Special Issue

Advancing Soybean Improvement: Multi-Omics Strategies, Cutting-Edge Techniques and Bioinformatics Innovations

Message from the Guest Editor

This Special Issue focuses on the application of multi-omics approaches and bioinformatics tools in soybean research with the ultimate goal of enhancing soybean improvement efforts. Soybean is one of the most important legume crops, providing a significant source of protein and oil for human and animal consumption. However, soybean production faces numerous challenges, including biotic and abiotic stresses, which can significantly impact yield and quality. This Special Issue aims to highlight the latest advances in multi-omics approaches, including genomics, transcriptomics, proteomics, and metabolomics, and their integration with bioinformatics tools in soybean research. The Special Issue will cover a wide range of topics, including, but not limited to, the identification and functional characterization of genes and pathways associated with important agronomic traits; understanding the molecular mechanisms underlying soybean responses to biotic and abiotic stresses; the exploration of soybean genetic diversity and population genomics; and the utilization of bioinformatics tools for data integration, analysis, and visualization in soybean research.

Guest Editor

Dr. Bahram Samanfar

Agriculture and Agri-Food Canada, Ottawa Research and Development Centre, Ottawa, ON K1A 0C6, Canada

Deadline for manuscript submissions

31 December 2025

Plants

an Open Access Journal by MDPI

Impact Factor 4.1
CiteScore 7.6
Indexed in PubMed

mdpi.com/si/170923

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

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

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, 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)