

Special Issue

Research Progress in Agricultural Robots in Arable Farming

Message from the Guest Editors

Global population growth, climate change, and labor shortages are reshaping food production. Agricultural robotics—central to smart farming—offers transformative solutions for arable farming through automation, precision, and intelligence. From precision seeding and fertilization to weed detection, crop monitoring, and smart harvesting, robotic systems are revolutionizing the entire production chain. This Special Issue invites submissions on recent advances in agricultural robots for arable farming. Topics include: advanced field sensing, crop phenotyping, weed/pest detection and localization, AI-based decision-making, swarm robotics, and integrated system testing. Contributions should aim to improve the productivity, efficiency, and sustainability of field agriculture.

Guest Editors

Dr. Xianping Guan

Key Laboratory of Modern Agricultural Equipment and Technology,
Ministry of Education, Jiangsu University, Zhenjiang 212013, China

Dr. Wan-Soo Kim

Department of Smart Bio-Industrial Mechanical Engineering,
Kyungpook National University (KNU), Daegu, 80 Daehak-ro, Buk-gu,
Daegu, Republic of Korea

Deadline for manuscript submissions

1 March 2026



Agronomy

an Open Access Journal
by MDPI

Impact Factor 3.4
CiteScore 6.7



mdpi.com/si/246207

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

[mdpi.com/journal/
agronomy](https://mdpi.com/journal/agronomy)





Agronomy

an Open Access Journal
by MDPI

Impact Factor 3.4
CiteScore 6.7



[mdpi.com/journal/
agronomy](https://mdpi.com/journal/agronomy)



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)