

Special Issue

Advanced Image Collection, Processing, and Analysis in Crop and Livestock Management

Message from the Guest Editors

The integration of imaging technology in agriculture has evolved significantly from basic field photography to sophisticated data collection systems. This Special Issue underscores the value of image-based data in agriculture, providing insights into crop health and livestock management. The focus extends to innovative image analysis techniques that enhance crop and soil monitoring, disease detection, and yield predictions through data from sensors and images. In livestock management, AI-driven image analysis contributes to sophisticated health monitoring and behavioral analytics, enabling strategies such as early illness detection and optimized feeding. The issue further examines the inclusion of RGB, depth, multispectral, and hyperspectral imaging to augment the data quality and utility. Additionally, the value of quick, mobile imaging processes tailored for modern agriculture's fast-paced needs is highlighted, alongside the role of edge-computing in managing the significant 'digitization footprint' that these advanced imaging technologies bring to agricultural management.

Guest Editors

Dr. Weizhen Liang

Panhandle Research and Extension Center, University of Nebraska-Lincoln, Scottsbluff, NE, USA

Dr. Jingqiu Chen

Biological Systems Engineering, College of Agriculture and Food Sciences, Florida A&M University, Tallahassee, FL, USA

Deadline for manuscript submissions

30 September 2025



Agriculture

an Open Access Journal
by MDPI

Impact Factor 3.6
CiteScore 6.3



mdpi.com/si/204040

Agriculture
Editorial Office
MDPI, Grosspeteranlage 5
4052 Basel, Switzerland
Tel: +41 61 683 77 34
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)