1. Record Nr. UNINA9910573099303321

Titolo	Enhancing agricultural research and precision management for subsistence farming by integrating system models with experiments / / edited by Dennis J. Timlin, Saseendran S. Anapalli, Lajpat R. Ahuja
Pubbl/distr/stampa	Hoboken, New Jersey : , : Wiley, , [2022] ©2022
ISBN	0-89118-389-2 0-89118-391-4
Descrizione fisica	1 online resource (204 pages)
Collana	Advances in Agricultural Systems Modeling Ser.
Disciplina	630.2515
Soggetti	Agricultural systems - Mathematical models
Lingua di pubblicazione	Inglese
Formato	Materiale a stampa
Livello bibliografico	Monografia
Nota di bibliografia	Includes bibliographical references and index.
Nota di contenuto	Cover -- Title Page -- Copyright Page -- Contents -- Chapter 1 Introduction: System Models Integrated with Experiments Can Be Useful Tools to Develop Improved Management Practices for Subsistence Farming to Address Increased Intensification and Climate Change -- References -- Chapter 2 Modeling Soil Erosion Impacts and Trade-Offs of Sustainable Land Management Practices in the Upper Tana Region of the Central Highlands in Kenya -- Abstract -- Introduction -- Materials and Methods -- Study Site and Farming System Selection -- Household and Biophysical Data Collection -- Baseline Erosion Calculations -- Bio-Economic Modeling with FarmDESIGN -- Inventory and Prioritization of Sustainable Land Management Practices -- Sustainable Land Management Scenario Description -- Results and Discussion -- Soil Quality, Erosion, and N Balances -- GHG Emissions -- Profitability -- Scenario Impacts -- Conclusions -- Acknowledgments -- Abbreviations -- References -- Chapter 3 Using Crop Simulation Models as Tools to Quantify Effects of Crop Management Practices and Climate Change Scenarios on Wheat Yields in Northern Ethiopia -- Abstract -- Introduction -- Materials and Methods -- Study Site -- Model Setup and Agronomic Management Simulation Scenarios -- Simulation Scenarios for Climate Change Risk Assessment -- Results and Discussion -- Effects of Planting Dates -- Effects of Plant Densities