Special Issue

Breeding, Genetics, and Genomics of Fruit Crops

Message from the Guest Editor

The fruit tree crop field is experiencing radical changes thanks to both technical and genetic innovations that are contributing to the production of fruits with improved characteristics. The global demand for fruit tree crops with such improved agronomical and fruit quality traits is increasing rapidly every year. However, genetic improvement by traditional breeding is slow and unpredictable due to the long juvenile phase, high degree of heterozygosity, and polygenic regulation of most agronomical traits. Traditional breeding increases its efficiency when supported by genetic and molecular information using marker-assisted selection (MAS). Advances in DNA-derived data and innovative phenotyping are bridging the genotype-to-phenotype gap in fruit tree crop selection. Developing new genomic-based tools using next-generation sequencing (NGS), high-throughput genotyping technologies, and new breeding techniques (NBT) has expedited the chance for achieving important improved traits. This Special Issue welcomes innovative research focusing on the molecular markers helping breeders toward the definition of novel ideotypes characterized by superior agronomical traits.

Guest Editor

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