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 abjotic 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

Prof. Dr. Antonio Di Matteo

Department of Agricultural Sciences, University of Naples Federico II, Via Università 100, 80055 Portici, Italy

Deadline for manuscript submissions

10 October 2025



Agriculture

an Open Access Journal by MDPI

Impact Factor 3.6 CiteScore 6.3



mdpi.com/si/197281

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

mdpi.com/journal/agriculture





Agriculture

an Open Access Journal by MDPI

Impact Factor 3.6 CiteScore 6.3



About the Journal

Message from the Editor-in-Chief

Agriculture (ISSN 2077-0472) is an international, cross-disciplinary and scholarly journal on the science and technology of crop and animal production, and management of the natural resource base for agricultural production. We invite submissions from authors according to the aims and scope of the journal described in more detail on this page. Agriculture is published in an open access format – articles are published on the journal's website immediately after acceptance, giving the scientific community and the public unlimited and free access to the content.

Editor-in-Chief

Prof. Dr. Les Copeland

Sydney Institute of Agriculture, School of Life and Environmental Sciences, The University of Sydney, Sydney, NSW 2006, 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, RePEc, and other databases.

Journal Rank:

JCR - Q1 (Agronomy) / CiteScore - Q1 (Plant Science)

