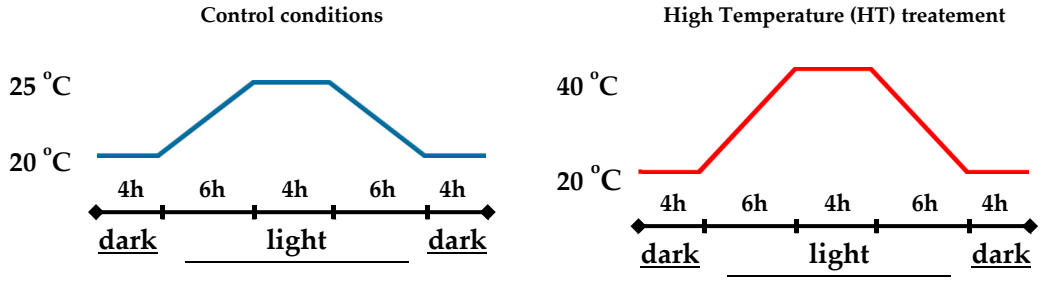
Supplementary Material

Figure S1. Wheat plants growth conditions



Notes: One week High Temperature (HT) treatment, mimetizing a heat wave, was performed ten days after anthesis in growth chambers with controlled conditions at 8h dark / 16h light cycle. During the 16 h light, a progressive temperature increase from 20 ºC to 40 ºC was implemented (20ºC to 25 ºC in control), temperature was maintained 4h at 40ºC and then progressive decreased back to 20 ºC.

Table S1. Single grain nitrogen content quantification by elemental analysis in mature grains

Bread wheat varieties	Control			HT Treatment		
Biological replicates	1	2	3	1	2	3
Almansor	1.97	1.92	1.7	1.96	1.81	1.94
Antequera	2.28	2.43	2.37	2.52	2.12	1.8
Bancal	1.95	2.04	2.28	1.83	1.88	1.83
Estero	2.71	1.96	2.03	2.29	2.60	2.59
Nabão	2.43	2.33	1.97	2.47	2.51	2.27
Pata Negra	2.15	2.32	2.7	2.45	2.26	2.41
Roxo	1.94	1.95	1.99	2.1	1.84	2.17

Notes: Values presented were obtained in the REQUIMTE@UCIBIO-FCT-UNL analytical laboratory using a Flash EA1112 CHNS analyzer (Thermo Finnigan CE Instruments, Italy) equipped with a gas chromatography column and a thermal conductivity detector. The three values presented per variety / temperature condition correspond to three biological replicates.