



*plants*



an Open Access Journal by MDPI

## Plant Chemistry and Insect Adaptation from Physiology to Ecology

Guest Editors:

**Prof. Dr. Fajun Chen**

Department of Entomology,  
College of Plant Protection,  
Nanjing Agricultural University,  
Nanjing 210095, China

**Dr. Lanzhi Han**

Institute of Plant Protection,  
Chinese Academy of Agricultural  
Sciences, Beijing, China

**Dr. Lei Qian**

Lab of Leisure Entomology,  
Institute of Leisure Agriculture,  
Jiangsu Academy of Agricultural  
Sciences, Nanjing 210014, China

Deadline for manuscript  
submissions:

**closed (30 April 2024)**

### Message from the Guest Editors

Dear Colleagues,

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.



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

# Special Issue



# 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)