Special Issue

Advancements in Genotype Technology and Their Breeding Applications

Message from the Guest Editor

The integration of molecular markers has revolutionized the speed and accuracy of plant genetic analysis for the purpose of crop improvement. Systematic data analytics within genotyping approaches—based on principles, applications, and decision scenarios—along with supporting software have revealed that the revolution in genotyping technology has resulted in an explosion of data. This data expansion has driven a breakthrough in integrating artificial intelligence with automation, enabling plant breeders to genotype a large number of samples within a short period of time. This is crucial for implementing genome-wide association studies (GWAS) and genomic selection (GS), paving the way for next-generation breeding programs. This Special Issue focuses on discussing technological advancements associated with breeding during the big data era, including breeding models, genotyping technologies, and future intelligent breeding. Therefore, the articles included will highlight the potential of smart breeding technologies driven by advances in genotyping/sequencing technology along with advanced data analytics tools.

Guest Editor

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Message from the Editor-in-Chief

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