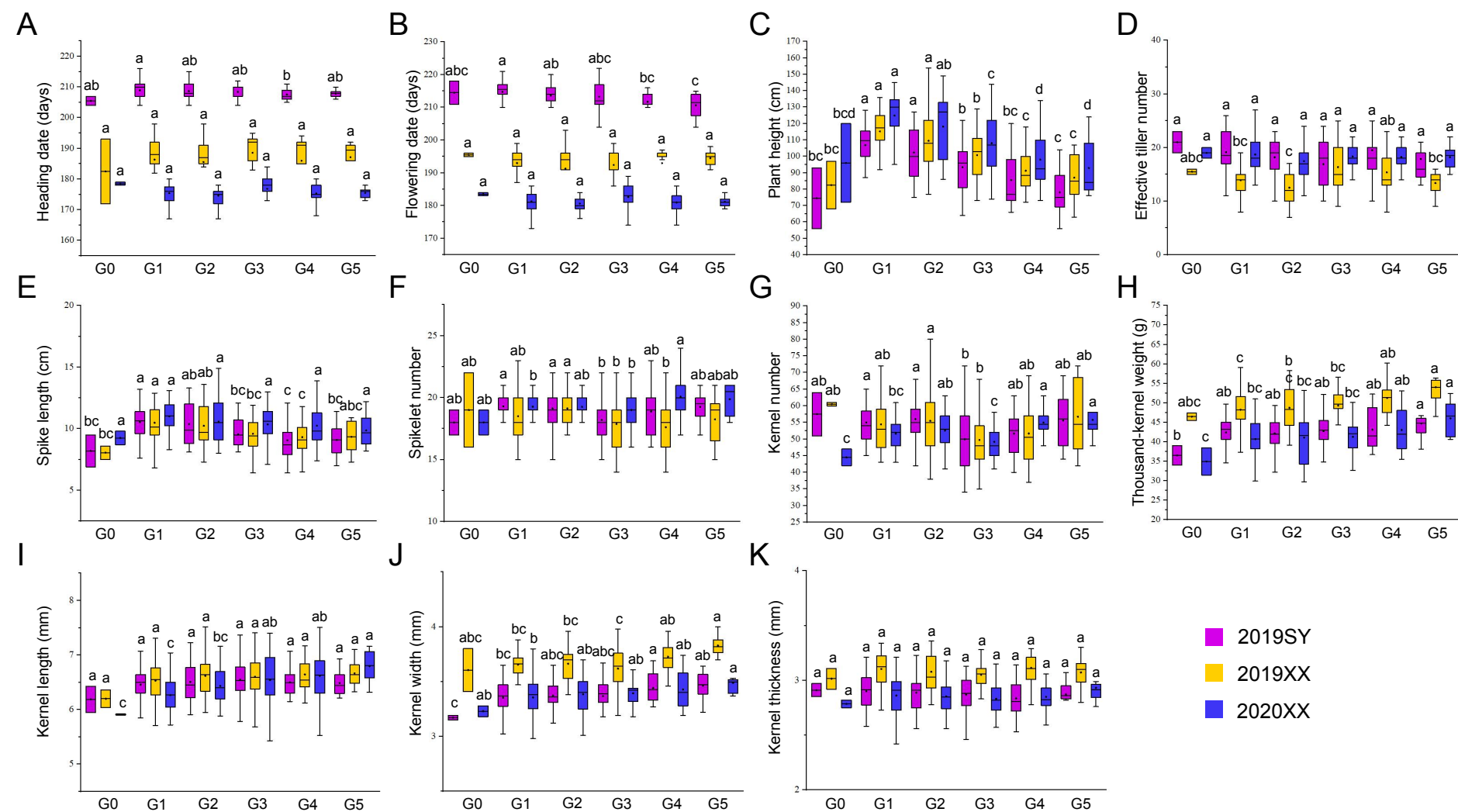




Additional file 19: Fig. S9. Phenotypic difference analysis of 11 agronomic traits in the derivatives of founder parent Abbondanza in multiple environments. Different generations of Abbondanza include the sibling lines (generation zero, G0), first generation (G1), second generation (G2), third generation (G3), fourth generation (G4), and fifth generation (G5). Agronomic traits investigated were heading date (A), flowering date (B), plant height (C), effective tiller number (D), spike length (E), spikelet number (F), kernel number (G), thousand-kernel weight (H), kernel length (I), kernel width (J), and kernel thickness (K). The three growth environments were Shunyi, Beijing in 2019 (2019SY), Xinxiang in Henan province in 2019 (2019XX), and Xinxiang in 2020 (2020XX).