Special Issue

Biochemical Responses of Horticultural Crops to Abiotic Stresses

Message from the Guest Editors

Abiotic stresses such as drought, waterlogging, extreme temperatures, salinity, nutrient deficiency, agrochemical application, heavy metal toxicity, low and high light intensities, UV light, hypoxia, and pruning can significantly impede plant growth, development, and productivity. Horticultural plants are high-value crops, are grown in diverse environmental conditions, and often experience either individual or combined abiotic stresses. Plants have evolved a series of mechanisms to react to these stresses, such as biochemical responses. These include the activation of antioxidant enzymes. adjustments in water use and nutrient uptake, changes in photosynthetic parameters, the accumulation and degradation of phytochemicals such as antioxidants, osmolytes, and various secondary metabolites, the regulation of biosynthesis of carbohydrates, proteins, lipids, amino acids, and sugars, and alterations in cell wall architecture. This Special Issue of *Plants* is intended to focus on the biochemical responses of horticultural crops to abiotic stresses. Both research and review manuscripts addressing abiotic stress-induced biochemical responses in horticultural crops are welcome.

Guest Editors

Prof. Dr. Dongliang Qiu

College of Horticulture, Fujian Agriculture and Forestry University, Fuzhou 350002, China

Prof. Dr. Jianjun Chen

Mid-Florida Research and Education Center, Environmental Horticulture Department, University of Florida, 2725 S. Binion Road, Apopka, FL 32703, USA

Deadline for manuscript submissions

31 December 2025



Plants

an Open Access Journal by MDPI

Impact Factor 4.1
CiteScore 7.6
Indexed in PubMed



mdpi.com/si/224304

Plants
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
plants@mdpi.com

mdpi.com/journal/ plants





Plants

an Open Access Journal by MDPI

Impact Factor 4.1 CiteScore 7.6 Indexed in PubMed



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.

Editor-in-Chief

Prof. Dr. Dilantha Fernando

Department of Plant Science, University of Manitoba, Winnipeg, MB R3T 2N2, Canada

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), PubMed, PMC, PubAg, AGRIS, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q1 (Plant Sciences) / CiteScore - Q1 (Ecology, Evolution, Behavior and Systematics)

