



an Open Access Journal by MDPI

Targeted Rice Improvement through Genome Editing

Guest Editors:

Dr. Gaoneng Shao

State Key Laboratory of Rice Biology and China National Center for Rice Improvement, China National Rice Research Institute, Hangzhou 310006, China

Dr. Shakeel Ahmad

National Center for Genome Editing for Crop Improvement and Human Health, Center for Advanced Studies in Agriculture and Food Security, University of Agriculture Faisalabad, Punjab, Pakistan

Deadline for manuscript submissions: closed (15 February 2023)

Message from the Guest Editors

Rice is one of the most important food crop and is consumed by almost half of the world's population, meaning that more rice needs to be produced to meet demand. Recently, CRISPR–Cas-based gene editing has been developed as a powerful tool and has been ued to improve several rice characteristics, including yield, quality, biotic stress resistance, and abiotic stress tolerance. Gene editing strategies have also rapidly revolutionized in the past ten years due to the targeted knockout of a single or multiple genes by the CRISPR–Cas system, resulting in precise gene editing with base editing or prime editing technology. Interestingly, numerous plant varieties created by gene editing technologies are available for commercial cultivation in some developed countries, implying genome editing systems could be implemented for rice varieties.

This Special Issue, "Targeted Rice Improvement through Genome Editing", encourages the submission of original and/or review articles related to the application of genome editing techniques in rice. Possible targeted traits include grain yield, grain quality and nutrition, and biotic and abiotic stress tolerance.









an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Les Copeland

Sydney Institute of Agriculture, School of Life and Environmental Sciences, The University of Sydney, Sydney, NSW 2006, Australia

Message from the Editor-in-Chief

Agriculture (ISSN 2077-0472) is an international, crossdisciplinary and scholarly journal on the science and technology of crop and animal production, and management of the natural resource base for agricultural production. We invite submissions from authors according to the aims and scope of the journal described in more detail on this page. *Agriculture* is published in an open access format – articles are published on the journal's website immediately after acceptance, giving the scientific community and the public unlimited and free access to the content.

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, RePEc, and other databases.

Journal Rank: JCR - Q1 (Agronomy) / CiteScore - Q1 (Plant Science)

Contact Us

Agriculture Editorial Office MDPI, Grosspeteranlage 5 4052 Basel, Switzerland Tel: +41 61 683 77 34 www.mdpi.com mdpi.com/journal/agriculture agriculture@mdpi.com X@AgricultureMdpi