100	2	8	5.861
SF25	1	247	117	5	1	4.862
SF25	2	227	133	4	0	3.697
SF25	3	281	126	7	10	9.542
SF25	4	248	149	10	4	5.195
SF25	5	194	154	5	24	5.164
SF27	1	296	140	5	2	5.641
SF27	2	131	115	10	6	4.802
SF27	3	71	-	4	36	1.921
SF27	4	285	132	9	19	8.175
SF27	5	191	111	4	6	3.463
SF36	1	213	149	6	10	4.971
SF36	2	231	-	8	8	4.382
SF36	3	214	110	10	5	7.791
SF36	4	77	91	3	19	1.909
SF36	5	258	102	5	2	4.311