Special Issue

Plant Nematode Resistance: Molecular Mechanisms, Gene Identification, and Breeding Strategies

Message from the Guest Editor

Parasitic nematodes present significant challenges to crop growth and productivity, representing a serious threat to agricultural sustainability. The phenomenon of plant resistance to these nematodes is complex, involving a wide array of interactions that range from physical barriers to intricate molecular mechanisms. At the molecular level, plants meticulously regulate their gene expression, activating a complex network of signal transduction pathways. These pathways function like conductors, orchestrating the plant's response to the threat of parasitic nematodes. By carefully controlling the expression of numerous genes, plants can establish an advanced defense system that effectively counters these pathogens. We welcome original research papers, perspectives, opinions, and reviews that focus on the molecular mechanisms of plant resistance to nematodes, gene identification, and breeding strategies that help plants fight nematode attacks. By studying these mechanisms in depth, we can ensure more effective disease prevention and control strategies for agricultural production and promote the healthy growth and sustainable development of crops.

Guest Editor

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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

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