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*The impact of soil salinity on the yield, composition and physiology of the bioenergy grass *Miscanthus x giganteus**

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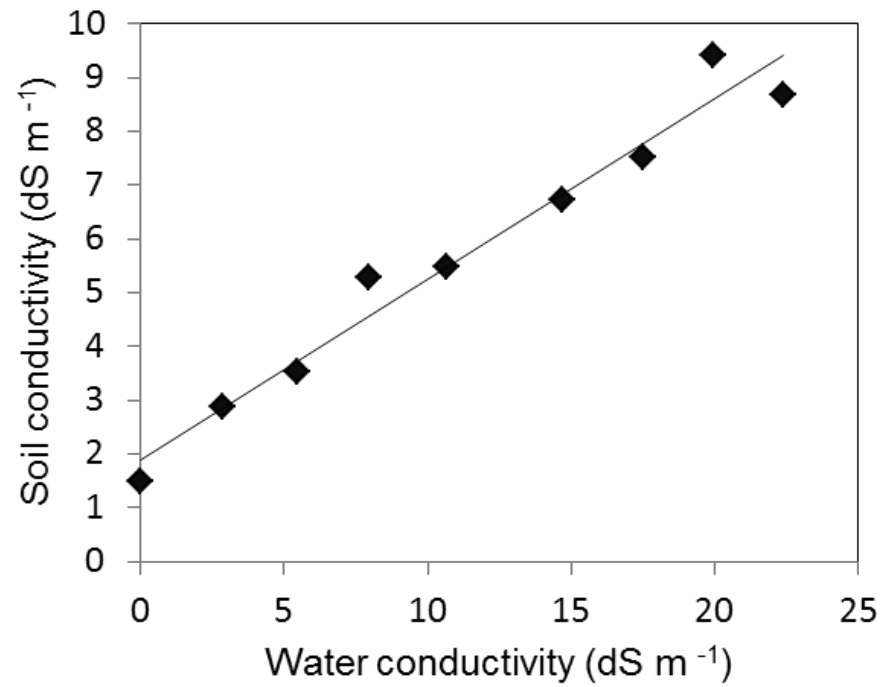


Figure S1. Linear regression of soil conductivity as a function of water conductivity, slope represents the reciprocal of the formation resistivity factor (0.336) and the intercept with y axis is the soil conductivity due to the clay content of the soil (1.88).

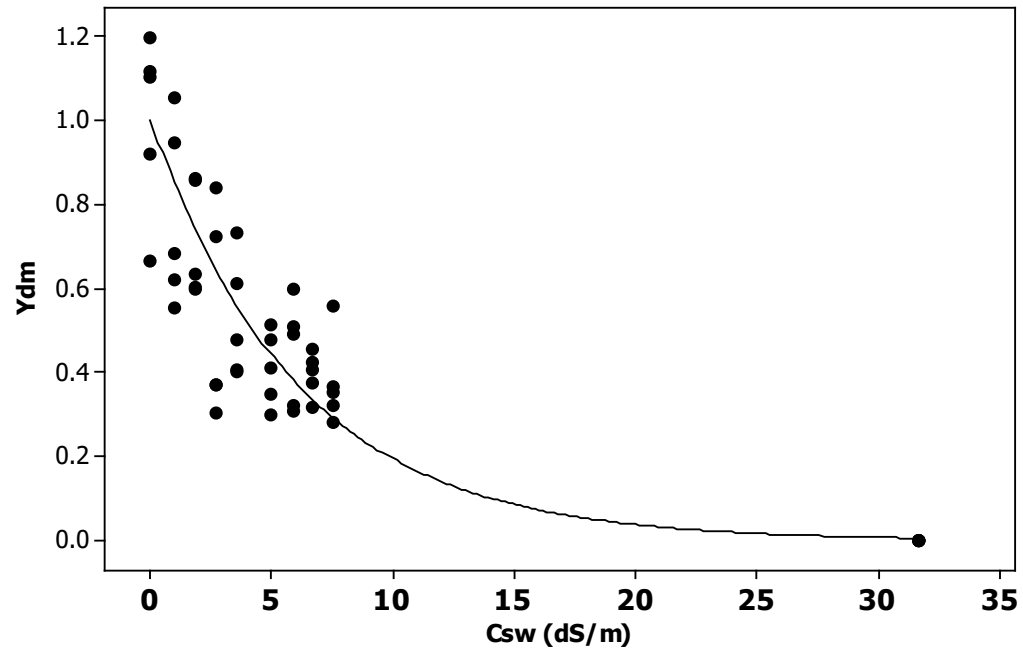


Figure S2. Non-linear regression of proportion reduction of non-saline dry matter yield (Y_{dm}) using soil conductivity due to water conductivity (C_{sw}) as an explanatory variable. The resulting equation is $Y_{dm} = 1.0(\exp(-.163894 \times C_{sw}))$, the standard error of regression is 0.143 is the lowest of all forms tried and respects both initial point and final point

Table S1. Parameters that were transformed to achieve normality.

Parameters	Transformations
Relative Yields	Reciprocal
Yield D.M.	Log
WUE	Log
Rhizome	Log
Root/Rhizome	Log
SPAD	Box Cox
FvFm	Box Cox
Proline	Box Cox
Leaf number	Box Cox

Table S2. Fluorescence parameters F_v/F_m and PI in 9 different NaCl concentrations and 6 time points (Day). Data are mean \pm Standard Error (SE).

Parameters	NaCl (mM)	Day											
		30		37		44		50		57		73	
		Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE	Mean	SE
F_v/F_m	0	0.774	0.002	0.769	0.003	0.774	0.007	0.773	0.004	0.774	0.005	0.777	0.003
	2.86	0.766	0.002	0.777	0.003	0.767	0.008	0.767	0.003	0.775	0.004	0.772	0.007
	5.44	0.765	0.005	0.769	0.004	0.767	0.003	0.777	0.005	0.768	0.005	0.762	0.004
	7.96	0.764	0.008	0.778	0.004	0.778	0.004	0.755	0.007	0.773	0.008	0.760	0.012
	10.65	0.774	0.006	0.773	0.003	0.773	0.003	0.772	0.003	0.777	0.005	0.755	0.015
	14.68	0.769	0.006	0.769	0.003	0.765	0.005	0.777	0.005	0.770	0.006	0.772	0.010
	17.5	0.766	0.007	0.772	0.002	0.766	0.002	0.771	0.003	0.772	0.005	0.763	0.003
	19.97	0.771	0.001	0.775	0.003	0.773	0.005	0.779	0.003	0.776	0.004	0.766	0.006
	22.4	0.769	0.001	0.773	0.004	0.764	0.003	0.761	0.010	0.775	0.004	0.758	0.009
PI	0	3.165	0.289	2.698	0.071	2.722	0.249	2.852	0.093	2.348	0.255	2.458	0.263
	2.86	3.268	0.360	2.667	0.515	3.215	0.271	2.539	0.457	2.316	0.205	2.371	0.374
	5.44	3.545	0.213	2.879	0.063	3.072	0.201	2.406	0.242	2.231	0.137	2.737	0.085
	7.96	2.585	0.373	2.200	0.414	3.046	0.182	2.269	0.283	2.480	0.279	1.768	0.248
	10.65	2.372	0.609	3.217	0.226	2.849	0.204	2.458	0.385	2.494	0.259	2.203	0.119
	14.68	3.220	0.235	2.992	0.150	2.816	0.221	2.655	0.174	2.598	0.190	2.203	0.363
	17.5	2.980	0.219	2.702	0.449	2.708	0.070	1.980	0.447	2.631	0.142	2.831	0.392
	19.97	3.123	0.156	2.832	0.216	2.814	0.302	2.532	0.209	2.526	0.219	2.357	0.278
	22.4	3.029	0.324	3.204	0.294	2.393	0.270	2.015	0.348	2.331	0.295	2.533	0.578

Table S3. Stomatal conductance (g_s mmol m⁻² s⁻¹) of *M. x giganteus* at 9 different NaCl concentrations and 4 time points (Day). Data are mean ±Standard Error (SE).

NaCl (mM)	Days							
	65		73		77		85	
	Mean	±S.E.	Mean	±S.E.	Mean	±S.E.	Mean	±S.E.
0	55.84	5.04	43.40	6.16	52.00	4.00	30.32	7.26
2.86	50.48	3.73	41.66	7.80	39.38	6.72	35.44	6.20
5.44	41.16	4.80	35.62	11.73	34.14	4.68	24.62	3.84
7.96	60.37	18.67	48.62	4.38	48.50	9.26	24.60	5.69
10.65	44.06	6.26	48.46	18.91	37.42	12.86	24.52	3.90
14.68	42.42	1.77	25.52	3.65	28.44	2.17	25.26	5.52
17.5	33.32	3.41	20.44	2.62	32.00	5.17	26.78	5.13
19.97	34.58	2.74	24.58	8.93	21.54	3.95	29.26	4.64
22.4	32.94	7.26	18.96	6.47	16.18	1.62	22.46	4.81

Table S4. Mean stomatal conductance (g_s mmol m⁻² s⁻¹) over 7 time points of *M. x giganteus* at 8 different NaCl concentrations and the percent of reduction compared to the control conditions (0 mM NaCl). Data are mean \pm Standard Error (SE).

NaCl (mM)	Over time		% reduction
	Mean	\pm S.E.	
0	93.93	13.27	0.0
2.86	91.40	5.81	2.6
5.44	93.73	8.81	0.2
7.96	68.42	6.79	27.2
10.65	82.02	5.01	12.7
14.68	75.47	6.50	19.6
17.5	78.99	4.17	15.9
19.97	67.74	3.54	27.8
22.4	56.09	7.93	40.3