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

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Deadline for manuscript submissions

closed (30 September 2024)

Agronomy

an Open Access Journal by MDPI

Impact Factor 3.4
CiteScore 6.7

mdpi.com/si/196953

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