Special Issue

Advances in Soil and Water Sensor Technologies for Precision Agriculture and Environmental Monitoring

Message from the Guest Editors

Recent advancements in soil and water sensor technologies have revolutionized precision agriculture. providing vital tools for efficient resource management and sustainable farming. Historically, precision agriculture has aimed to optimize water use, crop health, and soil conditions. Today, cutting-edge technologies—ranging from soil property estimation sensors to UAV mounted spectral imagers and automated irrigation systems—offer unparalleled insights that can enhance crop yield, reduce water waste, and minimize environmental impact. Key themes include, among others, advanced sensor development for soil and water quality/quantity, the integration of remote sensing and UAVs for large-scale precision agriculture, IoT-enabled sensor networks, automated precision irrigation systems aimed at optimizing water use, data fusion from multiple sensors, machine learning- and Al-driven analytics for sensor data interpretation, and sustainable agriculture practises that leverage sensors to minimize environmental impact.

Guest Editors

Dr. George Arampatzis

Dr. Nikiforos Samarinas

Dr. Sam Ottoy

Deadline for manuscript submissions

25 June 2026



an Open Access Journal by MDPI

Impact Factor 3.4 CiteScore 6.7



mdpi.com/si/223082

Agronomy
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
agronomy@mdpi.com

mdpi.com/journal/agronomy





an Open Access Journal by MDPI

Impact Factor 3.4 CiteScore 6.7



About the Journal

Message from the Editor-in-Chief

Agronomy draws together researchers from diverse areas of agricultural research with a common aim of enhancing agricultural productivity globally. The journal provides unlimited free access to all those interested in advancing agricultural science from both the research and general community. Papers are released immediately after acceptance through the internet. Agronomy is supported by our authors and their institutes through low article processing charges (APC) for accepted papers. We hope you will support the journal by becoming one of our authors.

Editor-in-Chief

Prof. Dr. Leslie A. Weston

Gulbali Centre for Agriculture, Water and Environment Research, Charles Sturt University, Wagga Wagga, NSW 2678, 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, and other databases.

Journal Rank:

JCR - Q1 (Agronomy) / CiteScore - Q1 (Agronomy and Crop Science)

