Special Issue

Navigating Abiotic Stresses: Plant Responses & Management

Message from the Guest Editors

This Special Issue examines the intricate interaction between plants and their environment covering molecular mechanisms, morphological adaptations, and innovative management techniques to enhance plant survival under unfavorable conditions. Abiotic stresses such as drought, salinity, and nutrient deficiencies significantly influence plant growth and productivity. Through a complex pathway of reactions, plants respond to these stressful conditions, i.e., initiating stress perception and triggering a cascade of molecular events, to induce morphophysiological changes.Additionally, this Special Issue explores cutting-edge technologies such as precision farming, genetic engineering, and agronomic techniques, intending to enhance resilience to abiotic stresses. This Special Issue covers original research and review articles on plant response to abiotic stresses. Submissions are invited on (but are not limited to) (1) quantifying the impact of abiotic stresses on plant growth and yield, (2) unraveling key physio-biochemical pathways associated with stress tolerance, and (3) and using novel technologies to protect crops from these stresses.

Guest Editors

Dr. Najeeb Ullah
Agricultural Research Station, Qatar University, Doha, Qatar

Dr. Mohammed Alsafran
Agricultural Research Station, Qatar University, Doha 2713, Qatar

Deadline for manuscript submissions

closed (31 March 2025)

Plants

an Open Access Journal by MDPI

Impact Factor 4.1
CiteScore 7.6
Indexed in PubMed

mdpi.com/si/205821

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

mdpi.com/journal/plants

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)