



plants



an Open Access Journal by MDPI

Effects of Trehalose Biosynthesis on Crop Yield

Guest Editor:

Dr. Cara Griffiths

Department of Plant Sciences,
Rothamsted Research, West
Common, Harpenden AL52JQ,
UK

Deadline for manuscript
submissions:

closed (20 September 2022)

Message from the Guest Editor

Dear Colleagues,

Plant metabolism is highly regulated, and it appears that part of this regulation is modulated through the trehalose pathway. Trehalose regulates metabolism in light of carbon availability and can result in metabolic reprogramming between anabolic or catabolic pathways, as well as the overall regulation of growth and development. The ubiquity of this pathway in plants has been known for the better part of two decades, and for those working on carbon metabolism, it has been a major revelation. Recent studies of the trehalose biosynthesis pathway have uncovered exciting metabolic, genetic, and evolutionary roles of trehalose, and demonstrated huge potential for trehalose metabolism to be a key player in maximizing crop yields and stress resilience. This Special Issue of *Plants* will highlight the function and evolution of trehalose pathway in plants, but also how this pathway is pivotal for shaping future crop yields, resilience, and, ultimately, global food security.



mdpi.com/si/111938

Special Issue



plants



an Open Access Journal by MDPI

Editor-in-Chief

Prof. Dr. Dilantha Fernando

Department of Plant Science,
University of Manitoba, Winnipeg,
MB R3T 2N2, Canada

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.

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 (*Plant Science*)

Contact Us

Plants Editorial Office
MDPI, St. Alban-Anlage 66
4052 Basel, Switzerland

Tel: +41 61 683 77 34
www.mdpi.com

mdpi.com/journal/plants
plants@mdpi.com
[X@Plants_MDPI](https://twitter.com/Plants_MDPI)