Special Issue

Evolutionary Mechanisms and Molecular Regulatory Networks of Plant Breeding Systems

Message from the Guest Editor

Plant breeding systems governing sexual reproduction and asexual reproduction are pivotal for plant evolution and crop yields, and their evolutionary and ecological importance has been studied since Darwin. This Special Issue aims to link evolutionary mechanisms with the genetic regulatory networks controlling reproduction processes such as floral development (morphological traits, patterns, and longevity of various floral parts), flower-pollinator interactions, mating strategies, selfincompatibility, sex determination, and so forth. We seek to highlight cutting-edge studies using multi-omics. molecular technologies, and genetics to decode the evolution and regulations of such processes. We solicit papers, including original research and reviews, on the molecular basis of reproductive traits, the genomic signatures of mating and breeding system evolution, and the evolutionary genomics of plant reproduction and evolutionary dynamics. This Special Issue will provide therefore a platform for interdisciplinary research, advancing both plant fundamental knowledge and applied crop breeding strategies.

Guest Editor

Prof. Dr. Xiaokai Ma

Center for Genomics and Biotechnology, Haixia Institute of Science and Technology, School of Future Technology, Fujian Agriculture and Forestry University, Fuzhou 350002, China

Deadline for manuscript submissions

31 July 2026



an Open Access Journal by MDPI

Impact Factor 3.4 CiteScore 6.7



mdpi.com/si/263421

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

mdpi.com/journal/agronomy





an Open Access Journal by MDPI

Impact Factor 3.4 CiteScore 6.7



About the Journal

Message from the Editor-in-Chief

Agronomy draws together researchers from diverse areas of agricultural research with a common aim of enhancing agricultural productivity globally. The journal provides unlimited free access to all those interested in advancing agricultural science from both the research and general community. Papers are released immediately after acceptance through the internet. Agronomy is supported by our authors and their institutes through low article processing charges (APC) for accepted papers. We hope you will support the journal by becoming one of our authors.

Editor-in-Chief

Prof. Dr. Leslie A. Weston

Gulbali Centre for Agriculture, Water and Environment Research, Charles Sturt University, Wagga Wagga, NSW 2678, 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, and other databases.

Journal Rank:

JCR - Q1 (Agronomy) / CiteScore - Q1 (Agronomy and Crop Science)

