

Special Issue

Horticultural Plants Breeding for Abiotic Stress Tolerance

Message from the Guest Editors

Horticultural plants include vegetables, trees, ornamental plants, etc. Global climate change has increased the occurrence frequency of weather extremes, which has aggravated the occurrence of abiotic stresses. Horticultural plants usually suffer different kinds of abiotic stresses, such as heat and cold stress, drought and waterlogging stress, salt, and so on. It is notable that several abiotic stresses can happen simultaneously, a phenomenon known as combined stress. More importantly, the effects of combined stress on horticultural plants cannot be simply concluded by the effects of individual stress. We aim to make explicit the physiological, metabolic, and molecular responses of horticultural plants to complex abiotic stress conditions. The physiological and metabolic response includes photosynthesis, respiration, chlorophyll fluorescence, ROS, enzyme activity, etc. The molecular response can be the regulation of key genes and noncoding RNAs (miRNAs, circRNAs, lncRNAs), etc. Possible approaches such as stress memory and exogenous application of phytohormones on alleviating damage on horticultural plants caused by abiotic stress are also within the scope of this Special Issue.

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