Production and Utilization of Synthetic Hexaploid Wheats for Global Biotic/Abiotic Stress Constraints. (C08-mujeebkazi154210-Oral)

Authors:

- A.Mujeeb-Kazi* - *CIMMYT*
- S.Rajaram - *CIMMYT*

Abstract:

Aegilops tauschii (2n=2x=14, DD) accessions constitute a unique source of primary gene pool genetic diversity for wheat improvement. The species distribution provides this germplasm the potential to contribute towards numerous stress constraints that limit wheat production globally. Our major strategy involves crossing elite durum cultivars with the entire Ae. tauschii working collection and generate, as a consequence, synthetic hexaploid (SH) wheats; 950 produced so far. These SH wheats have been screened for various biotic/abiotic stresses from which sub-sets are formed and selected SHs positively utilized in wheat pre-breeding/breeding. Efforts are also underway to transfer D genome diversity to susceptible durum wheats. Gene pyramiding is addressing durability of resistance, while molecular inputs are met by generating doubled haploid based mapping populations. A related strategy for the utilization of the A and B genome accessions is also elucidated.

Corresponding Author Information:

Abdul Mujeeb-Kazi
International Maize and Wheat Improvement Center
Apdo. 370, P.O. Box 60326
Houston, TX 77205
MEXICO

phone: 650-833-6655
fax: 650-833-6656
e-mail: m.kazi@cgiar.org

Presentation Information:

Presentation Date: Wednesday, November 13, 2002
Presentation Time: 2:45 pm

Keywords:

Synthetic wheats, Interspecific hybridization