Special Issue

Molecular Breeding for Crop Resistance to Disease and Environmental Stresses

Message from the Guest Editors

Traditional plant breeding has made way for molecular techniques, revolutionizing the development of crops resistant to disease and various environmental stresses. Molecular biology now allows for the precise identification and selection of resistance traits, fundamentally changing breeding strategies. This Special Issue aims to capture the innovative strides made in molecular breeding and genomics to enhance disease resistance and environmental stress tolerance in crops. It seeks to bridge the gap between traditional breeding techniques and modern genomic approaches, presenting a comprehensive view of current achievements and potential avenues for future research. The scope encompasses both applied and fundamental research, targeting the genetic basis of resistance, the development of novel breeding strategies, and the deployment of these resistant varieties in agricultural systems. We seek studies utilizing genomic technologies like next-generation sequencing and genome editing, alongside bioinformatics to unravel plant–pathogen interactions and enhance breeding practices.

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