

## Special Issue

# Smart Sensor-Based Systems for Crop Monitoring

### Message from the Guest Editor

Precision agriculture systems and technologies are being integrated into applications that support sustainable crop production, primarily through smart sensor-based systems that can assess crop status. This Special Issue invites original research articles, reviews, and perspectives that provide valuable insights into the applications of crop physiology monitoring technologies in precision agriculture, focusing on systems that utilize direct plant feedback for crop growth optimization and health condition assessment. The topics of interest include, but are not limited to:

- Plant physiology status sensors for real-time crop monitoring and automated control;
- Sensor-driven irrigation and nutrient management based on plant physiological status;
- Plant stress detection and early warning systems that use crop physiology monitoring;
- Microcontroller-based systems for crop condition monitoring;
- Machine learning algorithms for plant physiological status data interpretation;
- Decision support systems for comprehensive crop growth status assessment;
- Edge computing solutions for real-time plant physiology status processing and control.

---

### Guest Editor

Dr. Xanthoula Eirini Pantazi

Faculty of Agriculture, Department of Agricultural Engineering, Aristotle University of Thessaloniki, P.O. Box 275, 15424 Thessaloniki, Greece

---

### Deadline for manuscript submissions

31 December 2026



## Agriculture

---

an Open Access Journal  
by MDPI

---

Impact Factor 4.5  
CiteScore 7.8



[mdpi.com/si/245533](https://mdpi.com/si/245533)

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

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





# Agriculture

---

an Open Access Journal  
by MDPI

---

Impact Factor 4.5  
CiteScore 7.8



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



## About the Journal

### Message from the Editor-in-Chief

*Agriculture* (ISSN 2077-0472) is an international, scholarly and scientific open access journal publishing peer-reviewed research papers, review articles, communications and short notes that reflect the breadth and interdisciplinarity of agriculture.

---

### Editor-in-Chief

Prof. Dr. Les Copeland  
Sydney Institute of Agriculture, School of Life and Environmental  
Sciences, The University of Sydney, Sydney, NSW 2006, Australia

---

### 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), GEOBASE, PubAg, AGRIS, RePEc, and other databases.

#### Journal Rank:

JCR - Q1 (Agronomy) / CiteScore - Q1 (Plant Science)