

Special Issue

Proteomics Technologies in Crop Improvement Toward Sustainable Agriculture

Message from the Guest Editors

The need for the sustainable production food and responding to a changing climate are driving advances in modern crop breeding programs. Crop domestication has always relied on traditional phenotypic selection to obtain dominant traits, but genomic interventions could accelerate advances in crop improvement. However, linking phenotypes to genotypes remains a significant challenge in the improvement of modern crops. Proteins execute direct biological functions, which require precise localization, the formation of complex high-level structures, post-translational modifications, and interaction with other proteins, which cannot be revealed by gene- and transcription-based studies. Therefore, proteomics plays an important role in deciphering functional mechanisms and enables us to enhance crops. This Special Issue intends to provide novel insights into the application of proteomics technologies in crop improvement toward sustainable agriculture, including multi-omics integration analysis and related research on post-translational proteome modification, and also the exploration of new technologies for proteomics research.

Guest Editors

Prof. Zhiguo E

State Key Laboratory of Rice Biology and Breeding, China National Rice Research Institute, Hangzhou 311400, China

Prof. Dr. Chen Chen

Agricultural College, Yangzhou University, Yangzhou 225009, China

Dr. Lijuan Wu

China National Rice Research Institute, Hangzhou, China

Deadline for manuscript submissions

closed (30 June 2025)



Agronomy

an Open Access Journal
by MDPI

Impact Factor 3.4
CiteScore 6.7



mdpi.com/si/197689

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

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





Agronomy

an Open Access Journal
by MDPI

Impact Factor 3.4
CiteScore 6.7



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



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), GEOBASE, PubAg, AGRIS, and other databases.

Journal Rank:

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