

Special Issue

Plant-Based, Proximal and Remote Sensing in Orchards and Vineyards – State of the Art, Challenges, Data Fusion and Integration

Message from the Guest Editors

Orchard and vineyard management is rapidly changing as we navigate a fast-paced revolution often referred to as Agriculture 4.0.

Plant-based or contact sensing (e.g., trunk and fruit dendrometry, near-infrared and fluorescence spectroscopy) obtains the most accurate information on plants' physiological responses to biotic and abiotic stress at a tree level and on a continuous time scale.

Proximal and remote sensing (e.g., machine vision, LiDAR, multispectral and hyperspectral) from ground or aerial platforms and satellites allows for the collection of larger datasets that can provide more detailed spatial information across orchard blocks. Data fusion and integration from different plant-based, proximal and remote sensors and/or data sources remains a practical challenge, but successful attempts can provide the most consistent and accurate data and information about orchards and vineyards. This Special Issue aims to collect state-of-the-art research on innovative plant-based, proximal and remote sensors used to collect data in orchards and vineyards and on their data fusion and integration to inform orchard management decisions

Guest Editors

Dr. Alessio Scalisi

Dr. Mark Glenn O'Connell

Dr. Ian Goodwin

Deadline for manuscript submissions

closed (30 April 2024)



Horticulturae

an Open Access Journal
by MDPI

Impact Factor 3.0
CiteScore 5.1



mdpi.com/si/124593

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)