Special Issue

The Molecular Mechanism and Approaches to Break Dormancy in Fruit Trees

Message from the Guest Editor

Fruit production directly depends on flowering success. which in turn depends on climate conditions. Temperate fruit trees have the ability to induce and release/break dormancy. The break of endodormancy demands the long-term accumulation of low temperatures, recorded as chill requirements (CR). Severe effects of climate change on fruit production are projected for warmer regions, in particular around the Mediterranean Sea and Southwestern North America, and more dramatically in South Africa, Southern Australia, and Northern Africa, where most of the required winter chill conditions to release dormancy are projected to be lost. Consequently, breeders are making a big effort to develop new varieties with either lower CR, to combat mild winters, or with higher CR with a late flowering time to combat late frosts. We welcome submissions on topics including (but not limited to): 1. the novel application of agrochemicals to advance or delay dormancy and flowering time; 2. the analysis of transcriptomes; 3. the analysis of metabolomes; 4. epigenetic studies; 5. agronomic practices related to crop productivity under climate change; 6. decision support tools and modeling.

Guest Editor

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Editor-in-Chief

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