



Biostimulant and Biofertilizer Use in Agricultural Systems

Guest Editors:

Prof. Dr. Gustavo Brunetto

Dr. Elena Baldi

**Dr. Paulo Ademar Avelar
Ferreira**

**Prof. Dr. Cláudio Roberto
Fonseca Sousa Soares**

Deadline for manuscript
submissions:
closed (1 March 2024)

Message from the Guest Editors

Dear Colleagues,

The excess use of chemical fertilizers in agriculture to meet increased food demands is having adverse effects on the physico-chemical and biological properties of soil. Moreover, the worsening of soil properties could reduce plant production and food quality. Therefore, in the recent years, several organic fertilizers that act as natural stimulants for plants have been developed. Biofertilizers and biostimulants are substances containing natural derivatives and/or microorganisms that have beneficial effects on plant growth and yield. Microorganisms use several mechanisms to enhance nutrient uptake, improve soil fertility and increase crop yields, such as nitrogen fixation and potassium mechanisms.

The aim of this Special Issue is to present innovative research on the interaction between plants and soil as a consequence of biofertilizers applications. Manuscripts that address the effect of biostimulants or biofertilizer applications on plant performance, soil biodiversity and quality and their interactions in agricultural systems will be considered.





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)