

Response of Chinese sea buckthorn clonal growth and photosynthetic physiological mechanisms toward a soil moisture gradient

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Supplementary material

Tab. S1 - Chinese sea buckthorn clonal growth dataset.

Irrigation intensity (times)	Control (No irrigation)			3 folds of local precipitation			6 folds of local precipitation			9 folds of local precipitation		
	Repeat 1	Repeat 2	Repeat 3	Repeat 1	Repeat 2	Repeat 3	Repeat 1	Repeat 2	Repeat 3	Repeat 1	Repeat 2	Repeat 3
Soil water content (%)	9.53	9.63	9.63	13.97	13.83	13.67	15.53	15.33	15.17	18.17	17.93	17.47
Tissue water content (%)	52.95	54.06	55.63	60.22	59.25	57.7	67.41	63.15	62.81	58.48	59.8	61.86
Survival rate(%)	70	66.7	80	83.3	86.7	86.7	100	96.7	93.3	90	83.3	86.7
Tree height (m)	1.21	1.17	1.5	2.24	1.85	2.34	2.28	2.83	2.73	2.03	2.6	2.62
Base diameter(cm)	19.51	19.53	25.35	36.35	35.64	43.88	45.68	47.72	45.29	36.89	45.51	43.75
Crown width(m)	1.16	1.1	1.4	1.63	1.46	1.87	1.84	1.97	1.92	1.72	1.83	1.88
Number of daughter ramets	66	60	69	333	318	453	546	618	603	312	438	381
Primary lateral root thickness (mm)	3.5	3.2	3.8	5.9	6.1	6.2	10.2	11.7	10.5	8.8	9.2	9
Primary lateral root length (cm)	42.9	38.5	45.8	80.5	74.7	83.6	111.1	123.6	115.7	101.3	104.6	107.4
Number of primary lateral roots	14	16	14	24	28	26	33	36	32	27	29	28
Total number of lateral roots	943	1056	868	1697	1619	1843	2972	3167	2705	2207	2307	2341
Net photosynthetic rate ($\mu\text{mol CO}_2 \cdot \text{m}^{-2} \cdot \text{s}^{-1}$)	17.37	17.71	17.88	21.47	21.14	23.98	30.63	29.52	29.43	23.29	25.36	21.51
Stomatal conductance ($\text{mol H}_2\text{O} \cdot \text{m}^{-2} \cdot \text{s}^{-1}$)	0.43	0.39	0.29	0.47	0.44	0.53	0.68	0.59	0.54	0.46	0.47	0.45
Chlorophyll content ($\text{mg} \cdot \text{g}^{-1}$)	1.2773	1.4746	1.3502	1.617	1.4091	1.6132	1.9408	1.7429	1.7678	1.5638	1.5336	1.5545
Transpiration rate ($\text{mmol H}_2\text{O} \cdot \text{m}^{-2} \cdot \text{s}^{-1}$)	5.31	5.4	4.49	9.88	10.28	10.16	11.62	11.52	13.23	10.09	10.71	10
RCA	1	0.8376	0.9188	2.7999	2.0706	2.4352	4.1072	7.1722	5.6397	1.4065	1.223	1.3147
CHLH	1	3.58	6.15	14.7	14.77	14.74	19.88	23.4	21.64	8.07	8.75	8.41

Fig. S1 - Site condition and plant material.

1. Irrigation before planting



2. Irrigation after planting



3. One-year sea buckthorn

