

SUPPLEMENTARY MATERIAL

Trichoderma asperellum inoculation as a tool for attenuating drought stress in sugarcane

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Table S1. Physical-chemical analysis of the soil before the beginning of the experiment.

Sand		Clay		Silt		Soil texture		Soil density
810		(g kg ⁻¹)		49		Sandy		(g cm ⁻³)
141								1.46
pH	SOM	P _{resin}	K ⁺	Ca ²⁺	Mg ²⁺	SB	CTC	BS
(CaCl ₂)	(g dm ⁻³)	(mg dm ⁻³)			(mmol _c dm ⁻³)			
4.1	5	2	0.31	4	1	6	22	25
S	Al ³⁺	H+Al	Fe	Cu	Mn	Zn	B	
(g dm ⁻³)	(mmol _c dm ⁻³)					(mg dm ⁻³)		
9	12	17	88	1.1	9.2	1.2	0.7	

Table S2. Statistical parameters of ANOVA test ($p \leq 0.05$) for all sugarcane variables studied.

Treatments		ANOVA (<i>F</i> probability)				
		<u>Crop nutrition</u>				
	N	P	K	Ca	Mg	S
Inoculation (I)	0.0213	0.1070	0.8642	0.4264	0.1833	0.0322
Drought Stress (DS)	<0.001	0.5263	0.1062	0.6119	0.0760	0.1523
I X DS	0.0462	0.6330	0.7586	0.5247	0.3104	0.0425
		<u>Photosynthetic pigments</u>				
	Chl <i>a</i>	Chl <i>b</i>	Total chlorophyll	Total carotenoids		
Inoculation (I)	0.0016	<0.001	<0.001	0.0698		
Drought Stress (DS)	0.0022	<0.001	<0.001	0.0075		
I X DS	0.0123	0.0495	0.0144	0.0500		
		<u>Gas exchange</u>				
	<i>A</i>	<i>g_s</i>	<i>C_i</i>	<i>E</i>	WUE	<i>A/C_i</i>
Inoculation (I)	<0.001	0.0021	0.220	0.0783	<0.001	<0.001
Drought Stress (DS)	<0.001	<0.001	<0.001	<0.001	0.0032	<0.001
I X DS	0.0037	0.0427	0.0509	0.0602	0.0352	0.0185
		<u>Sugars concentration</u>				
	Reducing Sugar	Sucrose	Total sugar	Starch		
Inoculation (I)	<0.001	<0.001	0.0012	<0.001		
Drought Stress (DS)	<0.001	<0.001	0.0012	<0.001		
I X DS	0.0045	0.0074	0.0372	<0.001		
		<u>Enzymes activity</u>				
	NR	SOD	POD	Proline		
Inoculation (I)	<0.001	<0.001	<0.001	<0.001		
Drought Stress (DS)	<0.001	<0.001	<0.001	<0.001		
I X DS	0.0487	0.0237	0.0492	<0.001		
		<u>Root development</u>				
	Root length	Root dry weight				
Inoculation (I)	<0.001	0.0020				
Drought Stress (DS)	<0.001	0.0066				
I X DS	0.0010	0.0015				
		<u>Biometric parameters</u>				
	Plant height	Stalk diameter	Leaf width	Tillers plant ⁻¹	Stalk fresh weight	Stalk dry weight
Inoculation (I)	<0.001	0.0047	0.0320	0.0126	<0.001	<0.001
Drought Stress (DS)	<0.001	0.0090	0.0041	0.0126	<0.001	<0.001
I X DS	0.0325	0.0412	0.0320	0.0404	0.0135	0.0076

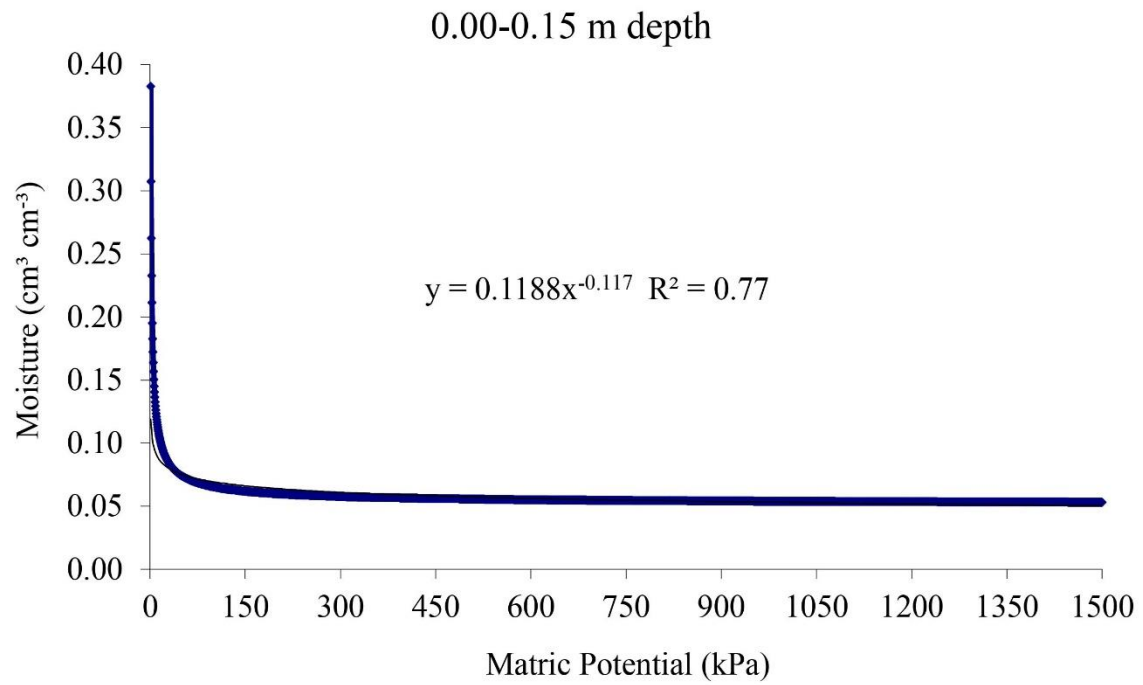


Figure S1. Soil water retention curve from soil used in the present study.

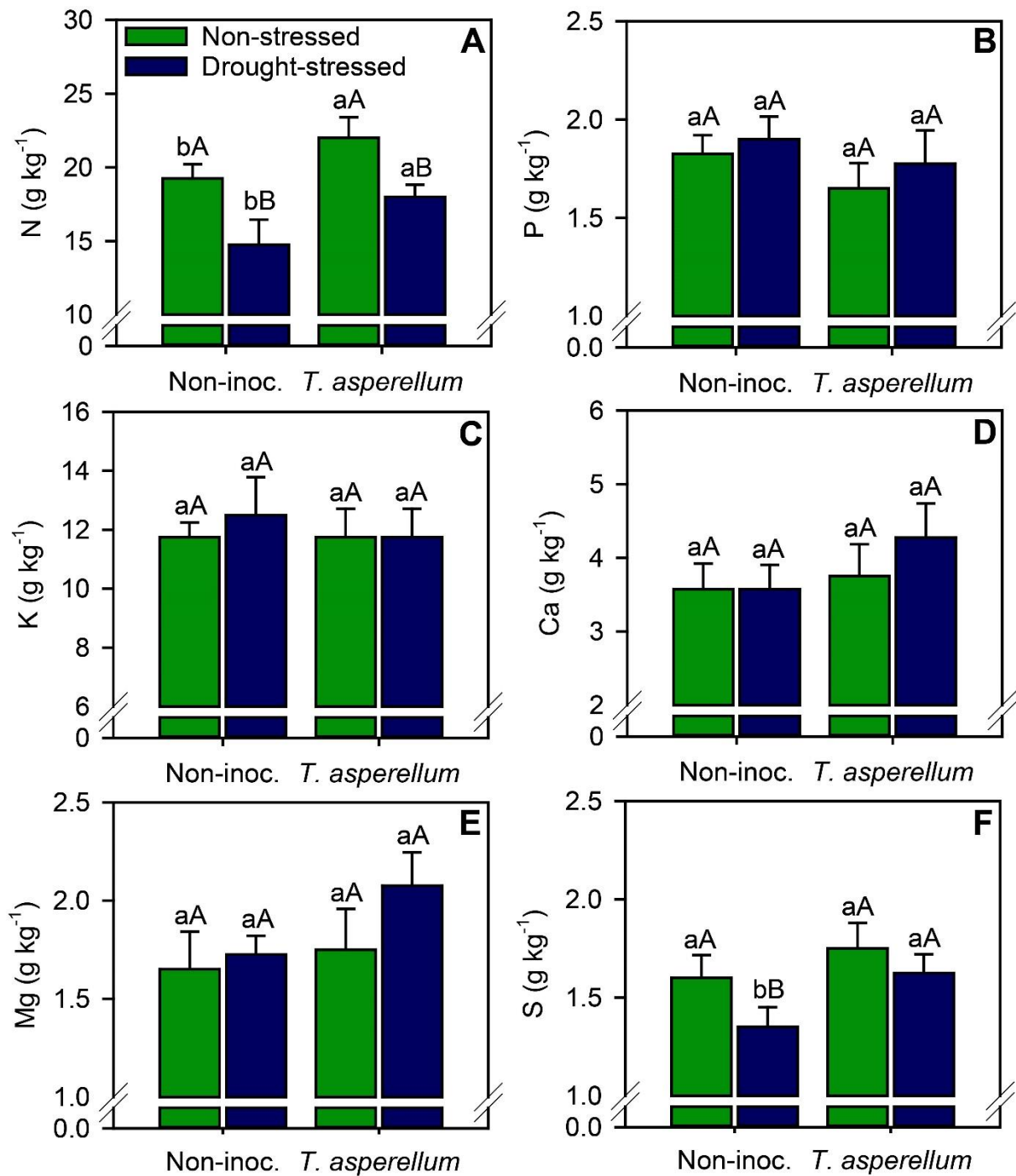


Figure S2. Concentration of nitrogen (a), phosphorus (b), potassium (c), magnesium (d), calcium (e), and sulfur (f) in sugarcane leaves according to the treatments. Different lower-case letters indicate significant differences between presence or absence of moderate drought stress, and different capital letters indicate significant differences between presence or absence of inoculation with *T. asperellum* by Fisher's protected LSD test at $p \leq 0.05$. Error bars express the standard error of the mean ($n = 4$).