

## Special Issue

# Plant Chemistry and Insect Adaptation from Physiology to Ecology

### Message from the Guest Editors

Intraspecific differences in plant chemistry have different impacts on the growth, development and reproduction, and population occurrence and damage of their herbivorous insects. Plant chemistry (e.g., phenols, terpenoids, alkaloids, and glucosinolates), nutrients (including proteins, amino acids, sugars and fatty acid, etc.), and volatile organic compounds (VOCs) in plant tissues can be affected by biotic and/or abiotic factors, in turn affecting the physiological and ecological properties and population dynamics of herbivorous insect pests, causing their adaptation response to the quality and quantity of host plants. In this Special Issue, manuscripts on the plant chemistry of agricultural and horticultural crops, shrubs and trees (including tea plants), and pasture and lawn grasses, and the impacts of plant chemical changes on the growth, development and reproduction, and adaptation of herbivorous insects are welcomed. This issue's goal is to clarify the phenotypes and mechanisms behind the impacts of host plant chemistry on insect adaptation, especially in the current context of climate change.

---

### Guest Editors

Prof. Dr. Fajun Chen

Prof. Dr. Lanzhi Han

Dr. Lei Qian

---

### Deadline for manuscript submissions

closed (30 April 2024)



## Plants

---

an Open Access Journal  
by MDPI

---

Impact Factor 4.1  
CiteScore 7.6  
Indexed in PubMed



[mdpi.com/si/160435](https://mdpi.com/si/160435)

*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, and 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)