

Special Issue

Research and Utilization of Plant In Vitro Culture

Message from the Guest Editors

In vitro techniques have significantly contributed to the advancement of agricultural sciences. In addition to their role in fundamental research on plant developmental processes and functional gene studies, in vitro culture techniques enable the mass production and propagation of genetically uniform plant material, as well as the elimination of viruses from infected plant material to obtain high-quality material for nurseries. Moreover, for any plant cell transformation programme, it is essential first to develop a regeneration protocol for the desired genotype. The in vitro culture of plant cells and tissues is a powerful tool for crop improvement programmes, the conservation of the germplasm of vegetatively propagated species, and the protection of endangered plant species.

In this Special Issue, researchers are encouraged to submit original research articles, reviews, and case studies on various plant in vitro culture techniques such as micropropagation, somatic embryogenesis and its applications, germplasm conservation, mutagenesis breeding, protoplast and doubled haploid production, bioreactor innovations, the production of disease-free plants and useful metabolites, etc.

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