

## Special Issue

# Physiological Mechanisms of Plant Responses to Environmental Stress

### Message from the Guest Editors

Plants are often subjected to various abiotic stresses due to the constantly changing environment. Droughts, floods, extreme temperatures, salinity, and other environmental stressors have been widely reported to cause production losses and even death in plants worldwide. Plants can adapt to environmental changes by altering their morphology and controlling their physiological metabolism. Researchers have made significant advancements in understanding the physiological mechanisms of plant responses to single and combined environmental stresses. This Special Issue aims to present recent advances in the physiological mechanisms of plant responses to environmental stress. In this Special Issue, original research articles and reviews are welcome. Research areas may include but are not limited to the following: Plant adaptation and tolerance to single environmental stress; Physiological mechanisms underlying environmental-stress-induced plant mortality; Physiological mechanisms of plant responses to combined environmental stresses; Effective approaches to enhance plant tolerance to environmental stress; Balanced mechanisms between plant growth and stress response.

### Guest Editors

Dr. Quan Qiu

Dr. Junwen Wu

Dr. Shaohui Fan

Dr. Guanglu Liu

### Deadline for manuscript submissions

closed (30 June 2025)



## Forests

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.5  
CiteScore 4.6



[mdpi.com/si/210445](https://mdpi.com/si/210445)

*Forests*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[forests@mdpi.com](mailto:forests@mdpi.com)

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





# Forests

---

an Open Access Journal  
by MDPI

---

Impact Factor 2.5  
CiteScore 4.6



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



## About the Journal

### Message from the Editor-in-Chief

*Forests* (ISSN 1999-4907) is an international and cross-disciplinary, scholarly forestry journal. The distinguished editorial board and refereeing process ensures the highest degree of scientific rigor and review of all published articles. Original research articles and timely reviews are released online, with unlimited free access. Our goal is to have *Forests* be recognized as one of the foremost publication outlets for high quality, leading edge research in this broad and diverse field. We therefore invite you to be one of our authors, and in doing so share your important research findings with the global forestry community.

---

### Editor-in-Chief

Prof. Dr. Giacomo Alessandro Gerosa

Department of Mathematics and Physics, Catholic University of Brescia,  
I-25121 Brescia, Italy

---

### Author Benefits

#### High Visibility:

indexed within Scopus, SCIE (Web of Science), Ei Compendex, GEOBASE, PubAg, AGRIS, PaperChem, and other databases.

#### Journal Rank:

JCR - Q2 (Forestry) / CiteScore - Q1 (Forestry)

#### Rapid Publication:

manuscripts are peer-reviewed and a first decision is provided to authors approximately 17.1 days after submission; acceptance to publication is undertaken in 2.4 days (median values for papers published in this journal in the first half of 2025).