Special Issue

Molecular Regulatory Mechanisms During Fruit Development and Ripening: Implications for Texture and Quality

Message from the Guest Editors

This Special Issue dedicated to advancing our understanding of the Molecular Regulatory Mechanisms During Fruit Development and Ripening.

Fruit development and ripening are complex biological processes influenced by genetic, epigenetic, and environmental factors. Unraveling the molecular networks that regulate these processes is crucial for improving fruit traits such as texture, flavor, nutritional content, and shelf-life. This Special Issue aims to bring together cutting-edge research and reviews that explore the genetic, transcriptomic, proteomic, and metabolomic aspects of fruit biology, with a focus on identifying key regulators and their functional roles.

We welcome original research articles, reviews, and perspectives that address, but are not limited to, the following topics:

- Genetic and epigenetic regulation of fruit ripening;
- Hormonal control of fruit development and texture modification;
- Transcriptomic and proteomic analyses of ripening-related changes;
- Metabolic pathways influencing fruit quality attributes;
- Biotechnological approaches for enhancing fruit shelf-life and quality;
- Environmental and postharvest factors affecting ripening dynamics.

Guest Editors

Dr. Hao Zhang

Dr. Ying Zhang

Dr. Lin Guo

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Horticulturae
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
horticulturae@mdpi.com

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Message from the Editor-in-Chief

Horticultural plants and their products provide sustenance, health, and beauty. A confluence of factors is putting increasing pressure on horticultural production to evolve, and innovative research is addressing these challenges. *Horticulturae* provides a venue to communicate research results in a rapid manner with open access, allowing everyone the opportunity to stay abreast of leading research addressing horticulture. I invite you to consider publishing the results of your research in this high quality, peer-reviewed journal.

Editor-in-Chief

Prof. Dr. Luigi De Bellis
Department of Biological and Environmental Sciences and Technologies (DiSTeBA), Salento University, Lecce, Italy

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