Special Issue

Quality Improvement of Fruit Trees: Integrating Omics and Cultivation Techniques

Message from the Guest Editors

Production practices can significantly affect fruit crop quality, including size, shape, color, texture, taste, flavor, and nutritional value. Multi-omic analyses such as epigenomics, genomics, lipidomics, metabolomics, proteomics, and transcriptomics can unravel metabolic networks governing flavor, texture, and nutritional content. Integrating the omic technologies with advanced cultivation practices has emerged as a transformative strategy for improving fruit quality. This approach can decode the molecular bases of fruit quality traits, providing a more comprehensive understanding of how different factors interact to influence fruit quality. Such science-based information can, in turn, optimize production systems and further improve fruit quality traits. With the increasing use of omics for investigating fruit crops, our understanding of how production practices influence fruit quality will continuously improve. Correspondingly, more advanced cultivation practices will be implemented for quality improvement. This Special Issue of Plants will highlight the integration of omics and cultivation techniques, enabling predictive modeling of quality traits under varying conditions.

Guest Editors

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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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