# Special Issue

# Applications of Remote Sensing and Machine Learning for Digital Soil Mapping

## Message from the Guest Editors

Soil mapping serves as a fundamental activity underpinning numerous environmental and agricultural endeavors. The integration of machine learning with remote sensing technology offers a groundbreaking alternative, enhancing the precision, efficiency, and scope of soil analyses. The aim of this Special Issue is to demonstrate the enhanced capabilities that machine learning and remote sensing technologies bring to digital soil mapping. It seeks to bridge ML and traditional soil science, fostering a multidisciplinary exchange that elevates our ability to forecast, scrutinize, and manage soil resources with accuracy.

We are soliciting original research articles and reviews covering, but not limited to the following topics:

Integration of machine learning algorithms and remote sensing for soil property prediction

Machine learning approaches for soil classification and taxonomy

Soil spectral library

Proximal, airborne, and satellite remote sensing

Advanced analytics in soil science utilizing big data and artificial intelligence

Case studies demonstrating the impact of these technologies in agricultural and environmental contexts

## Guest Editors

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## Deadline for manuscript submissions

closed (31 May 2025)

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# 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

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