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Nota di contenuto	Contents; Foreword; Preface; Acknowledgements; SECTION I: SETTING THE SCENE; 1 Ecosystem Services and the Concept of 'Integrated Soil Biology Management'; Agriculture from an Ecological Perspective; Biotic Interactions within the Soil Food Web; Biological Control of Plant-parasitic Nematodes; Sustainable Agriculture; Soil Health; The Rise of Conservation Agriculture; Biological Control of Nematodes: Current Status and the Way Forward; Integrated Soil Biology Management; Transferring Ecological Knowledge into Practical Outcomes SECTION II: THE SOIL ENVIRONMENT, SOIL ECOLOGY, SOIL HEALTH AND SUSTAINABLE AGRICULTURE2 The Soil Environment and the Soil-Root Interface; The Process of Soil Formation and the Composition of Soil; Impact of Organic Matter on Soil Properties; The Soil Environment and Its Impact on Nematodes and Other Soil Organisms; The Soil-Root Interface; Implications for Biological Control; 3 The Soil Food Web and the Soil Nematode Community; Major Groups of Organisms in Soil; Structure of the Soil Food Web; Impact of Land Management on Energy Channels within the Soil Food Web Interactions within the Soil Food WebRegulation of Populations by Resource Supply and Predation; Impacts of the Soil Food Web on Ecosystem Processes: Storage and Cycling of Nutrients; The Soil

Nematode Community; Implications for Biological Control; 4 Global Food Security, Soil Health and Sustainable Agriculture; Global Food Security; Sustainable Farming Systems; Soil Health; Ecological Knowledge, Biotic Interactions and Agricultural Management; Integrated Soil Biology Management; Ecologically Based Management Systems and the Role of Farmers; Implications for Biological Control
SECTION III: NATURAL ENEMIES OF NEMATODES
5 Nematophagous Fungi and Oomycetes; Taxonomy, Infection Mechanisms, General Biology and Ecology; Fungal-Nematode Interactions in Soil; Nematophagous Fungi as Agents for Suppressing Nematode Populations; Maximizing the Predacious Activity of Nematophagous Fungi in Agricultural Soils; 6 Nematodes, Mites and Collembola as Predators of Nematodes, and the Role of Generalist Predators; Predatory Nematodes; Microarthropods as Predators of Nematodes; Miscellaneous Predators of Nematodes; Generalist Predators as Suppressive Agents; Concluding Remarks
7 Obligate Parasites of Nematodes: Viruses and Bacteria in the Genus *Pasteuria*
Viral Infectious Agents of Nematodes; Bacteria in the Genus *Pasteuria*; *Pasteuria penetrans*: A Parasite of Root-knot Nematodes (*Meloidogyne* spp.); *Pasteuria* as a Parasite of Cyst Nematodes (*Heterodera* and *Globodera* spp.); *Candidatus Pasteuria usgae* Parasitic on Sting Nematode (*Belonolaimus longicaudatus*); *Pasteuria* as a Parasite of Other Plant-parasitic and Free-living Nematodes; Concluding Remarks; SECTION IV: PLANT-MICROBIAL SYMBIONT-NEMATODE INTERACTIONS
8 Arbuscular Mycorrhizal Fungi, Endophytic Fungi, Bacterial Endophytes and Plant Growth-promoting Rhizobacteria

Sommario/riassunto

Plant-parasitic nematodes are one of multiple causes of soil-related sub-optimal crop performance. This book integrates soil health and sustainable agriculture with nematode ecology and suppressive services provided by the soil food web to provide holistic solutions. Biological control is an important component of all nematode management programmes, and with a particular focus on integrated soil biology management, this book describes tools available to farmers to enhance the activity of natural enemies, and utilize soil biological processes to reduce losses from nematodes.
