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Nota di contenuto	Front Cover; Contents; Series Preface; Preface; Editors; Contributors; Chapter 1: Energy and Climate Implications for Agricultural Nutrient Use Efficiency; Chapter 2: Nutrient Management for Improved Energy Efficiency; Chapter 3: Using Precision Farming to Overcome Yield-Limiting Factors in Southern Brazil Oxisols: A Case Study; Chapter 4: Collecting and Analyzing Soil Spatial Information Using Kriging and Inverse Distance; Chapter 5: Integration of USDA-NRCS Web Soil Survey and Site Collected Data Chapter 6: Space, Time, Remote Sensing, and Optimal Nitrogen Fertilization Rates: A Fuzzy Logic ApproachChapter 7: Digital Northern Great Plains and Zone Mapping Application for Precision Agriculture; Chapter 8: Spatial Variability of Field Machinery Use and Efficiency ; Chapter 9: Precision Manure Application Requirements; Chapter 10: Case Study for Improving Nutrient Management Efficiency by Optimizing the Plant Population; Chapter 11: Soil Water Status Maps for Variable Rate Irrigation Chapter 12: Maximizing Nutrient Efficiency through the Adoption of

Management Practices That Maintain Soil Organic Carbon: CalcChapter  
13: Predictive Mapping of Soil Organic Carbon: A Case Study Using  
Geographically Weighted Regression Approach; Chapter 14: Tillage and  
Crop Residue Effects on Soil Carbon Turnover Using the Michaelis-  
Menten Approach; Chapter 15: Geospatial Management of Andean  
Technology by the Inca Empire; Chapter 16: Calculating Energy  
Efficiency of Applying Fresh and Composted Manure to Soil  
Chapter 17: Quantifying Greenhouse Gas (CO<sub>2</sub>, CH<sub>4</sub>, and N<sub>2</sub>O) Fluxes  
from Soil in a PastureChapter 18: Improved Nitrogen and Energy-Use  
Efficiency Using NIR-Estimated Soil Organic Carbon and N Simulation  
Modeling; Chapter 19: Computing Wheat Nitrogen Requirements from  
Grain Yield and Protein Maps; Chapter 20: Review of Low- and High-  
Technology Nitrogen Management Approaches for Improved Nitrogen  
Use Efficiency; Chapter 21: Use of GIS-Based Site-Specific Nitrogen  
Management for Improving Energy Efficiency; Chapter 22: Geographic  
Information and the Management of Animal Manure  
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Biomass EnergyChapter 24: Estimating Soil Productivity and Energy  
Efficiency Using the USDA Web Soil Survey, Soil Productivity Index  
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Sommario/riassunto

We are entering a new era in production agronomics. Agricultural scientists the world over call for the development of techniques that simultaneously increase soil carbon storage and reduce agriculture's energy use. In response, site-specific or precision agriculture has become the focus and direction for the three motivating forces that are changing agriculture today: the expanding capacity of personal computers, the molecular biology revolution, and the recent developments in information technology such as the increasing use of geographical information systems (GIS).Using ma

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