Special Issue

Water Deficit and Its Impact on Crop Yield

Message from the Guest Editors

Water deficit is one of the most devastating abiotic stresses, severely limiting agricultural productivity worldwide. Research has consistently shown that insufficient water supply during specific phases of crop development decreases crop growth, reduces yield, and causes significant economic losses as well as threatened food security. With drought frequency and severity projected to rise under climate change, understanding water deficit impacts has become an important theme in agricultural sciences. The main aim of this Special Issue is to present work on research on the mechanisms, assessment, and management of water deficit stress in crops. This Special Issue may include both general overview papers and original research papers addressing physiological responses; modelling and simulation of yield variability and response under water deficit; remote sensing and data-driven approaches and adaptation strategies at field, regional, and global scales. Through these contributions, this Special Issue seeks to provide insights into sustainable water-use efficiently and improve crop productivity under changing climates.

Guest Editors

Dr. Cristina Patanè

Consiglio Nazionale delle Ricerche (CNR), Istituto per la BioEconomia (IBE), 95126 Catania, Italy

Dr. Nenghan Wan

Department of Agronomy, 2004 Throckmorton Plant Sciences Center, Kansas State University, Manhattan, KS 66506, USA

Deadline for manuscript submissions

30 April 2026

Agronomy

an Open Access Journal by MDPI

Impact Factor 3.4
CiteScore 6.7

mdpi.com/si/257489

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

mdpi.com/journal/agronomy

Agronomy

an Open Access Journal by MDPI

Impact Factor 3.4
CiteScore 6.7

mdpi.com/journal/agronomy

MDPI

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)