Record Nr. UNINA9910779375603321 Microbial ecology in sustainable agroecosystems / / edited by Tanya E. **Titolo** Cheeke, David C. Coleman, Diana H. Wall Boca Raton, Fla.:,: CRC Press., 2013 Pubbl/distr/stampa **ISBN** 0-429-10478-2 1-4398-5297-9 Descrizione fisica 1 online resource (302 p.) Collana Advances in agroecology Altri autori (Persone) CheekeTanya E <1978-> (Tanya Elizabeth Amy) ColemanDavid C. <1938-> WallDiana H Disciplina 631.4/6 Soggetti Soil microbial ecology Agricultural ecology 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. Nota di contenuto Front Cover; Contents; Foreword; Preface; Acknowledgments; About the Editors; Contributors; Chapter 1: Soil ecology and agroecosystem studies: A dynamic and diverse world; Chapter 2: Manipulation of beneficial microorganisms in crop rhizospheres; Chapter 3: The influence of heterogeneity on soil microbial processes in agroecosystems: Theory, evidence, and opportunities; Chapter 4: Soil food webs in agricultural ecosystems; Chapter 5: Community composition of soil organisms under different wheat-farming systems; Chapter 6: The biological basis for nitrogen management in agroecosystems Chapter 7: The contribution of arbuscular mycorrhizal fungi to the success or failure of agricultural practicesChapter 8: Effects of the cultivation of genetically modified Bt crops on nontarget soil organisms; Chapter 9: Maize legume relay intercrops in Malawi: Meeting short- and long-term sustainability goals; Chapter 10: Making soil biodiversity matter for agriculture: Ecosystem services and challenges

While soil ecologists continue to be on the forefront of research on

biodiversity and ecosystem function, there are few interdisciplinary

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studies that incorporate ecological knowledge into sustainable land management practices. Conventional, high fossil-fuel input-based agricultural systems can reduce soil biodiversity, alter soil community structure and nutrient cycling, and lead to greater dependence on energy-intensive practices. Microbial Ecology in Sustainable Agroecosystems brings together soil ecologists, microbial ecologists, and agroecologists working globally to demonstrate how resea