

## Special Issue

# Advances in Genetic Engineering Strategies for Fruit Crop Breeding

### Message from the Guest Editors

Genetic engineering offers important opportunities for fruit crop genetic improvement of agronomic traits relevant for increasing sustainability of the cultivation systems and quality of the products used for fresh and processing industries. This potential presently looks enhanced by the availability of new breeding techniques (RNAi, cisgenesis, and gene editing). Furthermore, the application of RNAi technology in the rootstock offers the possibility to induce modifications in the scion without altering its genome. The main limiting factors for the application of these technologies in fruit crops are the development of efficient methods for direct and Agrobacterium-mediated genetic transformation, such as plant regeneration and selection of new modified events. In addition, the biosafety rules to be applied to new modified fruit plants are not yet fully explored. This Special Issue of *Plants* will highlight the new methods for genetic transformation/gene editing combined with modified plant regeneration and selection, the new type of gene/traits that can be improved, and the appropriate approaches for running the risk and benefits analyses of the new products.

---

### Guest Editors

Prof. Dr. Bruno Mezzetti

Dr. Lorenzo Burgos

Dr. Silvia Sabbadini

---

### Deadline for manuscript submissions

closed (31 July 2020)



## Plants

---

an Open Access Journal  
by MDPI

---

Impact Factor 4.1  
CiteScore 7.6  
Indexed in PubMed



[mdpi.com/si/36003](https://mdpi.com/si/36003)

*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)