



Physiological and Molecular Mechanisms of Plant Stress Tolerance

Guest Editors:

Prof. Dr. Mirza Hasanuzzaman

Department of Agronomy,
Faculty of Agriculture, Sher-e-
Bangla Agricultural University,
Dhaka 1207, Bangladesh

Dr. Tika Adhikari

Department of Entomology and
Plant Pathology, North Carolina
State University, 1575 Varsity
Drive, VRB, Module # 6, Raleigh,
NC 27695, USA

Prof. Dr. Luigi Sanita' di Toppi

Department of Biology, University
of Pisa, Via Luca Ghini 13, 56126
Pisa, Italy

Deadline for manuscript
submissions:

closed (31 January 2023)

Message from the Guest Editors

Dear Colleagues,

Ensuring food security for the increasing global population is one of the challenges that must be addressed in the coming decades. Plant biologists and agronomists are the most responsible for the steady improvement of crop production. However, there are several challenges that hinder crop production, including various abiotic (salt, drought, flooding, metal/metalloid toxicity, extreme temperature, etc.) and biotic stresses (weeds, insects, pathogens, etc.). Plants are sessile organisms and cannot avoid such stressors. Plants' survival under adverse environments is dependent on various defense mechanisms. Therefore, understanding such physiological and molecular mechanisms of plant stress tolerance is one of the vital tasks for plant biologists and agronomists. In this Special Issue, we aim to publish research articles and reviews on various aspects of crop responses and tolerance to abiotic and biotic stresses, which will also serve as a foundation for crop production under stressful conditions.





an Open Access Journal by MDPI

Editor-in-Chief

Dr. Monica Ruffini Castiglione

Department of Biology, University of Pisa, Via Luca Ghini 13, I-56126 Pisa, Italy

Message from the Editor-in-Chief

Stresses is an open access international journal publishing top quality research covering all aspects of how humans, animals, plants, algae, fungi, bacteria, and viruses respond to abiotic and biotic stresses. The thinking behind *Stresses* is substantially inspired by the pioneering studies on the effects and responses to various stressors performed by the eminent scientist Hans Selye. Submissions from basic and applied research are welcome, as long as they are based on a clearly defined mechanistic hypothesis. Review manuscripts are encouraged, but they must be a critical review of existing literature and not just a summary. All submitted manuscripts will be subjected to a thorough peer-reviewing process.

Author Benefits

Open Access: free for readers, with **article processing charges (APC)** paid by authors or their institutions.

High Visibility: indexed within **Scopus** and **other databases**.

Rapid Publication: manuscripts are peer-reviewed and a first decision is provided to authors approximately 25.2 days after submission; acceptance to publication is undertaken in 4.1 days (median values for papers published in this journal in the first half of 2025).

Contact Us

Stresses Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/stresses
stresses@mdpi.com