

## Special Issue

# Advances in Sensor Systems and Data Analysis for Crop Phenotyping

### Message from the Guest Editors

In recent years, sensors, machine vision, and automation technology have been widely adopted for large-scale phenotyping data acquisition and processing to augment automation and promote efficiency. Advances in a range of technologies, from sensors to data analysis, combined with system integration and decreasing costs, mean that crop morphology and physiology can be measured non-destructively and repeatedly across populations and throughout the whole growth period. This Special Issue invites submissions addressing sensor systems and data analysis in crop phenotyping. The scope of this Special Issue covers the latest technologies in crop phenotyping for data acquisition, data management, data interpretation, and modeling. **Specific topics of interest include**, but are not limited to, the following:

- Advanced sensors for crop phenotyping;
- Statistics, bioinformatics, machine learning, and deep learning in crop phenotyping;
- Data analysis tools and software for crop phenotyping;
- Data management methodologies and tools for crop phenotyping;
- Plant growth modeling, simulation, visualization, and application;

### Guest Editors

Dr. Lingfeng Duan

1. College of Engineering, Huazhong Agricultural University, Wuhan 430070, China
2. Key Laboratory of Agricultural Equipment for the Middle and Lower Reaches of the Yangtze River, Ministry of Agriculture, Wuhan 430070, China

Dr. Hui Feng

College of Informatics, Huazhong Agricultural University, Wuhan 430070, China

### Deadline for manuscript submissions

closed (31 October 2023)



## Plants

an Open Access Journal  
by MDPI

Impact Factor 4.1  
CiteScore 7.6  
Indexed in PubMed



[mdpi.com/si/140648](https://mdpi.com/si/140648)

*Plants*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[plants@mdpi.com](mailto:plants@mdpi.com)

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





# Plants

---

an Open Access Journal  
by MDPI

---

Impact Factor 4.1  
CiteScore 7.6  
Indexed in PubMed



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



## About the Journal

### Message from the Editor-in-Chief

*Plants* is an open access journal which provides an advanced forum for research findings in areas related to plant function, its physiology, biology, taxonomy, stresses, and its interactions with other organisms. It publishes original research articles, reviews, reports, conference proceedings (peer reviewed full articles) and communications. In original research papers, it is important that full experimental details are provided. We also encourage timely reviews and commentaries on topics of interest to the plant research community.

---

### Editor-in-Chief

Prof. Dr. Dilantha Fernando  
Department of Plant Science, University of Manitoba, Winnipeg, MB  
R3T 2N2, Canada

---

### 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), PubMed, PMC, PubAg, AGRIS, CAPlus / SciFinder, and other databases.

#### Journal Rank:

JCR - Q1 (Plant Sciences) / CiteScore - Q1 (Ecology, Evolution, Behavior and Systematics)