Topical Collection

Propagation and Conservation of Horticultural Plants: In Vitro and In Vivo

Message from the Collection Editors

In vitro and in vivo propagation is practiced all over the world with horticultural plants. Although the automation of bioreactor micropropagation in liquid media has been progressed as a promising way of reducing the cost of propagation, optimal plant propagation depends on a sound understanding of biochemical and physiological responses of the plant to the signals of the culture microenvironment and a standardization of specific chemical and physical culture conditions. Plant tissue culture techniques are entensively employed to rapidly multiply true-to-type plants. Somaclonal variation generally has negative effects on the use of tissue culture propagation. The introduction of molecular biology techniques allows the direct comparison of different genetic material, independent of environmental influences. This Special Issue will provide an in-depth look into the progress of in vitro and in vivo propagation along with the use of molecular markers to address fundamental and practical questions, as well as the employment of molecular markers for the assessment of genetic fidelity, uniformity, stability, and true-to-typeness among donor and micropropagated horticultural plants.

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Agronomy

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Impact Factor 3.4
CiteScore 6.7

mdpi.com/si/74925

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