

## Special Issue

# Advances, Applicability and Challenges in Mutational Breeding

### Message from the Guest Editor

Mutational plant breeding explores spontaneous and induced mutations and, in recent years, site-directed mutagenesis in order to improve the agronomy and quality traits of crop plants and for the innovation of fruit trees, vegetables, and medicinal and ornamental plants. With the arrival of crispr/cas9 and oligonucleotide editing methods, any desired mutation can be tailored from the start. From a European perspective, it is worth noticing that the Nobel-Prize-awarded site-directed mutagenesis technology can finally be used as with any other mutations in crop plant breeding. It is anticipated that many crop plants are already in the pipeline based on these new genomic tools and are ready as pre-breeding lines. It is time to share the research behind these emerging cultivars. With advances in molecular genetic tools such as genomic prediction and whole-genome sequencing, it is possible to join forces with mutational breeding and target quantitative traits to improve crops for the benefit of the environment and of society. In this Special Issue, we invite articles on all aspects of Generation and Evaluation of Random and Designed Mutations in Crop plants.

---

### Guest Editor

Prof. Dr. Søren Kjærsgaard Rasmussen  
Department of Plant and Environmental Sciences, University of  
Copenhagen, Thorvaldsensvej 40, DK-1871 Copenhagen, Denmark

---

### Deadline for manuscript submissions

closed (30 September 2024)



## Agronomy

---

an Open Access Journal  
by MDPI

---

Impact Factor 3.3  
CiteScore 6.2



[mdpi.com/si/196953](https://mdpi.com/si/196953)

*Agronomy*  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[agronomy@mdpi.com](mailto:agronomy@mdpi.com)

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





# Agronomy

---

an Open Access Journal  
by MDPI

---

Impact Factor 3.3  
CiteScore 6.2



[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), PubAg, AGRIS, and other databases.

#### Journal Rank:

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