

Supplementary material



Fig. S1. A minirhizotron image captured on 10 July 2010 showing a root nodule on the roots of a soybean at 20 cm soil depth in EC-RP treatment. The area of soil in the image is approximately 16 mm wide $\times$ 11 mm tall.

Table S1. ANCOVA table showing the direct and interactive effects of CO₂, precipitation (H₂O) and day of year (DOY) on soil H₂O%_{v/v} for each 10 cm depth increment of soil from 5 to 105 cm

Soil depth	Effect	F-value	P-value
5–15 cm	CO ₂	7.99	0.06
	H ₂ O	115.65	<0.0001
	CO ₂ ×H ₂ O	4.71	<0.05
	DOY	243.15	<0.0001
	DOY×CO ₂	1.34	0.12
	DOY×H ₂ O	61.39	<0.0001
	DOY×CO ₂ ×H ₂ O	0.56	0.97
15–25 cm	CO ₂	0.38	0.55
	H ₂ O	37.95	<0.0001
	CO ₂ ×H ₂ O	0.14	0.72
	DOY	123.35	<0.0001
	DOY×CO ₂	0.68	0.89
	DOY×H ₂ O	44.85	<0.0001
	DOY×CO ₂ ×H ₂ O	0.48	0.99
25–35 cm	CO ₂	3.57	<0.10
	H ₂ O	81.96	<0.0001
	CO ₂ ×H ₂ O	5.08	0.04
	DOY	114.63	<0.0001
	DOY×CO ₂	1.65	0.02
	DOY×H ₂ O	45.02	<0.0001
	DOY×CO ₂ ×H ₂ O	1.50	0.05
35–45 cm	CO ₂	2.45	0.13
	H ₂ O	32.19	<0.0001
	CO ₂ ×H ₂ O	4.04	0.06
	DOY	58.59	<0.0001
	DOY×CO ₂	1.76	0.01
	DOY×H ₂ O	16.46	<0.0001
	DOY×CO ₂ ×H ₂ O	0.74	0.83
45–55 cm	CO ₂	2.03	0.20
	H ₂ O	21.56	<0.001
	CO ₂ ×H ₂ O	2.37	0.15
	DOY	38.36	<0.0001
	DOY×CO ₂	1.54	0.04
	DOY×H ₂ O	9.37	<0.0001
	DOY×CO ₂ ×H ₂ O	0.55	0.97

Table S1. (continued)

Soil depth	Effect	F-value	P-value
55–65 cm	CO ₂	1.08	0.33
	H ₂ O	6.20	0.03
	CO ₂ ×H ₂ O	0.45	0.52
	DOY	24.06	<0.0001
	DOY×CO ₂	0.87	0.66
	DOY×H ₂ O	6.06	<0.0001
	DOY×CO ₂ ×H ₂ O	0.55	0.97
65–75 cm	CO ₂	0.70	0.42
	H ₂ O	1.22	0.29
	CO ₂ ×H ₂ O	0.03	0.87
	DOY	15.93	<0.0001
	DOY×CO ₂	0.67	0.91
	DOY×H ₂ O	3.20	<0.0001
	DOY×CO ₂ ×H ₂ O	0.70	0.88
75–85 cm	CO ₂	0.17	0.69
	H ₂ O	0.21	0.66
	CO ₂ ×H ₂ O	0.03	0.86
	DOY	11.97	<0.0001
	DOY×CO ₂	0.74	0.83
	DOY×H ₂ O	2.02	<0.01
	DOY×CO ₂ ×H ₂ O	0.64	0.93
85–95 cm	CO ₂	0.87	0.37
	H ₂ O	0.77	0.40
	CO ₂ ×H ₂ O	0.24	0.64
	DOY	10.73	<0.0001
	DOY×CO ₂	0.84	0.71
	DOY×H ₂ O	0.87	0.66
	DOY×CO ₂ ×H ₂ O	0.36	0.99
95–105 cm	CO ₂	0.78	0.44
	H ₂ O	0.63	0.45
	CO ₂ ×H ₂ O	0.71	0.42
	DOY	10.90	<0.0001
	DOY×CO ₂	1.22	0.21
	DOY×H ₂ O	0.70	0.88
	DOY×CO ₂ ×H ₂ O	0.68	0.89