

## Special Issue

# Remote and Proximal Sensing for Plant Research

### Message from the Guest Editors

Modern plant cultivation requires the early revelation of stress changes, which is the basis of effective protection of plants and food security; i.e., cultivation requires the development of methods of remote and proximal sensing of plants. Highly informative optical methods, including hyper- and multispectral, fluorescent, thermal, and RGB imaging, allow obtaining information about the parameters of the plant non-invasively, including in the laboratory, greenhouse, and fields. In the fields, these systems can be based on mobile platforms (wheeled platforms, tractors, UAVs, planes, satellites); handheld equipment can be also used. In greenhouses and laboratories, stationary high-throughput phenotyping systems, combining several types of sensors and providing a study of the large number of parameters of many plants at high speed, can be additionally used for estimation of plant morphological parameters, physiological processes, and biochemical composition. This Special Issue of *Plants* will highlight studies on using spectral, fluorescent, and other methods in remote and proximal sensing of physiological, biochemical, and morphological characteristics of plants.

### Guest Editors

Dr. Oksana Sherstneva

Department of Biophysics, N.I. Lobachevsky State University of Nizhny Novgorod, Nizhny Novgorod 603022, Russia

Dr. Vladimir Sukhov

Department of Biophysics, N.I. Lobachevsky State University of Nizhny Novgorod, Nizhny Novgorod 603022, Russia

### Deadline for manuscript submissions

closed (30 November 2023)



## Plants

an Open Access Journal  
by MDPI

Impact Factor 4.1  
CiteScore 7.6  
Indexed in PubMed



[mdpi.com/si/144156](https://mdpi.com/si/144156)

*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)