Special Issue

Progress and Innovations in Biological Control of Plant-Parasitic Nematodes

Message from the Guest Editors

Plant-parasitic nematodes (PPNs) cause significant damage to crops worldwide, leading to substantial economic losses in agriculture. The management of these nematodes is mainly performed using synthetic chemical nematicides, which pose environmental risks and often result in the development of resistance among nematode populations. As a result, there has been a growing interest in the development and implementation of biological control methods as sustainable alternatives. These alternatives can involve the use of natural enemies, such as nematophagous fungi and bacteria or new resistant plants; discovering mechanisms of resistance is useful for their implementation in susceptible but more profitable species or varieties, phytochemicals, etc. The aim of this Special Issue includes research on the identification and characterization of novel biological control methods, knowledge of the mechanisms underlying their efficacy, and the exploitation of integrated management approaches that combine biological controls with practices regularly used like crop rotations, tillage, etc.

Guest Editors

Prof. Dr. Isabel Conceição

Associate Laboratory TERRA, Department of Life Sciences, Centre for Functional Ecology-Science for People and the Planet (CFE), University of Coimbra, Calçada Martim de Freitas, 3000 456 Coimbra, Portugal

Prof. Dr. Maria José Cunha

Coimbra Agriculture School, Polytechnic University of Coimbra, Bencanta, 3045-601 Coimbra, Portugal

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Editor-in-Chief

Prof. Dr. Leslie A. Weston

Gulbali Centre for Agriculture, Water and Environment Research, Charles Sturt University, Wagga Wagga, NSW 2678, Australia

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