

Special Issue

Mechanisms and Signaling Pathways of Crop Tolerance Under Stressful Conditions

Message from the Guest Editors

External and internal stressful conditions pose a significant challenge to agricultural productivity. External stressors are usually categorized into abiotic and biotic factors, including salinity, drought, waterlogging, extreme temperatures, nutrient deficiencies, pathogens, pests, and weeds. However, some threats originate from plants themselves, such as seed dormancy, photoperiodic response, and aging. Stress tolerance in crops involves a complex interplay of physiological, biochemical, and molecular responses that enable plants to sense signals and responses. Understanding the mechanisms and signaling pathways that confer this tolerance is crucial for developing resilient crop varieties that can maintain yield under adverse conditions. This Special Issue will focus on the mechanisms and signaling pathways of stress tolerance in crops. We welcome original research and review articles on environmental abiotic stress, nutrient deficiencies, pathogens, pests, weeds, seed dormancy, photoperiodic response, and aging, among other topics.

Guest Editors

Dr. Qi Jia

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

Dr. Kai Fan

Key Laboratory of Ministry of Education for Genetics, Breeding and Multiple Utilization of Crops, College of Agriculture, Fujian Agriculture and Forestry University, Fuzhou 350002, China

Deadline for manuscript submissions

31 August 2025



Agronomy

an Open Access Journal
by MDPI

Impact Factor 3.4
CiteScore 6.7



mdpi.com/si/227072

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

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





Agronomy

an Open Access Journal
by MDPI

Impact Factor 3.4
CiteScore 6.7



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



About the Journal

Message from the Editor-in-Chief

Agronomy draws together researchers from diverse areas of agricultural research with a common aim of enhancing agricultural productivity globally. The journal provides unlimited free access to all those interested in advancing agricultural science from both the research and general community. Papers are released immediately after acceptance through the internet.

Agronomy is supported by our authors and their institutes through low article processing charges (APC) for accepted papers. We hope you will support the journal by becoming one of our authors.

Editor-in-Chief

Prof. Dr. Leslie A. Weston

Gulbali Centre for Agriculture, Water and Environment Research,
Charles Sturt University, Wagga Wagga, NSW 2678, Australia

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), PubAg, AGRIS, and other databases.

Journal Rank:

JCR - Q1 (Agronomy) / CiteScore - Q1 (Agronomy and Crop Science)