

Genetic variation for photosynthetic capacity and efficiency in spring wheat

SUPPLEMENTARY FIGURES

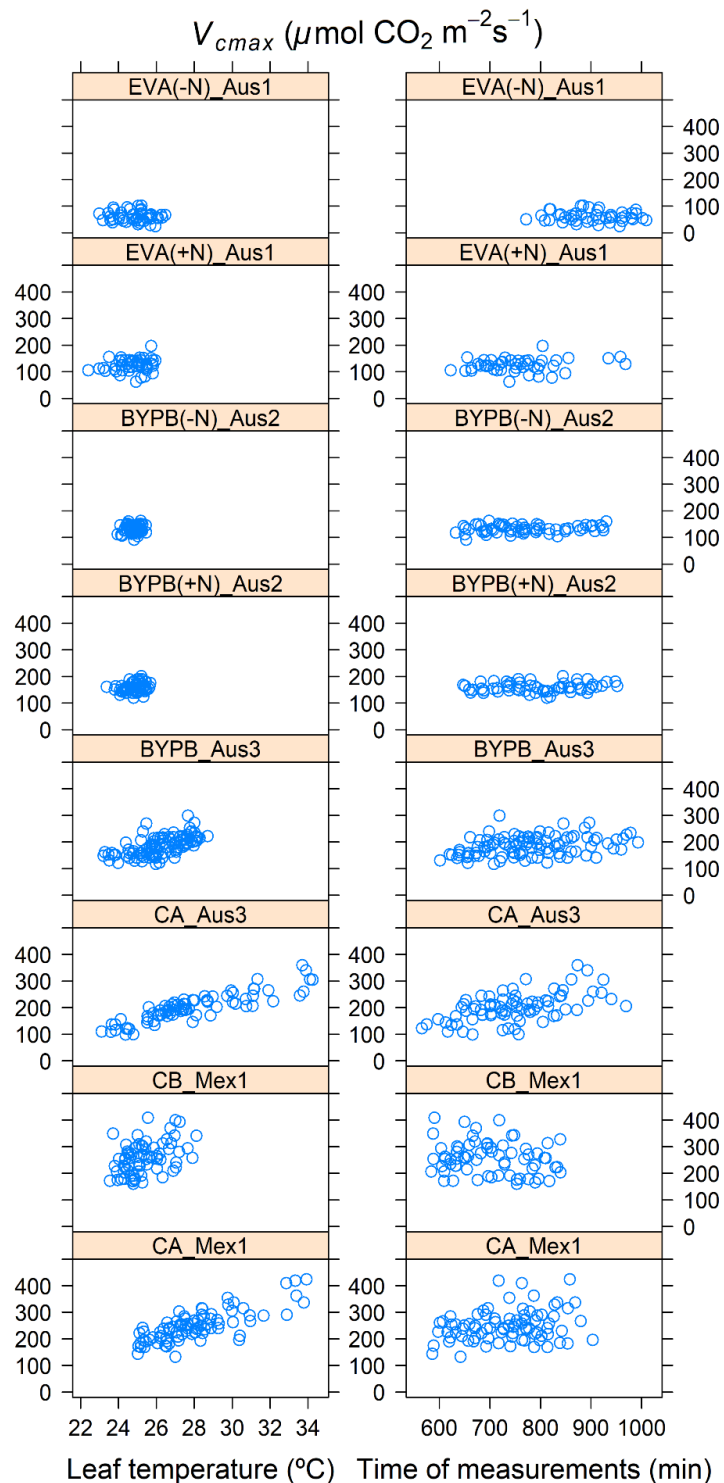


Fig. S1 Variation of V_{cmax} without temperature correction in relation to leaf temperature and time. Measurements started around 10:00 h (600 min) and finished 16:00 h (1000 min).

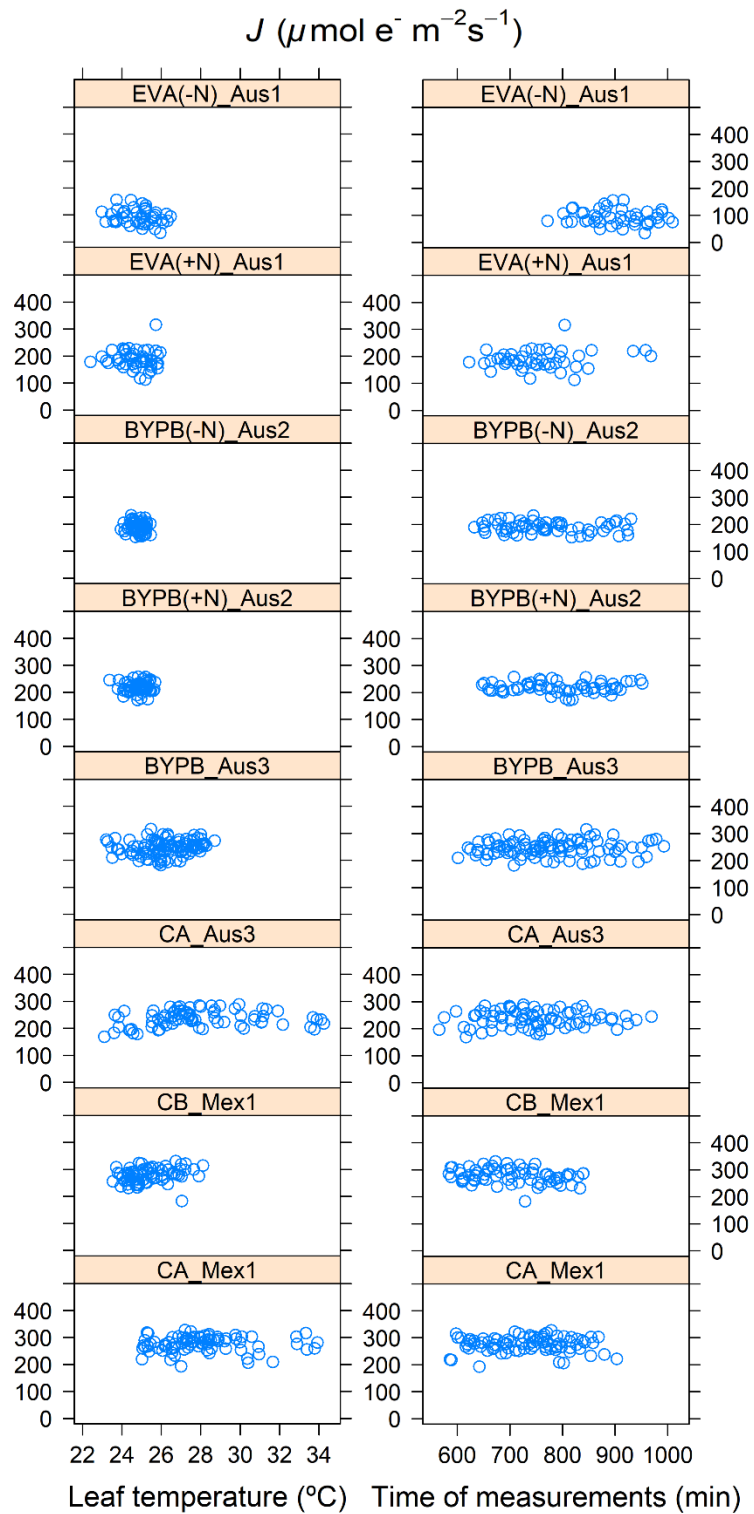


Fig. S2 Variation of J without temperature correction in relation to leaf temperature and time. Measurements started around 10:00 h (600 min) and finished 16:00 h (1000 min).

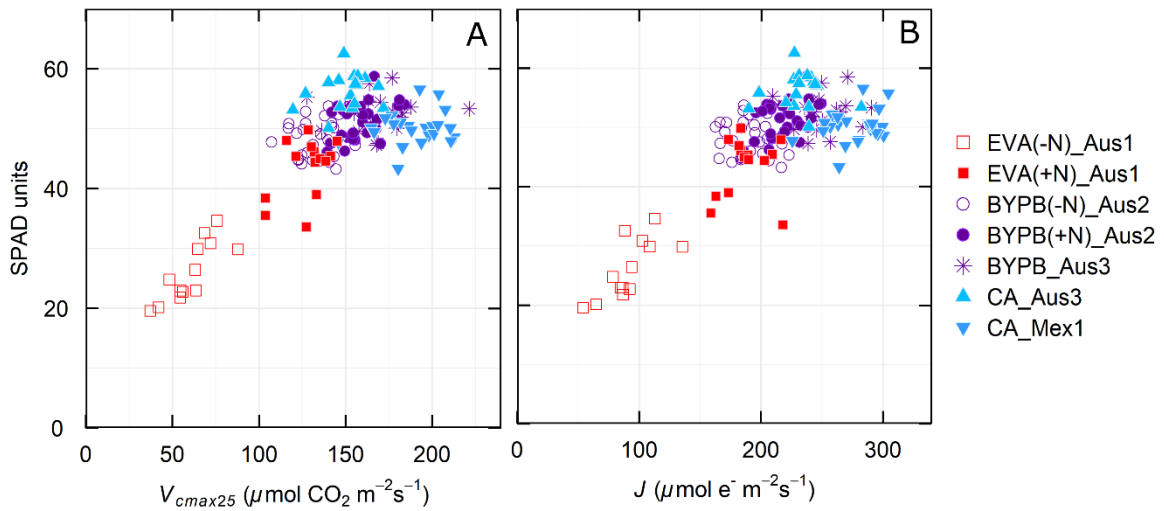


Fig. S3 SPAD as a function of A) V_{cmax25} , and B) J for wheat genotypes grown in different environments and measured at different stages as described (see Fig. 1 I,D,E). Symbols represent means of each genotype.

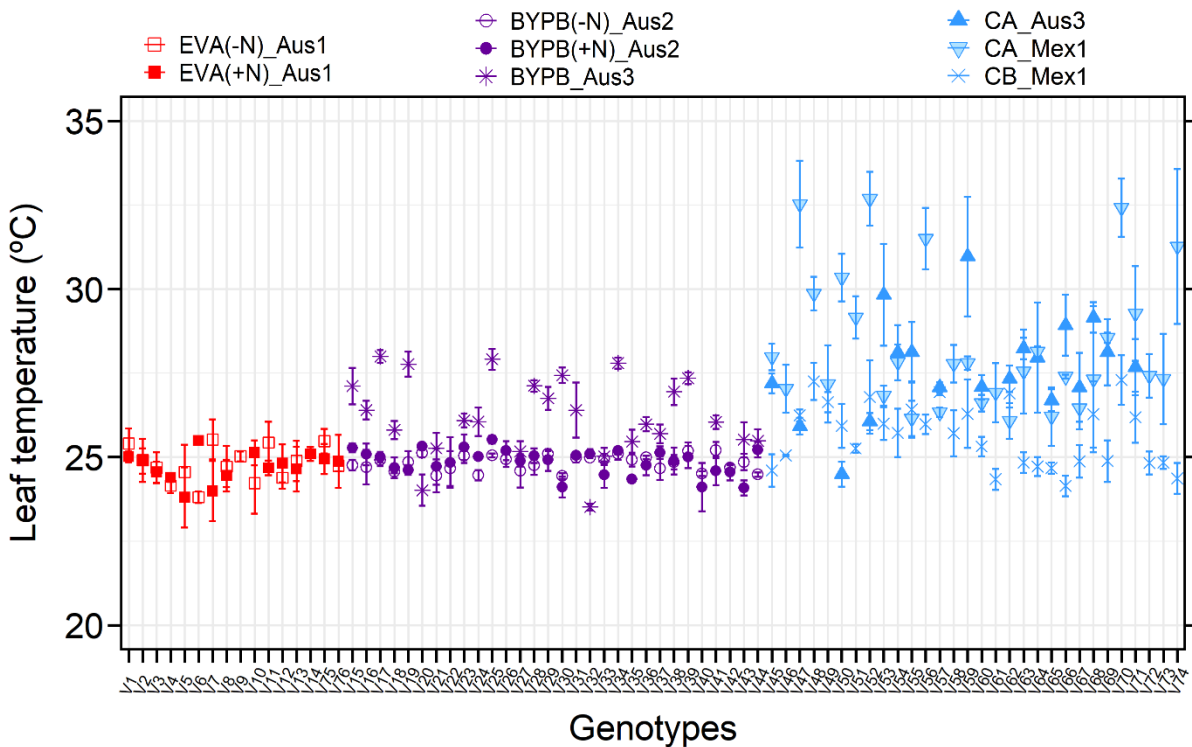


Fig. S4 Leaf temperature extracted from LI-6400XT for wheat plants measured in the glasshouse (Aus1 and Aus2) and in the field (Aus3 and Mex1). Genotype list is in table S1 and table S2.

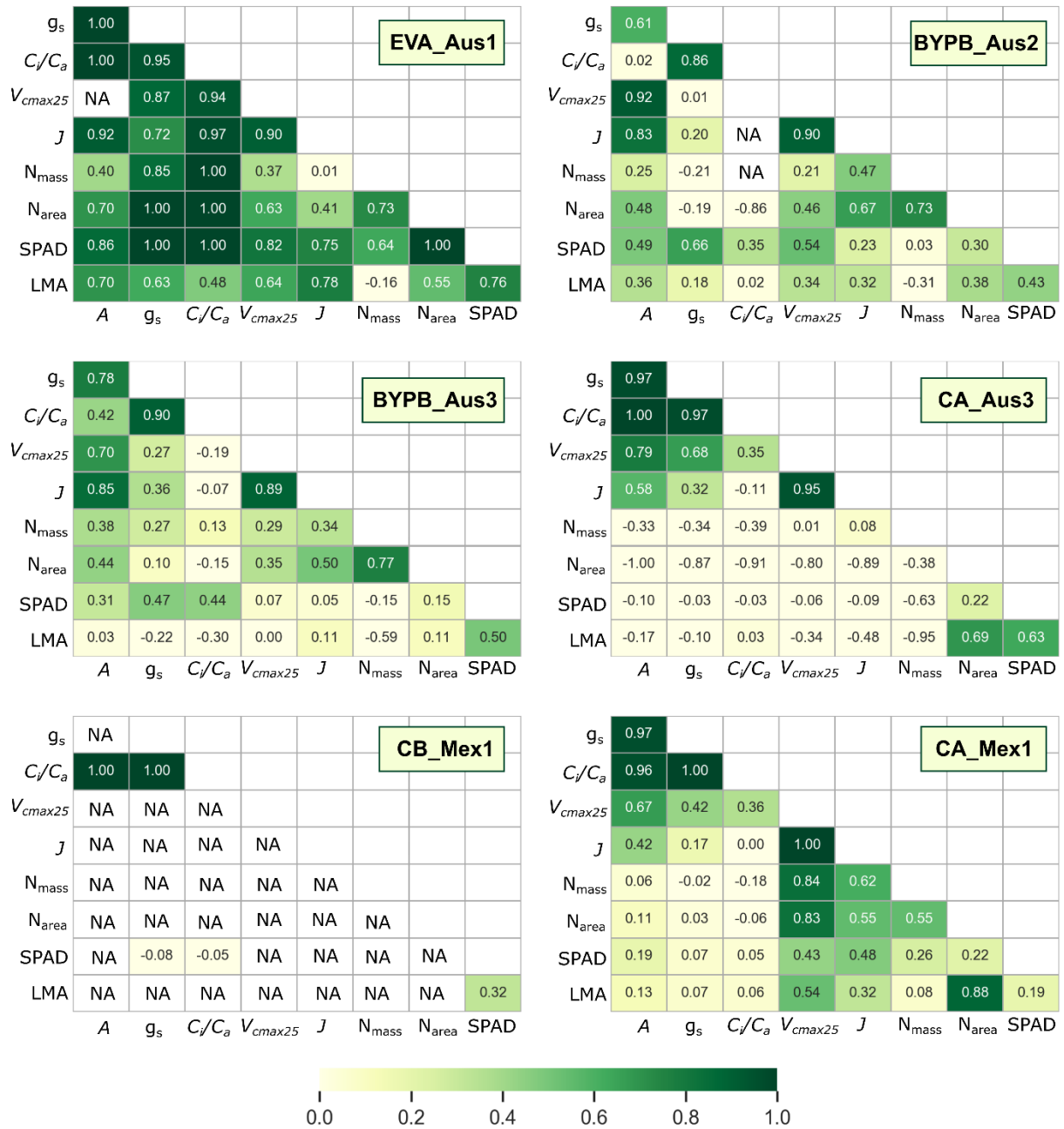


Fig. S5 Genetic correlations for all experiments for assimilation rate (A , $\mu\text{mol CO}_2 \text{ m}^{-2} \text{ s}^{-1}$), stomatal conductance (g_s , $\text{mol H}_2\text{O m}^{-2} \text{ s}^{-1}$), the ratio of internal to atmospheric CO_2 concentration (C_i/C_a , $\mu\text{mol CO}_2 \text{ mol air}^{-1}$), velocity of carboxylation at 25 °C (V_{cmax25} , $\mu\text{mol CO}_2 \text{ m}^{-2} \text{ s}^{-1}$), electron transport rate (J , $\mu\text{mol e}^- \text{ m}^{-2} \text{ s}^{-1}$), leaf mass dry per area (LMA, g m^{-2}), leaf nitrogen concentration (N_{mass} , N mg g^{-1}), leaf nitrogen per area (N_{area} , N g m^{-2}), and SPAD as surrogate of chlorophyll content. Values are rounded to two decimals. NA are missing values or there was insufficient genetic variance for the calculation. Both nitrogen treatments were used to calculate the genetic correlations from Aus1 and Aus2 experiment.