Special Issue

Sustainable Practices to Improve Bioactive Compounds in Horticultural Crops

Message from the Guest Editors

The demand for antioxidants, a key category of bioactive compounds, continues to grow due to their ability to protect cells from the oxidative stress caused by reactive oxygen species (ROS). Indeed, to combat ROS and maintain cellular health, plants have developed complex antioxidant networks that include both enzymatic (e.g., superoxide dismutase, peroxidase, catalase) and non-enzymatic (e.g., ascorbic acid, flavonoids, phenolics, carotenoids, tocopherol) mechanisms. Additionally, strategies to enhance the production of bioactive compounds through biotic and abiotic elicitors, such as temperature, drought, salinity, light exposure, and growth regulators, along with genetic manipulations and in vitro methods (e.g., tissue culture), show great promise. Furthermore, "omics" technologies—transcriptomics, proteomics, and metabolomics—could deepen our understanding of bioactive compound production.

We invite the submission of original research papers and reviews that contribute to the understanding and improvement of horticultural crops' bioactive compound production and their applications.

Guest Editors

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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

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