Special Issue

Genetic Resources and Breeding of Maize

Message from the Guest Editors

Maize genetic resources are vital for developing resilient varieties capable of withstanding the challenges posed by climate change. These resources contribute to the crop's adaptability and sustainability. As temperatures rise, rainfall patterns shift, and extreme weather events become more frequent, the diversity of maize varieties and their genetic traits provide a foundation for breeding resilient varieties. Maize breeding plays a crucial role in addressing climate change by developing resilient varieties that can withstand environmental stresses, by enhancing food security and increasing crop productivity. Modern maize breeding combines traditional breeding techniques with advanced genetic technologies with aim to create climate-resilient hybrids, pest and disease resistant and with nutritional improvement, as well as application of genomic selection and high-throughput phenotyping. Implementing these techniques and strategies and climate-smart agricultural practices can significantly enhance maize resilience to climate change, ensuring sustainable maize production under changing environmental conditions.

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Plants is an open access journal which provides an advanced forum for research findings in areas related to plant function, its physiology, biology, taxonomy, stresses, and its interactions with other organisms. It publishes original research articles, reviews, reports, conference proceedings (peer reviewed full articles) and communications. In original research papers, it is important that full experimental details are provided. We also encourage timely reviews and commentaries on topics of interest to the plant research community.

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