Special Issue

Application of Molecular Breeding and Gene Editing Technologies in Brassica Crops

Message from the Guest Editors

Brassica crops play key roles in global agriculture and horticulture. Important abiotic stresses, including drought, heat, cold and salinity, and biotic stresses, such as fungi, viruses, bacteria, nematodes, and insects, cause great damage to these crop's qualitative and quantitative characteristics. To address these challenges, researchers should use modern molecular breeding techniques such as marker-assisted selection (MAS), marker-assisted backcrossing (MABC), marker-assisted recurrent selection (MARS), genome-wide selection (GWS) or genomic selection (GS) to assist in the selection of elite lines which will address these problems. In addition to that, gene editing techniques such as restriction enzymes, zinc finger nucleases, and transcription activator-like effector nucleases, in addition to CRISPR-Cas gene editing and base editing, will be of great help in improving the existing genetic makeup of these plants. These are only several examples of the research topics which will be dealt with in this Special Issue. Researchers are also welcome to submit review papers on the applications of the above topics for the improvement of brassica crops.

Guest Editors

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Deadline for manuscript submissions

closed (30 November 2023)

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Message from the Editor-in-Chief

Horticultural plants and their products provide sustenance, health, and beauty. A confluence of factors is putting increasing pressure on horticultural production to evolve, and innovative research is addressing these challenges. *Horticulturae* provides a venue to communicate research results in a rapid manner with open access, allowing everyone the opportunity to stay abreast of leading research addressing horticulture. I invite you to consider publishing the results of your research in this high quality, peer-reviewed journal.

Editor-in-Chief

Prof. Dr. Luigi De Bellis
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