

Special Issue

Genetic Resources and Breeding of Maize

Message from the Guest Editors

Maize genetic resources are vital for developing resilient varieties capable of withstanding the challenges posed by climate change. These resources contribute to the crop's adaptability and sustainability. As temperatures rise, rainfall patterns shift, and extreme weather events become more frequent, the diversity of maize varieties and their genetic traits provide a foundation for breeding resilient varieties. Maize breeding plays a crucial role in addressing climate change by developing resilient varieties that can withstand environmental stresses, by enhancing food security and increasing crop productivity. Modern maize breeding combines traditional breeding techniques with advanced genetic technologies with aim to create climate-resilient hybrids, pest and disease resistant and with nutritional improvement, as well as application of genomic selection and high-throughput phenotyping. Implementing these techniques and strategies and climate-smart agricultural practices can significantly enhance maize resilience to climate change, ensuring sustainable maize production under changing environmental conditions.

Guest Editors

Dr. Violeta Andjelkovic

Maize Reserach Institute Zemun Polje, Slobodana Bajica 1, 11885
Belgrade, Serbia

Dr. Domagoj Šimić

Department of Maize Breeding and Genetics, Agricultural Institute
Osijek, 31000 Osijek, Croatia

Deadline for manuscript submissions

closed (31 December 2025)



Plants

an Open Access Journal
by MDPI

Impact Factor 4.1
CiteScore 7.6
Indexed in PubMed



mdpi.com/si/234791

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

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





Plants

an Open Access Journal
by MDPI

Impact Factor 4.1
CiteScore 7.6
Indexed in PubMed



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



About the Journal

Message from the Editor-in-Chief

Plants is an open access journal which provides an advanced forum for research findings in areas related to plant function, its physiology, biology, taxonomy, stresses, and its interactions with other organisms. It publishes original research articles, reviews, reports, and conference proceedings (peer reviewed full articles) and communications. In original research papers, it is important that full experimental details are provided. We also encourage timely reviews and commentaries on topics of interest to the plant research community.

Editor-in-Chief

Prof. Dr. Dilantha Fernando
Department of Plant Science, University of Manitoba, Winnipeg, MB
R3T 2N2, Canada

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), PubMed, PMC, PubAg, AGRIS, CAPlus / SciFinder, and other databases.

Journal Rank:

JCR - Q1 (Plant Sciences) / CiteScore - Q1 (Ecology, Evolution, Behavior and Systematics)