

Special Issue

Volatilome in Horticultural Products: Ecological Interactions, Diseases, and Sensory Quality

Message from the Guest Editors

The volatilome encompasses the set of volatile compounds produced by plant organisms, providing an integrative perspective on the physiological, ecological, and pathological processes that determine the final quality of horticultural products. Throughout production, factors such as plant genetics, associated microbiota, climate conditions, and agronomic practices can significantly alter the composition of these compounds. These alterations influence the sensory quality (aroma and flavor), market value, and consumer acceptance of fruits and vegetables. Additionally, the presence of phytopathogens and the interaction with beneficial microorganisms can trigger specific responses in volatile compound production, affecting both disease resistance and the organoleptic experience of consumers. Advances in analytical and omics techniques (such as gas chromatography–mass spectrometry, electronic noses, and metabolomics) allow for the identification and characterization of these compounds, as well as the examination of their relationships with genetic and environmental factors.

Guest Editors

Dr. Ernesto Oregel-Zamudio
Prof. Dr. Juan Núñez-Farfán
Dr. Jesus Ruben Torres-García

Deadline for manuscript submissions

closed (15 November 2025)



Horticulturae

an Open Access Journal
by MDPI

Impact Factor 3.0
CiteScore 5.1



mdpi.com/si/235155

Horticulturae
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
horticulturae@mdpi.com

[mdpi.com/journal/
horticulturae](https://mdpi.com/journal/horticulturae)





Horticulturae

an Open Access Journal
by MDPI

Impact Factor 3.0
CiteScore 5.1



[mdpi.com/journal/
horticulturae](https://mdpi.com/journal/horticulturae)



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

Prof. Dr. Luigi De Bellis

Department of Biological and Environmental Sciences and
Technologies (DiSTeBA), Salento University, 73100 Lecce, Italy

Author Benefits

Open Access:

free for readers, with article processing charges (APC) paid by authors or their institutions.

High Visibility:

indexed within Scopus, SCIE (Web of Science), PubAg, AGRIS, FSTA, and other databases.

Journal Rank:

JCR - Q1 (Horticulture) / CiteScore - Q1 (Horticulture)