Increasing wheat productivity under heat stress conditions through utilization of wild relatives cytoplasms

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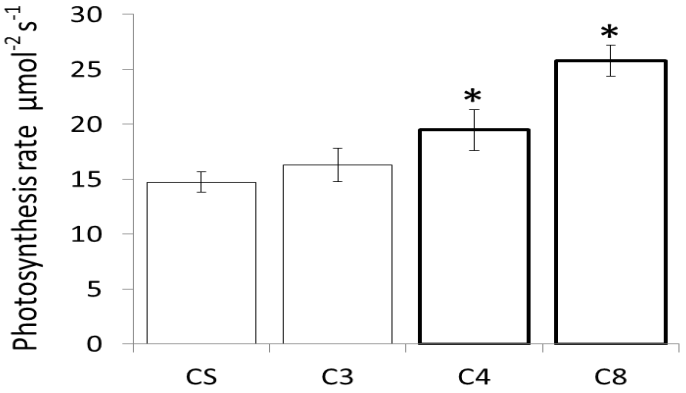
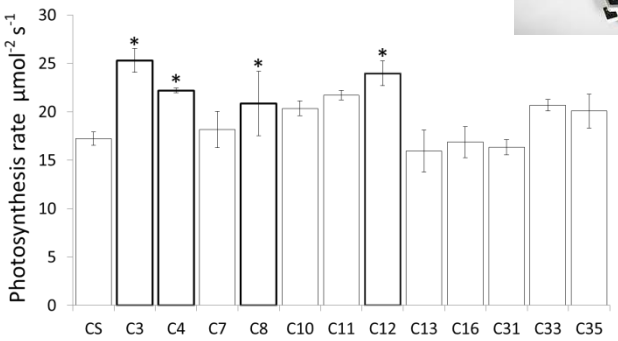
- **Green revolution**
  - ✧ **Inputs responsive dwarf genotypes (High harvest index)**
  - ✧ **Not sustainable**
- **New strategies**
  - ✧ **High biomass (high photosynthesis)**
  - ✧ **Germplasm is limited**
  - ✧ **Cytoplasmic substitution lines**



Materials: 12 cytoplasmic substitution lines

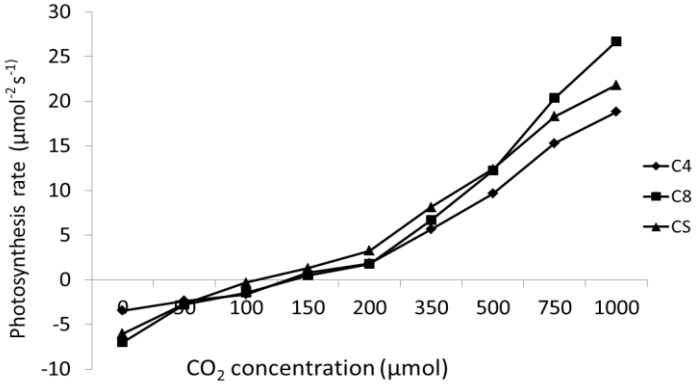
Methods: Seedling stage (Growth chamber,

18 ^{0}C to 38 ^{0}C (5 h) to 18 ^{0}C)



- **C3, C4, C8 and C12 had higher photosynthesis than CS after 3 days heat stress**

- **C4 and C8 had higher photosynthesis than CS after 6 and 9 days heat stress**



- **C8 had better Rubisco activity than CS and C4**