Special Issue

Interaction between Sugarcane and Environmental Stressors: From Identification to Molecular Mechanism

Message from the Guest Editor

An increase in the vulnerability of crops to a wide range of abiotic and biotic stresses can have a marked influence on the productivity of major crops, especially sugarcane, thereby counteracting the potential to achieve the goal of "ZERO HUNGER" proposed by the FAO-UN. To cope with various stresses, plants have evolved complex rapid responses, but crop efficiency is still severely hampered. The prevailing, alarming climate change scenario and future changing weather provide challenges for the researchers to better understand plant responses thus ultimately enhancing crop yield. Over the past decade, significant progress has been made in deciphering the roles of gene targets and signaling pathways that are involved in stress responses. However, investigations are still required to explore the numerous features of stress responses in sugarcane to create climate-resilient cultivars by balancing the plant growth and defense. Therefore, this Special Issue will highlight the recent advances in the utilization of different conventional and modern biotechnological strategies to better understand the stress adaptation and tolerance mechanisms in sugarcane.

Guest Editor

Prof. Dr. San-Ji Gao

National Engineering Research Center for Sugarcane, Fujian Agriculture and Forestry University, Fuzhou 350002, China

Deadline for manuscript submissions

closed (30 April 2024)



Plants

an Open Access Journal by MDPI

Impact Factor 4.1
CiteScore 7.6
Indexed in PubMed



mdpi.com/si/172770

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



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)

