



## The Role of Fertilizers in Boosting Plant Adaptation to Biotic and Abiotic Stresses

Guest Editor:

**Prof. Dr. Arafat Abdel Hamed  
Abdel Latef**

Botany and Microbiology  
Department, Faculty of Science,  
South Valley University, Qena  
83523, Egypt

Deadline for manuscript  
submissions:

**closed (31 October 2023)**

### Message from the Guest Editor

In general, any substance that contributes to the growth of plants and fertility of the planting bed is called a fertilizer. Fertilizers are divided into several general categories including biological, organic, and chemical fertilizers. Biotic and abiotic stresses commonly induce changes in plant performance. However, fertilizers enhance nutrient use efficiency as well as biotic and abiotic stress tolerance in plants.

In this Special Issue, we focus on contributions about the effective techniques to alleviate the destructive effects of biotic and abiotic stressors on plant growth and development, related to, but not exclusively limited to, the following topics:

Physiological, biochemical, and molecular functions of fertilizers in plants to alleviate the detrimental effects of stresses;

Impact of fertilizers on plant development;

Impact of fertilizers on plant–microbe interaction;

Impact of fertilizer application on plant susceptibility to pathogen infection;

Impact of fertilizers on nutrient transformations in soil toward mitigation of stress in plants;

Genetic and epigenetic modifications in plants due to continuous use of fertilizers.





# 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](http://www.mdpi.com)

[mdpi.com/journal/plants](http://mdpi.com/journal/plants)  
[plants@mdpi.com](mailto:plants@mdpi.com)  
[X@Plants\\_MDPI](https://twitter.com/Plants_MDPI)