



## Model-Based Monitoring of Soil Moisture Dynamics in Agriculture

Guest Editor:

**Prof. Dr. Feifei Pan**

Department of Geography and  
the Environment, University of  
North Texas, Denton, TX, USA

Deadline for manuscript  
submissions:

**closed (25 April 2024)**

### Message from the Guest Editor

Tremendous progress has been made in the airborne and spaceborne remote sensing of soil moisture, which is effective, efficient, and less expensive. However, at the current stage of development, it is very difficult to continuously monitor soil moisture from air or space, and remote sensing techniques are only effective in measuring soil moisture in the top thin soil layer (2–5 cm). Numerical simulation is an important approach for monitoring and understating soil moisture dynamics in agricultural fields, and it allows all limitations associated with in-suit, airborne, or spaceborne soil moisture monitoring to be overcome. Therefore, to report the progress made in the model-based monitoring of soil moisture dynamics in agriculture, this Special Issue solicits papers on the latest scientific findings and advances in numerical simulations of soil moisture in agriculture fields at different scales (e.g., point, plot, field, catchment, and watershed) and in the different growth stages of agricultural plants.





an Open Access Journal by MDPI

## 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

## Message from the Editor-in-Chief

*Agriculture* (ISSN 2077-0472) is an international, crossdisciplinary and scholarly open access journal on the science and technology of crop and animal production, and management of the natural resource base for agricultural production. *Agriculture* is published in an open access format – research articles, reviews and other contents are released on the internet immediately after acceptance. The scientific community and the public have unlimited and free access to the content as soon as it is published.

## 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)

## Contact Us

---

Agriculture Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland

Tel: +41 61 683 77 34  
www.mdpi.com

mdpi.com/journal/agriculture  
agriculture@mdpi.com  
X@AgricultureMdpi