

Special Issue

Crop Improvement by Modern Breeding Strategies

Message from the Guest Editors

Accelerating climate change, human population growth, and the degradation of agricultural soils are present-day global challenges that cause food insecurity and necessitate constant innovations in crop improvement. Conventional breeding methods, while foundational, are no longer sufficient to meet the rapidly evolving demands placed on agriculture. The controversy surrounding genetically modified (GM) crops is one of the most contentious debates in modern agriculture, science, and public policy. Critics of genetically modified organisms (GMOs) express concerns about environmental impacts, human health risks, and ethical issues, leading to a polarized public discourse. Although genetic modification holds promise for addressing global food security challenges, these debates highlight the need for transparency and responsible regulation. Therefore, this Special Issue invites research on advanced breeding methods, alongside case studies and practical applications, encouraging readers to engage with the innovative techniques and genetic tools shaping the future of crop improvement, and fostering sustainable and resilient food systems for a growing global population.

Guest Editors

Dr. Tomislav Duvnjak

Dr. Aleksandra Sudarić

Dr. Maja Matoša Kočar

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

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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, 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

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