

## Special Issue

# Ecophysiological Mechanism and Simulation Model of Plant Phenology in Response to Climatic Change

### Message from the Guest Editors

Plant phenology is an indispensable and important indicator for climate change research. In particular, the improvement of phenology simulation capabilities can significantly improve the accuracy of ecosystem productivity and carbon budget simulation, the ability to prevent agro-meteorological disasters, and the level of climate prediction. However, the existing phenological studies mainly focus on influencing mechanisms from single or a few climatic factors, and the phenological model simulation is insufficient.

The latest research shows that plant phenology is determined by the total climatic production factors determining plant productivity. It is necessary to reveal the mechanism of phenological changes driven by total climatic production factors as well as ecophysiological mechanisms of phenological changes, study the phenological trigger thresholds of total climatic production factors, and develop a new phenological model driven by total climatic production factors. Original research papers are encouraged in this Special Issue. Topics may include (but are not limited to) the ecophysiological mechanism and simulation model of plant phenology in response to climatic change.

---

### Guest Editors

Prof. Dr. Guangsheng Zhou

Chinese Academy of Meteorological Sciences, Beijing 100081, China

Dr. Qijin He

College of Resources and Environmental Sciences, China Agricultural University, Beijing 100193, China

---

### Deadline for manuscript submissions

closed (31 March 2024)



## Agronomy

---

an Open Access Journal  
by MDPI

---

Impact Factor 3.4  
CiteScore 6.7



[mdpi.com/si/156957](https://mdpi.com/si/156957)

*Agronomy*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[agronomy@mdpi.com](mailto: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), GEOBASE, PubAg, AGRIS, and other databases.

#### Journal Rank:

JCR - Q1 (Agronomy) / CiteScore - Q1 (Agronomy and Crop Science)