

1. Record Nr.	UNINA9910817623903321
Titolo	Below-ground interactions in tropical agroecosystems : concepts and models with multiple plant components // edited by M. van Noordwijk, G. Cadisch, and C.K. Ong
Pubbl/distr/stampa	Wallingford, Oxfordshire, OX ; ; Cambridge, MA, USA, : CABI Pub., c2004
ISBN	1-280-83387-4 9786610833870 0-85199-924-7
Edizione	[1st ed.]
Descrizione fisica	1 online resource (462 p.)
Altri autori (Persone)	NoordwijkMeine van CadischG (Georg) OngC. K
Disciplina	631.4
Soggetti	Plant-soil relationships - Tropics Agricultural ecology - Tropics
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Note generali	Description based upon print version of record.
Nota di bibliografia	Includes bibliographical references (p. 381-428) and index.
Nota di contenuto	Contributors; Foreword; Editors' Introduction; Acknowledgements; 1 Ecological Interactions in Multispecies Agroecosystems: Concepts and Rules; 2 Locally Derived Knowledge of Soil Fertility and Its Emerging Role in Integrated Natural Resource Management; 3 Models of Below-ground Interactions: Their Validity, Applicability and Beneficiaries; 4 Tree Root Architecture; 5 Crop and Tree Root-system Dynamics; 6 Opportunities for Capture of Deep Soil Nutrients; 7 Phosphorus Dynamics and Mobilization by Plants; 8 Managing Soil Acidity and Aluminium Toxicity in Tree-based Agroecosystems 9 Uptake, Partitioning and Redistribution of Water by Roots in Mixed-species Agroecosystems 10 Catching and Competing for Mobile Nutrients in Soils; 11 Below-ground Inputs: Relationships with Soil Quality, Soil C Storage and Soil Structure; 12 Soil-Atmosphere Gas Exchange in Tropical Agriculture: Contributions to Climate Change; 13 Benefiting from N <sub>2</sub> -Fixation and Managing Rhizobia; 14 Managing Mycorrhiza in Tropical Multispecies Agroecosystems; 15 Nematodes

and Other Soilborne Pathogens in Agroforestry; 16 Soil Biodiversity and Food Webs; 17 Managing Below-ground Interactions in Agroecosystems 18 Managing Movements of Water, Solutes and Soil: from Plot to Landscape Scale 19 Soil and Water Movement: Combining Local Ecological Knowledge with that of Modellers when Scaling up from Plot to Landscape Level; 20 Challenges for the Next Decade of Research on Below-ground Interactions in Tropical Agroecosystems: Client-driven Solutions at Landscape Scale; References; Index

---

Sommario/riassunto

This book provides a synthesis of plant-soil interactions in agroforestry, intercropping and grass-legume interactions. It focuses on the process level, which is relevant to many types of multi-species agro-ecosystems. It also links basic research to practical applications in a wide range of systems with or without trees, and considers effects of global change on below-ground interactions.

---