

Table S1. Linear relationship between canopy temperature extracted by UAV thermal infrared imagery and canopy temperature measured by hand-held infrared analyzer.

Date	Linear formula	R ² value	RMSE (°C)
5 May	$y = 0.96x - 0.31$	0.76	0.93
11 May	$y = 0.7x + 6.77$	0.65	0.31
20 May	$y = 0.76x + 9.27$	0.83	0.80
25 May	$y = 0.76x + 6.3$	0.88	0.59
2 June	$y = 1.07x - 0.79$	0.90	0.65

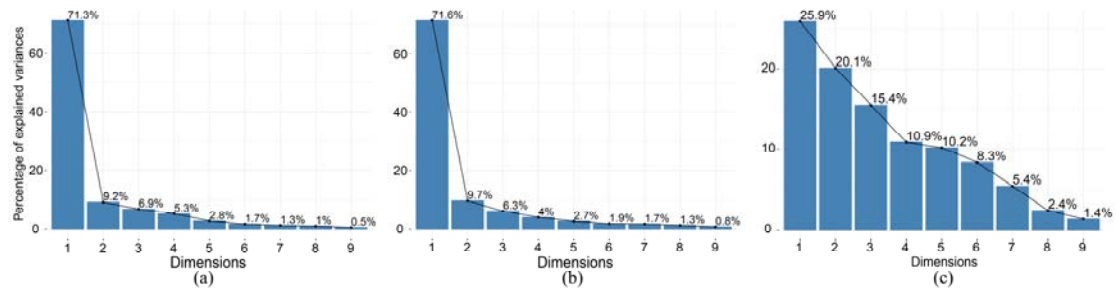


Figure S1. Scree plot to express the degree of explanation of each principal component to the total variance in three water deficit treatments. (a) W0, no irrigation during the growing season, (b) W1, irrigation at jointing, (c) and W2, irrigation at jointing and anthesis.