

## Special Issue

# Crop Cultivation and Low Carbon Agriculture, 2nd Edition

### Message from the Guest Editors

Agricultural production potentially contributes to increasing global warming due to the substantial amounts of greenhouse gas emissions (GHGs), mainly including CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O. From fertilizer production to food storage and packaging, the global food system is responsible for about one-third of anthropogenic GHGs. Croplands are often intensively managed, thus offering many opportunities to improve practices that can reduce GHGs by optimizing tillage practice, fertilizer application, irrigation, biochar application, and straw management. Mitigating carbon emissions in agriculture by improving crop cultivation technology has garnered massive interest at the environmental science and even industrial levels. Thus, considering the high interest in climate change mitigation and food security, this Special Issue aims to contribute to sustainable agricultural intensification and will cover a wide variety of areas, mainly including the assessment of agricultural carbon emissions from the whole progress or a critical link in the production chain at field scale or regional scale.

### Guest Editors

Dr. Georgios Koubouris

Olive Cultivation Lab, Institute of Olive Tree, Subtropical Crops and Viticulture, Hellenic Agricultural Organization DEMETER, (NAGREF), 73134 Chania, Greece

Dr. Jian-Ying Qi

College of Agriculture, South China Agricultural University, Guangzhou 510642, China

### Deadline for manuscript submissions

closed (30 May 2025)



## Plants

an Open Access Journal  
by MDPI

Impact Factor 4.1  
CiteScore 7.6  
Indexed in PubMed



[mdpi.com/si/216464](https://mdpi.com/si/216464)

*Plants*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[plants@mdpi.com](mailto:plants@mdpi.com)

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





# Plants

---

an Open Access Journal  
by MDPI

---

Impact Factor 4.1  
CiteScore 7.6  
Indexed in PubMed



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



## About the Journal

### Message from the Editor-in-Chief

*Plants* is an open access journal which provides an advanced forum for research findings in areas related to plant function, its physiology, biology, taxonomy, stresses, and its interactions with other organisms. It publishes original research articles, reviews, reports, conference proceedings (peer reviewed full articles) and communications. In original research papers, it is important that full experimental details are provided. We also encourage timely reviews and commentaries on topics of interest to the plant research community.

---

### Editor-in-Chief

Prof. Dr. Dilantha Fernando

Department of Plant Science, University of Manitoba, Winnipeg, MB  
R3T 2N2, Canada

---

### 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), PubMed, PMC, PubAg, AGRIS, CAPlus / SciFinder, and other databases.

#### Journal Rank:

JCR - Q1 (Plant Sciences) / CiteScore - Q1 (Ecology, Evolution, Behavior and Systematics)