



Advances in Biostimulant Use on Horticultural Crops

Guest Editors:

Dr. Mason MacDonald

Department of Plant Food and Environmental Sciences, Faculty of Agriculture, Dalhousie University, Bible Hill, Halifax, NS B2N5E3, Canada

Dr. Lord Abbey

Department of Plant Food and Environmental Sciences, Faculty of Agriculture, Dalhousie University, Bible Hill, Halifax, NS B2N5E3, Canada

Dr. Raphael Ofoe

Department of Plant Food and Environmental Sciences, Faculty of Agriculture, Dalhousie University, Bible Hill, Halifax, NS B2N5E3, Canada

Deadline for manuscript submissions:

closed (30 November 2025)

Message from the Guest Editors

Dear Colleagues,

Biostimulants are an invaluable tool for horticulture, applied to plants with the goal of enhancing certain desirable characteristics regardless of their nutrient content. Specific formulations of biostimulants have the capacity to modify physiological processes that benefit growth, development, and/or stress tolerance. Since the definition focuses on function versus form, many compounds can be classified as biostimulants. Researchers have identified biostimulatory properties from humic substances, composts, natural extracts, peptides, antioxidants, and many other types of compounds. As society faces global threats such as climate change and food insecurity, the role of biostimulants in horticulture is arguably more important now than ever before. The goal of this Special Issue is to consolidate some of the most recent research in horticultural biostimulants. We welcome original research or review papers that discuss the discovery of new biostimulants, the physiological mechanisms of established biostimulants, and the effects of biostimulants on previously untested crops.





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 (Ecology, Evolution, Behavior and Systematics)

Contact Us

Plants Editorial Office
MDPI, Grosspeteranlage 5
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)