

willow competition experiment - Osbornes ponds, willow data

Finished Blocks
I + II
1140 h

	Block	Elev (m)	row within block	Willow stage	treatment	willow random #	Willow height (cm) 10 ¹¹ AUG 2010	Willow # leaves 210 AUG 2010	(mm) Willow stem diameter 10 ¹¹ AUG 2010
1	I	0	1	seedling	alone	79	No plant	.	.
2	I	0	8	tall cutting	alone	53	102.4	160	12.7
3	I	0	9	seedling	alone	56	No plant	.	.
4	I	0	10	tall cutting	alone	51	100.2	246	9.2
5	I	0	11	short cutting	alone	69	52.7	59	10.0
6	I	0	12	short cutting	alone	60	90.9	61	10.2
7	I	0.25	1	tall cutting	high density sawgrass	31	81.5	157	12.2
8	I	0.25	2	seedling	high density sawgrass	39	No plant	.	.
9	I	0.25	3	seedling	low density sawgrass	8	14.7	8	1.8
10	I	0.25	4	seedling	alone	41	6.2	2	1.3
11	I	0.25	5	short cutting	high density sawgrass	65	81.2	113	14.9
12	I	0.25	6	seedling	alone	59	DEAD.	.	.
13	I	0.25	7	short cutting	low density sawgrass	14	73.6	190	10.0
14	I	0.25	8	tall cutting	alone	57	86.1	160	8.3
15	I	0.25	9	short cutting	alone	27	74.4	158	15.1
16	I	0.25	10	short cutting	alone	57	70.8	113	9.9
17	I	0.25	11	tall cutting	low density sawgrass	26	94.6	44	10.3
18	I	0.25	12	tall cutting	alone	62	75.3	131	8.4
19	I	0.38	1	short cutting	low density sawgrass	8	59.6	157	14.1
20	I	0.38	2	tall cutting	low density sawgrass	75	95.4	57	9.2
21	I	0.38	3	seedling	low density sawgrass	43	No plant	.	.
22	I	0.38	4	seedling	high density sawgrass	49	16.5	9	2.9
23	I	0.38	5	tall cutting	alone	20	70.4	69	13.3
24	I	0.38	6	short cutting	alone	80	61.3	95	12.0

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willow competition experiment - Osbornes ponds, willow data

	Block	Elev (m)	row within block	Willow stage	treatment	willow random #	Willow height (cm) 10" AUG 2010	Willow # leaves 210" AUG 2010	(mm) Willow stem diameter 10" AUG 2010
25	I	0.38	7	tall cutting	high density sawgrass	59	58.5	78	8.2
26	I	0.38	8	short cutting	high density sawgrass	70	51.1	65	11.4
27	I	0.38	9	short cutting	alone	73	46.6	41	8.6
28	I	0.38	10	seedling	alone	19	No plant	62	
29	I	0.38	11	seedling	alone	3	5.1	6	2.1
30	I	0.38	12	tall cutting	alone	39	57.5	98	12.1
31	I	0.5	1	tall cutting	alone	76	55.8	56	11.29
32	I	0.5	4	seedling	alone	78	13.5	22	2.35
33	I	0.5	6	short cutting	alone	75	61.7	91	8.77
34	I	0.5	7	tall cutting	alone	46	81.3	117	9.31
35	I	0.5	9	short cutting	alone	66	40.2	112	7.20
36	I	0.5	12	seedling	alone	27	20.4	22	3.41
37	II	0	1	short cutting	alone	1	78.1	64	12.5
38	II	0	2	tall cutting	alone	4	92.3	176	9.4
39	II	0	5	tall cutting	alone	42	100.4	150	8.8
40	II	0	10	seedling	alone	30	No plant		
41	II	0	11	seedling	alone	65	No plant		
42	II	0	12	short cutting	alone	68	58.4	75	9.9
43	II	0.25	1	tall cutting	low density sawgrass	68	77.4	203	11.1
44	II	0.25	2	short cutting	alone	41	79.5	175	12.2
45	II	0.25	3	seedling	low density sawgrass	69	7.5	4	1.2
46	II	0.25	4	tall cutting	high density sawgrass	25	80.3	12	9.0
47	II	0.25	5	seedling	alone	22	No plant - DEAD		
48	II	0.25	6	seedling	alone	38	No plant		

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d.c.

Willow competition experiment - Osborne's ponds, willow data

	Block	Elev (m)	row within block	Willow stage	treatment	willow random #	Willow height (cm) 10 AUG 2010	Willow # leaves 210 AUG 2010	Willow stem diameter 10 AUG 2010 (mm)
49	II	0.25	7	short cutting	alone	61	36.4	92	4.9
50	II	0.25	8	tall cutting	alone	2	67.4	97	13.6
51	II	0.25	9	seedling	high density sawgrass	37	No plant		
52	II	0.25	10	tall cutting	alone	22	74.3	59	10.2
53	II	0.25	11	short cutting	high density sawgrass	44	69.8	118	14.5
54	II	0.25	12	short cutting	low density sawgrass	74	84.5	56	5.8
55	II	0.38	1	tall cutting	low density sawgrass	56	52.8	23	5.58
56	II	0.38	2	short cutting	alone	7	77.4	134	10.76
57	II	0.38	3	tall cutting	alone	9	72.8	42	12.38
58	II	0.38	4	short cutting	alone	22	64.4	129	13.89
59	II	0.38	5	short cutting	low density sawgrass	25	81.2	74	11.61
60	II	0.38	6	seedling	low density sawgrass	70	4.6	2	0.57
61	II	0.38	7	tall cutting	alone	12	58.1	35	7.85
62	II	0.38	8	seedling	high density sawgrass	68	No plant		
63	II	0.38	9	seedling	alone	52	No plant		
64	II	0.38	10	short cutting	high density sawgrass	2	52.2	38	11.23
65	II	0.38	11	tall cutting	high density sawgrass	65	111.3	44	11.33
66	II	0.38	12	seedling	alone	35	No plant		
67	II	0.5	2	seedling	alone	14	24.0	21	2.43
68	II	0.5	3	tall cutting	alone	36	87.2	133	13.57
69	II	0.5	4	short cutting	alone	19	45.7	150	7.90
70	II	0.5	6	seedling	alone	62	15.3	12	2.24
71	II	0.5	7	short cutting	alone	47	51.1	26	11.06
72	II	0.5	12	tall cutting	alone	23	57.3	128	13.28

d.c.

willow competition experiment - Osbornes ponds, willow data

	Block	Elev (m)	row within block	Willow stage	treatment	willow random #	Willow height (cm) 10 AUG 2010	Willow # leaves 210 AUG 2010	(mm) Willow stem diameter 10 AUG 2010
73	III	0	3	seedling	alone	51	No plant	.	.
74	III	0	7	tall cutting	alone	37	126.3	279	10.79
75	III	0	8	tall cutting	alone	5	117.2	705	10.93
76	III	0	9	short cutting	alone	3	114.1	196	9.33
77	III	0	11	seedling	alone	17	64.2	37	3.41
78	III	0	12	short cutting	alone	33	126.2	221	14.15
79	III	0.25	1	tall cutting	alone	44	92.2	108	5.89
80	III	0.25	2	short cutting	low density sawgrass	56	67.1	146	5.17
81	III	0.25	3	seedling	low density sawgrass	71	No plant	.	.
82	III	0.25	4	seedling	alone	61	No plant	.	.
83	III	0.25	5	short cutting	high density sawgrass	34	71.8	114	8.92
84	III	0.25	6	short cutting	alone	23	80.3	115	12.88
85	III	0.25	7	seedling	high density sawgrass	28	25.1	10	1.89
86	III	0.25	8	tall cutting	low density sawgrass	16	74.9	58	7.86
87	III	0.25	9	tall cutting	high density sawgrass	72	84.6	42	10.03
88	III	0.25	10	short cutting	alone	35	90.1	113	12.12
89	III	0.25	11	tall cutting	alone	24	91.2	115	13.09
90	III	0.25	12	seedling	alone	63	28.2	4	0.76
91	III	0.38	1	short cutting	low density sawgrass	17	80.3	285	16.03
92	III	0.38	2	tall cutting	high density sawgrass	78	81.1	192	9.83
93	III	0.38	3	tall cutting	alone	27	81.4	239	9.34
94	III	0.38	4	seedling	high density sawgrass	26	DEAD	—	.
95	III	0.38	5	short cutting	high density sawgrass	42	81.1	72	7.65
96	III	0.38	6	short cutting	alone	48	75.6	207	9.24

buried in mud

plant prostrate 1/2 broken

plant prostrate

plant prostrate

J.C.

willow competition experiment - Osbornes ponds, willow data

Started Block II
1300 h

	Block	Elev (m)	row within block	Willow stage	treatment	willow random #	Willow height (cm) 10 AUG 2010	Willow # leaves 210 AUG 2010	(mm) Willow stem diameter 10 AUG 2010
97	III	0.38	7	seedling	alone	40	No plant	.	.
98	III	0.38	8	short cutting	alone	38	91.4	152	10.31
99	III	0.38	9	seedling	alone	36	No plant	.	.
100	III	0.38	10	seedling	low density sawgrass	42	No plant	.	.
101	III	0.38	11	tall cutting	low density sawgrass	58	99.2	128	12.42
102	III	0.38	12	tall cutting	alone	13	89.2	94	14.71
103	III	0.5	1	tall cutting	alone	79	DEAD	.	.
104	III	0.5	3	seedling	alone	55	No plant	.	.
105	III	0.5	5	seedling	alone	6	No plant	.	.
106	III	0.5	7	short cutting	alone	64	68.4	126	16.34
107	III	0.5	8	short cutting	alone	78	52.1	111	6.46
108	III	0.5	10	tall cutting	alone	66	80.6	272	12.76
109	IV	0	1	seedling	alone	13	109.0	126	6.00
110	IV	0	5	short cutting	alone	63	30.4	53	9.44
111	IV	0	8	tall cutting	alone	63	116.4	776	10.28
112	IV	0	9	short cutting	alone	58	42.2	22	8.39
113	IV	0	10	tall cutting	alone	80	107.3	222	10.68
114	IV	0	11	seedling	alone	10	40.6	71	3.92
115	IV	0.25	1	tall cutting	alone	30	64.6	134	8.23
116	IV	0.25	2	tall cutting	high density sawgrass	38	95.9	154	9.38
117	IV	0.25	3	seedling	alone	64	No plant	.	.
118	IV	0.25	4	short cutting	alone	77	No plant	.	.
119	IV	0.25	5	short cutting	alone	20	90.8	177	10.38
120	IV	0.25	6	seedling	high density sawgrass	74	No plant	.	.

plant leaning on ground

plant prostrate

plant prostrate

willow competition experiment - Osbornes ponds, willow data

	Block	Elev (m)	row within block	Willow stage	treatment	willow random #	Willow height (cm) 10 AUG 2010	Willow # leaves 210 AUG 2010	Willow stem diameter 10 AUG 2010
121	IV	0.25	7	tall cutting	low density sawgrass	8	57.4	72	9.31
122	IV	0.25	8	seedling	low density sawgrass	54	No plant		
123	IV	0.25	9	short cutting	low density sawgrass	43	52.9	66	3.96
124	IV	0.25	10	seedling	alone	66	No plant		
125	IV	0.25	11	short cutting	high density sawgrass	31	95.2	137	13.16
126	IV	0.25	12	tall cutting	alone	35	99.4	175	13.05
127	IV	0.38	1	tall cutting	low density sawgrass	18	71.6	237	12.49
128	IV	0.38	2	short cutting	alone	15	67.8	179	9.25
129	IV	0.38	3	seedling	alone	23	No plant		
130	IV	0.38	4	tall cutting	high density sawgrass	70	66.4	86	6.62
131	IV	0.38	5	tall cutting	alone	69	84.9	265	11.01
132	IV	0.38	6	seedling	high density sawgrass	33	No plant		
133	IV	0.38	7	tall cutting	alone	73	60.3	121	9.29
134	IV	0.38	8	short cutting	alone	46	70.52	36	11.13
135	IV	0.38	9	short cutting	high density sawgrass	5	49.4	165	11.43
136	IV	0.38	10	seedling	alone	9	No plant		
137	IV	0.38	11	short cutting	low density sawgrass	29	71.1	118	13.46
138	IV	0.38	12	seedling	low density sawgrass	31	No plant		
139	IV	0.5	2	seedling	alone	50	No plant		
140	IV	0.5	3	short cutting	alone	62	46.2	299	10.35
141	IV	0.5	4	short cutting	alone	4	42.3	78	8.25
142	IV	0.5	5	tall cutting	alone	77	65.2	133	11.17
143	IV	0.5	8	seedling	alone	4	No plant		
144	IV	0.5	11	tall cutting	alone	50	97.2	316	14.95

plant low to ground

plant prostrate

willow competition experiment - Osbornes ponds, willow data

	Block	Elev (m)	row within block	Willow stage	treatment	willow random #	Willow height (cm) 10 AUG 2010	Willow # leaves 210 AUG 2010	(mm) Willow stem diameter 10 AUG 2010
145	V	0	2	short cutting	alone	10	128.8	507	13.8
146	V	0	3	seedling	alone	48	No plant		
147	V	0	4	tall cutting	alone	33	57.3	1	9.3
148	V	0	5	tall cutting	alone	34	68.3	51	12.0
149	V	0	6	seedling	alone	58	40.3	5	4.6
150	V	0	8	short cutting	alone	59	68.2	84	7.4
151	V	0.25	1	short cutting	alone	67	39.4	70	5.95
152	V	0.25	2	seedling	high density sawgrass	21	No plant		
153	V	0.25	3	seedling	alone	32	No plant		
154	V	0.25	4	tall cutting	low density sawgrass	40	64.6	185	15.62
155	V	0.25	5	short cutting	high density sawgrass	18	74.7	153	11.22
156	V	0.25	6	tall cutting	alone	21	80.4	60	12.96
157	V	0.25	7	short cutting	alone	55	60.2	88	6.59
158	V	0.25	8	tall cutting	high density sawgrass	3	76.1	55	11.22
159	V	0.25	9	tall cutting	alone	71	71.8	77	10.83
160	V	0.25	10	seedling	alone	24	11.4	8	1.90
161	V	0.25	11	seedling	low density sawgrass	11	13.7	8	1.6
162	V	0.25	12	short cutting	low density sawgrass	13	116.4	171	13.76
163	V	0.38	1	short cutting	alone	9	75.8	42	9.27
164	V	0.38	2	short cutting	alone	50	47.2	100	9.26
165	V	0.38	3	tall cutting	high density sawgrass	32	67.4	150	10.25
166	V	0.38	4	tall cutting	alone	67	61.4	100	8.02
167	V	0.38	5	short cutting	low density sawgrass	76	34.9	23	5.62
168	V	0.38	6	seedling	low density sawgrass	45	No plant		

plant prostrate

barely alive in poor condition

willow competition experiment - Osbornes ponds, willow data

	Block	Elev (m)	row within block	Willow stage	treatment	willow random #	Willow height (cm) 10 AUG 2010	Willow # leaves 210 AUG 2010	Willow stem diameter 10 AUG 2010
169	V	0.38	7	seedling	alone	12	No plant		
170	V	0.38	8	tall cutting	low density sawgrass	60	79.3	90	10.82
171	V	0.38	9	seedling	alone	7	No plant		
172	V	0.38	10	short cutting	high density sawgrass	24	79.6	94	11.28
173	V	0.38	11	tall cutting	alone	28	81.8	77	12.24
174	V	0.38	12	seedling	high density sawgrass	75	No plant		
175	V	0.5	2	short cutting	alone	79	68.4	147	10.78
176	V	0.5	3	seedling	alone	16	11.2	34	2.76
177	V	0.5	4	tall cutting	alone	6	65.1	102	9.41
178	V	0.5	7	tall cutting	alone	48	63.2	67	8.81
179	V	0.5	8	seedling	alone	18	11.5	18	2.26
180	V	0.5	9	short cutting	alone	49	49.1	81	11.7
181	VI	0	1	seedling	alone	47	50.4	30	6.3
182	VI	0	3	tall cutting	alone	7	111.8	408	10.5
183	VI	0	4	short cutting	alone	71	53.2	100	6.2
184	VI	0	10	short cutting	alone	16	109.8	313	11.4
185	VI	0	11	seedling	alone	1	45.2	41	5.1
186	VI	0	12	tall cutting	alone	47	87.4	107	11.7
187	VI	0.25	1	short cutting	alone	51	70.4	107	10.1
188	VI	0.25	2	tall cutting	alone	61	63.2	72	5.1
189	VI	0.25	3	seedling	alone	57	No plant		
190	VI	0.25	4	short cutting	low density sawgrass	30	90.4	80	11.9
191	VI	0.25	5	tall cutting	low density sawgrass	45	70.7	19	10.4
192	VI	0.25	6	short cutting	high density sawgrass	40	58.0	37	15.6

plant prostrate

plant leaning over

Plant prostrate

plant leaning over

plant leaning over

plant leaning over

plant leaning over

V.C.

willow competition experiment - Osbornes ponds, willow data

start time
~ 0830 h

	Block	Elev (m)	row within block	Willow stage	treatment	willow random #	Willow height (cm) 10 AUG 2010	Willow # leaves 210 AUG 2010	(mm) Willow stem diameter 10 AUG 2010
193	VI	0.25	7	seedling	alone	25	No plant	.	.
194	VI	0.25	8	seedling	low density sawgrass	2	No plant	.	.
195	VI	0.25	9	short cutting	alone	37	56.1	172	13.1
196	VI	0.25	10	seedling	high density sawgrass	60	No plant	.	.
197	VI	0.25	11	tall cutting	alone	64	69.8	141	7.8
198	VI	0.25	12	tall cutting	high density sawgrass	41	89.2	152	11.5
199	VI	0.38	1	seedling	alone	67	No plant	.	.
200	VI	0.38	2	tall cutting	high density sawgrass	54	81.3	60	10.95
201	VI	0.38	3	tall cutting	alone	17	64.2	67	9.19
202	VI	0.38	4	seedling	low density sawgrass	77	No plant	.	.
203	VI	0.38	5	seedling	high density sawgrass	80	No plant	.	.
204	VI	0.38	6	tall cutting	low density sawgrass	29	58.7	125	10.89
205	VI	0.38	7	short cutting	alone	53	56.4	12	10.97
206	VI	0.38	8	seedling	alone	72	No plant	.	.
207	VI	0.38	9	tall cutting	alone	19	65.9	84	11.03
208	VI	0.38	10	short cutting	high density sawgrass	39	56.2	38	9.07
209	VI	0.38	11	short cutting	alone	28	52.4	118	13.29
210	VI	0.38	12	short cutting	low density sawgrass	21	56.3	97	10.57
211	VI	0.5	2	seedling	alone	15	No plant	.	.
212	VI	0.5	5	tall cutting	alone	14	65.0	151	10.96
213	VI	0.5	7	seedling	alone	44	No plant	.	.
214	VI	0.5	8	tall cutting	alone	49	76.5	80	9.69
215	VI	0.5	10	short cutting	alone	36	40.1	124	11.64
216	VI	0.5	12	short cutting	alone	11	41.4	82	10.86

Plant prostrate

10