

## Agronomic performance of dual-purpose *Sorghum bicolor* (L.) hybrids under water deficit

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**Supplementary Table 1.** Values of fresh mass (FM), dry mass and dry matter content of the sorghum root system as a function of hybrids (HBD) and water replacement levels (WRL).

CV (%)	<i>p</i> -valor			HBD	WRL (%ETc)		Mean
	WRL	HBD	WRL *HBD		100	50	
----- Fresh mass (g pot <sup>-1</sup> ) -----							
19.1	0.0367	<0.001	<0.001	AGRI 002-E	18.14 <sub>Aa</sub>	7.55 <sub>Ab</sub>	12.84
				AGRI G1	3.60 <sub>Ca</sub>	5.04 <sub>Aa</sub>	4.32
				AGRI G2	4.67 <sub>Ca</sub>	10.23 <sub>Ab</sub>	7.45
				BREVANT SS318	12.40 <sub>Ba</sub>	8.03 <sub>Aa</sub>	10.22
				BRS 658	12.06 <sub>Ba</sub>	5.92 <sub>Ab</sub>	8.99
				Mean	10.18	7.35	
----- Dry mass (g pot <sup>-1</sup> ) -----							
24.5	0.3488	0.0622	0.1066	AGRI 002-E	9.24	5.97	7.61
				AGRI G1	3.27	3.22	3.59
				AGRI G2	3.71	7.21	5.46
				BREVANT SS318	8.75	5.67	7.21
				BRS 658	8.08	4.43	6.26
				Mean	6.61	5.44	
----- Dry matter content (%) -----							
13.1	0.2587	0.5525	0.1287	AGRI 002-E	54.46	79.01	66.73
				AGRI G1	91.31	78.45	84.88
				AGRI G2	81.93	71.02	76.47
				BREVANT SS318	73.62	73.62	72.55
				BRS 658	64.96	64.96	70.07
				Mean	73.26	75.02	

Means followed by the same lowercase letter in the row and uppercase in the column do not differ from each other to the Scott–Knott test at 5% probability. CV: coefficient of variation.

**Supplementary Table 2.** Correlations between the principal components (PC) and the analyzed variables in five sorghum hybrids grown with 100 % replacement of evapotranspired water.

	PC <sub>1</sub>	PC <sub>2</sub>	PC <sub>3</sub>	PC <sub>4</sub>	PC <sub>5</sub>
Standart deviation	2.139	1.7568	0.56224	0.14712	5.306e-16
Proportion of variation	0.572	0.3858	0.03951	0.00271	0.000e+00
Cumulative proportion	0.572	0.9578	0.99729	1.00000	1.000e+00
Correlations					
Stem diameter (SD)	0.007	0.549	0.465	0.139	0.510
Plant height (PH)	0.343	-0.346	0.526	-0.407	0.136
Foliar area index (FAI)	0.287	0.401	-0.624	-0.410	0.109
Chlorophyll index (CHLi)	-0.425	-0.227	-0.172	-0.392	0.664
Shoot fresh mass (FM)	0.415	0.259	-0.0529	-0.369	0.279
Shoot dry mass (SM)	0.347	-0.378	-0.166	0.259	0.076
Root dry mass (RM)	0.453	0.126	0.147	-0.498	-0.173
Water productivity (WP)	0.348	-0.375	-0.188	0.205	0.393

**Supplementary Table 3.** Correlations between the principal components (PC) and the analyzed variables in five sorghum hybrids grown with 50 % replacement of evapotranspired water.

	PC <sub>1</sub>	PC <sub>2</sub>	PC <sub>3</sub>	PC <sub>4</sub>	PC <sub>5</sub>
Standart deviation	2.0981	1.5351	0.9923	0.50670	9.288e-16
Proportion of variation	0.5503	0.2945	0.1231	0.03209	0.000e+00
Cumulative proportion	0.5503	0.8448	0.9679	1.00000	1.000e+00
<b>Correlations</b>					
Stem diameter (SD)	0.361	0.364	0.262	0.426	0.485
Plant height (PH)	-0.347	-0.148	-0.597	0.508	0.149
Foliar area index (FAI)	0.450	-0.120	0.273	-0.057	-0.121
Chlorophyll index (CHLi)	-0.249	0.489	0.301	0.535	-0.408
Shoot fresh mass (FM)	0.232	0.503	-0.399	-0.2113	0.020
Shoot dry mass (SM)	0.412	-0.295	-0.142	0.333	0.345
Root dry mass (RM)	0.306	0.399	-0.459	-0.119	-0.181
Water productivity (WP)	0.409	-0.303	-0.143	0.318	-0.640