

Special Issue

Genetics, Genomics and Breeding of Cereals and Grain Legumes

Message from the Guest Editors

Plant scientists currently face three major challenges: continuous population growth, increasing global temperatures, and food insecurity. Plant breeders must establish and utilize novel tools for crop improvement. New breeding technologies and speed breeding can ensure a reliable paced breeding program for any crop. The continued developments in next-generation sequencing technologies, including genomics, transcriptomics, proteomics, and metabolomics, are accelerating the generation of big data. Such data enable plant scientists to understand and explore plant growth and development, nutrient intake and management, resistance to abiotic and biotic stresses, and responses to applied nutrients/chemicals, thus revealing related pathways in more detail and allowing deeper exploration of the genetic factors controlling traits of interest. This Special Issue welcomes submissions related to yield improvement and improving the current understanding of the physiology of cereals and grain legumes under various stresses, as well as those considering limited/access nutrients through the adaption of new breeding technologies, speed breeding, omics technologies, and advanced genetics.

Guest Editors

Prof. Dr. Gyuhwa Chung

Department of Biotechnology, Chonnam National University, Yeosu, Chonnam 59626, Korea

Dr. Muhammad Amjad Nawaz

Laboratory of Supercritical Fluid Research and Application in Agrobiotechnology, The National Research Tomsk State University, 36, Lenin Avenue, 634050 Tomsk, Russia

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Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
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Editor-in-Chief

Prof. Dr. Leslie A. Weston

Gulbali Centre for Agriculture, Water and Environment Research,
Charles Sturt University, Wagga Wagga, NSW 2678, Australia

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