Special Issue

Effects of Water Stress and Climate Warming on Crop Growth, Physiology and Yield

Message from the Guest Editor

As precipitation patterns are altered and air temperatures rise due to climate change, maintaining agricultural crop yields is becoming a considerable challenge for many growers around the world, with greater year-to-year variability in yields and profit. How increasing water stress due to regular drought and rising air temperatures will ultimately affect vegetative growth, physiology, and yield is still a largely open question in many regions. This Special Issue will contribute knowledge based on experimental studies, modelling, or reviews to further our understanding of this field. Manuscripts covering a wide range of topics related to crop water stress and/or climate warming are welcome. The evaluated crops may include annual field crops, horticultural crops, or fruit trees. Evaluations integrating various aspects of growth, physiology, and yield or that address water stress in combination with high temperatures are particularly relevant for advancing our scientific knowledge. Novel studies that provide technological solutions to water stress and alleviate high-temperature stress are also suitable for this Special Issue.

Guest Editor

Dr. Peter S. Searles

Centro Regional de Investigaciones Científicas y Transferencia Tecnológica de La Rioja (CRILAR-Provincia de La Rioja-UNLaR-SEGEMAR-UNCa-CONICET), Entre Ríos y Mendoza s/n, Anillaco 5301, La Rioja, Argentina

Deadline for manuscript submissions

30 November 2025

Plants

an Open Access Journal by MDPI

Impact Factor 4.1
CiteScore 7.6
Indexed in PubMed

mdpi.com/si/233219

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

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

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)

MDPI