

## Special Issue

# Drought and Heat Stress Regulation on Crop Development and Yield

### Message from the Guest Editors

Singular and combined abiotic stressors (drought, heat, irradiance) are major limitations affecting crop yields and ultimately the food and nutritional security. Hence, understanding crop responses to combined abiotic stressors is a pre-requisite to develop stress-resilient crops with high yield stability and nutritional quality. Crop plants cope with abiotic stressors by molecular, biochemical, ecophysiological and anatomical changes to mitigate stress effects. This understanding is crucial to device crop improvement strategies. This Focus/Special Issue invites original research articles, opinion papers and short communications on the following topics:

- Impact of abiotic stressors on metabolism and growth rates.
- Adjustments in morpho-anatomical changes under stress environments.
- Enhancement of crop resource use efficiency.
- Use of stable isotopes.
- Rapid high throughput phenotyping screening techniques of aboveground and belowground organs for physiological breeding.

### Guest Editors

Dr. Raju Soolanayakanahally

Saskatoon Research and Development Centre, Agriculture and Agri-Food Canada 107 Science Place, Saskatoon, SK S7N 0X2, Canada

Dr. M. S. Sheshshayee

Department of Crop Physiology, University of Agricultural Sciences, Bangalore 560065, India

### Deadline for manuscript submissions

closed (15 July 2021)



## Agronomy

an Open Access Journal  
by MDPI

Impact Factor 3.4  
CiteScore 6.7



[mdpi.com/si/56128](https://mdpi.com/si/56128)

*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), PubAg, AGRIS, and other databases.

#### Journal Rank:

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