

Approaches to Soil Health Analysis, Volume 1

- 1 Soil Health: An Overview and Goals for These Volumes 1
- 2 Evolution of the Soil Health Movement 21
- 3 The Utility and Futility of Soil Health Assessment 49
- 4 Metadata: An Essential Component for Interpreting Soil Health Measurements 70
- 5 Soil Health Assessment of Agricultural Lands 79
- 6 Soil Health Assessment of Forest Soils 100
- 7 A Risk-Based Soil Health Approach to Management of Soil Lead 139
- 8 The Future of Soil Health Assessments: Tools and Strategies 169

Laboratory Methods for Soil Health Analysis, Volume 2

- 1 Laboratory Methods for Soil Health Assessment: An Overview 1
- 2 Sampling Considerations and Field Evaluations for Soil Health Assessment 17
- 3 Soil Organic Carbon Assessment Methods 38
- 4 Water-Stable Soil Aggregate Assessment 52
- 5 Determination of Infiltration Rate and Bulk Density in Soils 69
- 6 Chemical Reactivity: pH, Salinity and Sodicity Effects on Soil Health 78

- 7 Nutrient Availability: Macro- and Micronutrients in Soil Quality and Health 109
- 8 Assessment and Interpretation of Soil-Test Biological Activity 126
- 9 Permanganate Oxidizable Carbon: An Indicator of Biologically Active Soil Carbon 152
- 10 Is Autoclaved Citrate-Extractable (ACE) Protein a Viable Indicator of Soil Nitrogen Availability? 176
- 11 Metabolic Activity – Enzymes 194
- 12 PLFA and EL-FAME Indicators of Microbial Community Composition 251
- 13 Microbial Community Composition, Diversity, and Function 289