
Oral sessions | Abiotic Stress for Crop Production | O32: Drought Physiology

[O32] Drought Physiology

Chair: Junichi Kashiwagi (Hokkaido University, Japan)

Thu. Sep 9, 2021 2:30 PM - 4:30 PM Room 3 (Oral) (Abiotic Stress for Crop Production)

3:10 PM - 3:25 PM

[O32-03] Potential of Wild Relatives to Improve Wheat Drought Tolerance

(Invited Speaker)

○Masahiro Kishii, Matthew Paul Reynolds (Global Wheat Program, International Maize and Wheat Improvement Center, Mexico)

Wheat wild relatives have very strong drought/heat tolerance and possess unique drought/heat tolerance components that normal cultivated wheat do not have. In the last 30 years, CIMMYT has developed more than 1,500 artificially developed new hexaploid bread wheat (or synthetic wheat) from the crosses between durum wheat and wild species *Aegilops tauschii* (D genome ancestor). Many of synthetic wheat lines have shown improved drought/heat tolerance. Recently, CIMMYT has tried to utilize additional wheat wild species, including various *Aegilops* species, *Leymus*, *Thinopyrum*, rye, barley and others.

These synthetic wheat and wheat-wild species hybrids have been tested in Wheat Physiology group and been utilized for wheat breeding to achieve higher drought and heat wheat cultivars.