

Special Issue

The Unseen Half Under Stress: Roles of Root Along the Soil- Plant-Atmosphere Continuum

Message from the Guest Editor

Roots are the plants primary exchange interface with the soil, determining access to moisture and nutrients. This hidden half contains a complex range of sensing and signaling mechanisms that interact with the shoot, facilitating both active and passive transport of water and mineral elements. In this Research Topic, we welcome submissions of all article types published by MDPI Plants, including original research and reviews that dissect the root-related plant responses to variable stresses. We encourage contributions involving experiments conducted both in the field and under controlled environments, as well as the work involving modeling, experiment-model integration, and meta-analyses. Both fundamental and applied research are welcome, including studies on cultivated crops and agricultural systems. Quantitative studies that report responses of roots to biotic and/or abiotic stresses will be considered relevant if they advance our physiological understanding of these responses.

Guest Editor

Dr. Shuang-Xi Zhou

Department of Biological Sciences, Macquarie University, Sydney, NSW 2113, Australia

Deadline for manuscript submissions

31 January 2026



Plants

an Open Access Journal
by MDPI

Impact Factor 4.1
CiteScore 7.6
Indexed in PubMed



mdpi.com/si/241657

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 7.6
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, 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)