

## Special Issue

# Applied Biotechnology for Industrial Crop Products

### Message from the Guest Editor

Applied biotechnology can theoretically revolutionize crop production to improve crop traits and their sustainability. However, the use of biotechnology, apart from a few examples, has been underexploited. The array of applications is potentially vast considering the advances in molecular tools such as next generation sequencing, which has made more crop species tractable, and genetic engineering approaches using CRISPR-Cas platforms. Developing food crops with improved nutritional value or changes for the production of pharmaceuticals is highly desired. However, there are many genetic engineering schemes that have industrial applications. These include schemes for the production of biomass which serve as a feedstock for biomaterials (i.e., fuels), the production of biodegradable plastics in plants (i.e., polylactic acid or polyhydroxyalkanoates), as well the production of industrial enzymes for textile or food processing and biomass processing for biofuel production. An important aspect of applied biotechnology is that it can reduce our reliance on chemicals, which have had a track record of damaging the environment and human health.

### Guest Editor

Dr. Dario Bonetta

Faculty of Science, University of Ontario Institute of Technology, 2000 Simcoe St N, Oshawa, ON L1G 0C5, Canada

### Deadline for manuscript submissions

closed (31 October 2024)



## Plants

an Open Access Journal  
by MDPI

Impact Factor 4.1  
CiteScore 7.6  
Indexed in PubMed



[mdpi.com/si/170177](https://mdpi.com/si/170177)

*Plants*  
Editorial Office  
MDPI, Grosspeteranlage 5  
4052 Basel, Switzerland  
Tel: +41 61 683 77 34  
[plants@mdpi.com](mailto:plants@mdpi.com)

[mdpi.com/journal/  
plants](https://mdpi.com/journal/plants)





# Plants

---

an Open Access Journal  
by MDPI

---

Impact Factor 4.1  
CiteScore 7.6  
Indexed in PubMed



[mdpi.com/journal/  
plants](https://mdpi.com/journal/plants)



## 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)