

## Special Issue

# Smart Farming Practices and Technologies for Agricultural Soil Management

### Message from the Guest Editors

Over the past decades, soil degradation, nutrient depletion, and inefficient farming practices have posed critical challenges. In response, the integration of digital technologies into agriculture—commonly referred to as “smart farming”—has emerged as a transformative approach to optimize soil management, enhance productivity, and reduce environmental impact. This Special Issue aims to explore the potential of smart farming practices and innovative technologies in advancing sustainable soil management. We welcome original research and review articles that investigate the role of precision agriculture, data-driven decision-making, and digital tools in improving soil health and agricultural resilience. The scope includes but is not limited to the use of sensors, AI, machine learning, robotics, geospatial technologies, remote sensing and IoT applications in soil monitoring, fertility management, carbon sequestration, and processes that degrade its functions and the services it provides. Contributions focusing on practices and solutions to achieve the United Nations' sustainable development goals and addressing the EU Soil Strategy for 2030 are welcome.

---

### Guest Editors

Dr. Eugenio Cavallo

Institute of Sciences and Technologies for Sustainable Energy and Mobility (STEMS) of the Italian National Research Council (CNR), strada delle Cacce 73, 10135 Torino, Italy

Dr. Marcella Biddoccu

Institute of Sciences and Technologies for Sustainable Energy and Mobility (STEMS) of the Italian National Research Council (CNR), strada delle Cacce 73, 10135 Torino, Italy

---

### Deadline for manuscript submissions

15 February 2026



## Agriculture

---

an Open Access Journal  
by MDPI

---

Impact Factor 3.6  
CiteScore 6.3



[mdpi.com/si/250533](https://mdpi.com/si/250533)

*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 3.6  
CiteScore 6.3



[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, cross-disciplinary and scholarly journal on the science and technology of crop and animal production, and management of the natural resource base for agricultural production. We invite submissions from authors according to the aims and scope of the journal described in more detail on this page. *Agriculture* is published in an open access format – articles are published on the journal's website immediately after acceptance, giving the scientific community and the public unlimited and free access to the content.

---

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

#### Journal Rank:

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