

Special Issue

Molecular and Physiological Mechanisms Regulating Vegetable Crops Growth under Stressful Conditions

Message from the Guest Editors

Vegetable crops are seriously threatened by various stress factors, such as excessive light, extreme temperatures, drought, salinity, waterlogging, heavy metals, and pathogens. Developing vegetable crops with enhanced stress tolerance can help mitigate the harmful effects of these conditions. However, the tolerance phenotypes are generally involved in quantitative traits with interconnecting multiple factors. In addition, various molecular, physiological, and biochemical changes such as gene expression and regulation, protein modification, osmotic stress, oxidative stress, antioxidant enzymes and chemicals, and ROS all contribute to plant acclimation. Therefore, a solid understanding of the molecular and physiology mechanism ranging from stress sensing to cellular responses is essential to improve the stress tolerance of vegetable crops during plant growth and development. The Special Issue of *Plants* will explore recent advances in molecular, physiological, and cellular mechanisms regulating vegetable growth and development under different stressful conditions. We welcome original research articles, communications, perspectives, opinions, and reviews related to the topic.

Guest Editors

Dr. Kwanuk Lee

College of Natural Sciences, Department of Biology, Jeju National University, Jeju, Republic of Korea

Dr. Won-Byoung Chae

School of Environmental Horticulture and Landscape Architecture, Dankook University, Seoul, Republic of Korea

Deadline for manuscript submissions

closed (20 January 2025)



Plants

an Open Access Journal
by MDPI

Impact Factor 4.1
CiteScore 8.5
Indexed in PubMed



mdpi.com/si/179733

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)