

Special Issue

Optimizing Cultivation Methods and AI-Assisted Approaches for Improved Vegetable Quality

Message from the Guest Editors

Improving vegetable quality has become a key priority in modern horticultural production, cultivation methods such as irrigation management, fertilization strategies, and the use of biostimulants play a fundamental role in shaping crop quality. In parallel, advances in artificial intelligence (AI) and digital technologies are enabling more precise monitoring, analysis, and optimization of crop performance. This Special Issue aims to provide a platform for research focused on improving vegetable quality through both advanced cultivation methods and emerging AI approaches. It will bridge traditional agronomy, food science, and data-driven methodologies, encouraging interdisciplinary contributions. We welcome the submission of original research articles, reviews, and short communications addressing topics such as water and nutrient management, biostimulants, crop management strategies, postharvest quality, processing suitability, bioactive compounds, and AI-assisted modeling or prediction. Studies integrating agronomic practices and AI approaches are particularly encouraged, while contributions that focus on either domain independently are also within the scope of this Special Issue.

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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.

Editor-in-Chief

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