



## Plant-Parasitic Nematodes in Horticultural Plants

Guest Editors:

**Dr. Carla Maleita**

Department of Chemical  
Engineering, Chemical  
Engineering and Renewable  
Resources for Sustainability  
(CERES), University of Coimbra,  
3030-790 Coimbra, Portugal

**Dr. Ivânia Esteves**

Department of Life Sciences,  
Centre for Functional Ecology -  
Science for People & the Planet,  
Associate Laboratory Terra,  
Calçada Martim de Freitas,  
University of Coimbra, 3000-456  
Coimbra, Portugal

Deadline for manuscript  
submissions:

**31 December 2024**

### Message from the Guest Editors

Approximately 4100 species of all known nematodes are plant-parasitic nematodes (PPNs) that affect the quality and the quantity of numerous agricultural crops, representing a significant constraint on global food security. When PPNs attack their host, they disrupt its development, which leads to underdeveloped plants, causing a reduction in crop yield. Damage caused by these nematodes has been estimated at USD 80 billion/year. However, this value is likely to be underestimated, as PPNs are small-plant/soil-borne pathogens, and the symptoms that they cause are unspecific, and most of the cultivators are often unaware of their presence.

Current approaches to control PPNs include the use of nematicides and/or unselective pesticides, but many of synthetic chemical nematicides pose serious concerns for human health and environment. To cope with such threat, accurate diagnostic methods for nematode detection and deep understanding about nematode infection processes and their intricate relationships with the host plants are crucial for the development of effective integrated nematode management programs.





# 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)