

Special Issue

From Genome to Phenome: A Bridge to Accelerate Adaptation of Crops to Abiotic Stress

Message from the Guest Editors

Plants as sessile organisms are permanently exposed to environmental stimuli. Adverse conditions have become accentuated by global warming, shrinking water supply, and drought intensification. In recent decades, progress in molecular methods has facilitated in-depth investigation of plant genomes, constituting the potential to improve crop breeding processes. Next-generation sequencing and modern phenotyping techniques represent a powerful tool to explore the genetic background of plant phenotype determination under constrained conditions. Furthermore, advanced omics approaches such as genomics, transcriptomics, proteomics, and metabolomics have provided new knowledge about mechanisms of plants' adjustment to changing climate. This Issue will cover crop response to abiotic stress at various levels, considered in relation to plant phenotypic plasticity. Papers centered on association between crop genotypic and phenotypic variation will be of interest. Studies about stress-responsive genes and effect on behavior, molecular breeding, and development of new genetic resources of crops as well as modern phenotyping approaches that may lead to improvement will also be welcomed.

Guest Editors

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About the Journal

Message from the Editor-in-Chief

Plants is an open access journal which provides an advanced forum for research findings in areas related to plant function, its physiology, biology, taxonomy, stresses, and its interactions with other organisms. It publishes original research articles, reviews, reports, conference proceedings (peer reviewed full articles) and communications. In original research papers, it is important that full experimental details are provided. We also encourage timely reviews and commentaries on topics of interest to the plant research community.

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