

Special Issue

Molecular, Biochemical and Developmental Adaptations of Plants Under Abiotic Stress

Message from the Guest Editors

On a global scale, ecosystems have already started to face new challenges due to the impacts of environmental changes. According to predictions, the average global temperature is expected to rise, and certain areas will be exposed to extensive drought periods or intense flooding. Despite their phenotypic plasticity, plants will be exposed to harsh conditions, affecting their life cycles and survival rates. Abiotic stresses will impact agriculturally important plants, affecting the growth and yield of these crops, having potentially tremendous effects on global food supply. This Special Issue of *Plants* will compile research on responsive and adaptation strategies at the molecular, biochemical or developmental level that confer resistance to abiotic stresses. Moreover, potential topics include (but are not limited to) biotechnological approaches used to manipulate endogenous targets or introduce novel characteristics to fortify plants against abiotic challenges. Both original research papers and review articles are welcome.

Guest Editors

Prof. Dr. Polydefkis Hatzopoulos

Laboratory of Molecular Biology, Department of Biotechnology, Agricultural University of Athens, 11855 Athens, Greece

Dr. Konstantinos Koudounas

Laboratory of Agricultural Chemistry, School of Agriculture, Aristotle University of Thessaloniki, 54124 Thessaloniki, Greece

Deadline for manuscript submissions

30 June 2026



Plants

an Open Access Journal
by MDPI

Impact Factor 4.1
CiteScore 8.5
Indexed in PubMed



mdpi.com/si/226208

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

[mdpi.com/journal/
plants](https://mdpi.com/journal/plants)





Plants

an Open Access Journal
by MDPI

Impact Factor 4.1
CiteScore 8.5
Indexed in PubMed



[mdpi.com/journal/
plants](https://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, and 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)