

Table S1. Summary of combined analysis of variance, for morphological traits, water status, and root traits of four parents and their hybrid combinations of popcorn grown under contrasting water conditions (WW and WS).

	SV / Traits	G	WC	G*WC
Morphological	Shoot Biomass (g)	**	**	**
	Whole plant area (m <sup>2</sup> )	**	**	ns
	Chlorophyll concentration (Dualex index)	**	**	**
Water status	Carbon isotope discrimination ( $\delta^{13}\text{C}$ )	**	**	**
	Net CO <sub>2</sub> assimilation rate ( $\mu\text{mol CO}_2 \text{ m}^{-2} \text{ s}^{-1}$ )	**	**	*
	Stomatal conductance ( $\text{mol H}_2\text{O m}^{-2} \text{ s}^{-1}$ )	**	**	*
	Transpiration ( $\text{mmol H}_2\text{O m}^{-2} \text{ s}^{-1}$ )	**	**	*
	Cumulative plant transpiration ( $\text{dm}^3 \text{ plant}^{-1}$ )	**	**	ns
Root traits	RWD <sub>a</sub> (cm)	**	**	**
	RWD <sub>c</sub> (cm)	**	ns	**
	RWD <sub>e</sub> (cm)	**	**	*

SV: sources of variation; Genotype (G), water condition (WC) and the genotype\*water condition (G\*WC) interaction. Levels of significance: \*  $p < 0.05$ ; \*\*  $p < 0.01$ ; ns = not significant, respectively, by the F test; obtained from four parents and 12 hybrids evaluated in two different water condition.