

# Special Issue

## In Vitro Propagation and Biotechnology of Horticultural Plants, 2nd Edition

### Message from the Guest Editors

In vitro plant tissue cultures and the recent related biotechnologies are assuming increasing importance, especially in the recent severe climate change scenario, in the propagation of horticultural and ornamental species. The production of plants can be supported by several in vitro approaches, such as the germination of recalcitrant seeds, embryo rescue, somatic embryogenesis and regeneration. Furthermore, micropropagation can be successfully applied to maintain and multiply endemic or rare plants, or plants with unique and peculiar ornamental and/or horticultural characteristics. It is also possible to recover varieties that are disease- and pest-free. The identification of efficient regeneration protocols is required as the first fundamental step to be applied in genome editing approaches, with the scope, for example, to modulate stress resistance genes in vegetable, ornamental or aromatic crops. Histological investigations could also support the macroscopic responses and behaviour of the enhanced plants. The aim of the Special Issue is to report innovative research, tools, approaches and techniques in the applications of in vitro propagation techniques.

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### Guest Editors

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### Deadline for manuscript submissions

closed (30 June 2025)



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## About the Journal

### 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.

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### Editor-in-Chief

Prof. Dr. Luigi De Bellis  
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