

# Special Issue

## Artificial Intelligence in Horticulture Production

### Message from the Guest Editors

The agricultural sector faces huge challenges. So new approaches are needed to optimize resource allocation for precision agriculture, predictable production planning to ensure food security, and autonomous solutions for harvesting, processing and marketing of agricultural products. In this context, data-driven AI offers a wide range of application areas such as crop monitoring to detect diseases, nutrient deficiencies, pests, yield prediction, and price prediction. The papers in this Special Issue on “Artificial Intelligence in Horticulture Production” will focus on basic and applied research targeting AI in all stages of agriculture. This Special Issue will cover many topics, including but not limited to:

AI for smart farming and agriculture;  
AI-assisted automation;  
AI-assisted real-time IoT data analytics;  
Computer vision in agriculture;  
Spatial AI-based agricultural robotics;  
AI-based soil and plant nutrient analysis;  
AI-based crop monitoring;  
AI-assisted intelligent irrigation for agriculture;  
AI-assisted phenotyping and genotyping;  
AI-assisted predictive analytics for agriculture;  
DL for managing security in IoT data processing;  
DL for IoT attack detection and prevention.

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### Guest Editors

Dr. Md Parvez Islam

Prof. Dr. Kenji Hatou

Dr. Xudong Sun

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### Deadline for manuscript submissions

20 December 2025



# Horticulturae

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Impact Factor 3.0  
CiteScore 5.1



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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.

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### Editor-in-Chief

Prof. Dr. Luigi De Bellis  
Department of Biological and Environmental Sciences and  
Technologies (DiSTeBA), Salento University, Lecce, Italy

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