Special Issue

Tolerance of Horticultural Plants to Abiotic Stresses

Message from the Guest Editors

The capacity of horticultural plants to endure abiotic stresses, such as drought, salinity, extreme temperatures, and heavy metal contamination, is vital for sustaining growth and optimizing productivity. Central tolerance mechanisms, including osmoprotectant accumulation, heightened antioxidant enzyme activity, and ion transport regulation, serve to alleviate stress-induced damage. Moreover, plant hormones, fertilizers, and biostimulants are instrumental in enhancing stress resilience. Recent advances in genomics and metabolomics provide promising strategies for breeding and cultivating stress-tolerant horticultural crops. Investigating the physiological, molecular, and genetic responses of plants to abiotic stresses is imperative for fortifying their resilience and ensuring sustainable productivity. Given the increasing frequency of extreme conditions due to climate change, research in horticultural plant stress tolerance is indispensable for developing resilient crops, safeguarding food security, and advancing sustainable agricultural practices in an evolving environment.

Guest Editors

Dr. Toshik Iarley Da Silva

Center for Agricultural, Environmental, and Biological Sciences, Federal University of Recôncavo of Bahia—UFRB, Campus Universitário, Cruz das Almas 44380-000, Brazil

Dr. Alexandre Maniçoba da Rosa Ferraz Jardim

Department of Biodiversity, Institute of Biosciences, São Paulo State University-UNESP, Av. 24A, 1515, Rio Claro 13506-900, São Paulo, Brazil

Deadline for manuscript submissions

31 December 2025

Horticulturae

an Open Access Journal by MDPI

Impact Factor 3.0
CiteScore 5.1

mdpi.com/si/214766

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

mdpi.com/journal/horticulturae

Horticulturae

an Open Access Journal by MDPI

Impact Factor 3.0
CiteScore 5.1

mdpi.com/journal/horticulturae

About the Journal

Message from the Editor-in-Chief

Horticultural plants and their products provide sustenance, health, and beauty. A confluence of factors is putting increasing pressure on horticultural production to evolve, and innovative research is addressing these challenges. *Horticulturae* provides a venue to communicate research results in a rapid manner with open access, allowing everyone the opportunity to stay abreast of leading research addressing horticulture. I invite you to consider publishing the results of your research in this high quality, peer-reviewed journal.

Editor-in-Chief

Prof. Dr. Luigi De Bellis
Department of Biological and Environmental Sciences and Technologies (DiSTeBA), Salento University, Lecce, Italy

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, FSTA, and other databases.

Journal Rank:

JCR - Q1 (Horticulture) / CiteScore - Q1 (Horticulture)

MDPI