

Special Issue

Controlled Environment Agriculture (CEA) for Vegetables, Ornamental and Aromatic Plants

Message from the Guest Editors

CEA manages growth conditions in order to optimize the concentration of high-value phytochemicals, maximize yields, and minimize microbial and insect contamination. CEA has the potential to increase availability, improve quality, and reduce the over-harvesting pressures of vegetables with the use of ornamental and aromatic plants supplying the commercial market, but further research is needed to increase the knowledge about and optimize CEA conditions to improve the growth, production, and chemistry of many vegetable, ornamental, and aromatic plant species. Therefore, this Special Issue aims to gather knowledge on how to enhance the efficiency and quality of vegetables, ornamental, and aromatic plants through plant protected cultivation (CEA). Investigations or reviews on soilless culture systems, bioreactors, hydroponics, aeroponics, fogponics, and any other advanced and controlled system are welcome, unraveling the influences of light, nutrient, water, relative humidity, air or root temperature, CO₂, eustress, and elicitors on the intrinsic characteristics of vegetables, ornamental, and aromatic plants.

Guest Editors

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Deadline for manuscript submissions

closed (30 September 2025)



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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.

Editor-in-Chief

Prof. Dr. Luigi De Bellis

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