

Special Issue

Breeding for Abiotic Stress Resistance in Crops: Biotechnology and Bioinformatics

Message from the Guest Editor

This Special Issue focuses on the implementation of biotechnological tools and bioinformatic pipelines in innovative breeding strategies for abiotic stress tolerance in crops. This SI will include interdisciplinary studies embracing plant genetic and breeding, genomics and bioinformatics, plant biology and physiology, chemistry, statistics, modeling, and engineering. Manuscripts addressing open questions on plant abiotic stress responses and cutting-edge research on innovative breeding approaches for enhanced abiotic stress tolerance are welcome. Among others, the following themes are warmly encouraged: (a) implementing new crop breeding approaches for abiotic stress tolerance by integrating biotechnological strategies and conventional methods; (b) improving carbon sequestering capacity and climate resilience in plants; (c) genomic-based breeding strategies to improve complex traits; and (d) integrating phenomics and big data analysis to improve crop breeding strategies for enhanced tolerance.

These research articles will cover a broad range of crops. All types of articles, such as original research, opinions, and reviews, are welcome.

Guest Editor

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Deadline for manuscript submissions

closed (10 October 2025)



Agriculture

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Impact Factor 3.6
CiteScore 6.3



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Message from the Editor-in-Chief

Agriculture (ISSN 2077-0472) is an international, scholarly and scientific open access journal publishing peer-reviewed research papers, review articles, communications and short notes that reflect the breadth and interdisciplinarity of agriculture.

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