

**Figure S1.**

Distributions of phenotypic data for early vigor (measured as height at growth stage 31, 32, and 34 (Zadoks *et al.*, 1974) (Ht31, Ht32, and Ht34), straw length (StL), straw breaking (Sb), lodging (Ld), days from sowing to heading (HD), accumulated heat sum from sowing to heading (HSHD), days from sowing to maturity (MD), accumulated heat sum from sowing to maturity (HSMD), grain filling period (registered as the number of days between heading and maturity) (GFP), and the accumulated heat sum in the grain filling period (HSGFP) for both panel PPP169 (on the left) and PPP124 (on the right).







