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Nota di contenuto	Chapter 1. Soil Analysis: A Relook and Way Forward -- Chapter 2. Application of Statistical Techniques in Soil Research -- Chapter 3. Monitoring and impact assessment of climate change on agriculture using advanced research techniques -- Chapter 4. Advancement in Soil Testing with New Age Sensors: Indian Perspective -- Chapter 5. Isotopes and Tracer Techniques for Soil Analysis -- Chapter 6. Protocols for determination and evaluation of organic carbon pools in soils developed under contrasting pedogenic processes and subjected to varying management situations -- Chapter 7. Analytical strategies for arsenic estimation -- Chapter 8. Approach to Study Clay-Organic Complexes -- Chapter 9. Recent trends in soil salinity appraisal and

management -- Chapter 10. Modern Sample Preparation Techniques for Pesticide Residues Analysis in Soil -- Chapter 11. Characterization of nanomaterials using different techniques -- Chapter 12. Soil Health Assessment -- Chapter 13. Soil health indicators: Methods and applications -- Chapter 14. Indexing methods of soil quality in agroecosystems- An overview of Indian soils and beyond -- Chapter 15. Nanobiosensors: Recent Developments in Soil Health Assessment -- Chapter 16. Forensic Pedology: From Soil Trace Evidence to Courtroom -- Chapter 17. Harnessing soil microbiomes for creating healthy and functional urban landscapes’.

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### Sommario/riassunto

Soil analysis is critically important in the management of soil-based production systems. In the absence of efficient methods of soil analysis our understanding of soil is pure guesswork. Ideally the pro-active use of laboratory analysis leads to more sustainable soil productivity. Unfortunately, most of the world’s agriculture is still reactionary, waiting for obvious yield declines to occur before taking action to identify the reasons. The modern soil laboratory is pivotal to informing soil managers what adaptive practices are needed to address chemical and physical imbalances before they occur, and the intelligent adaptive use of laboratory data not only greatly speeds up and reduces the cost of empirical soil study, but can even render it unnecessary. This book provides a synopsis of the analytical procedures used for soil analysis, discussing the common physical, chemical and biological analytical methods used in agriculture and horticulture. Written by experienced experts from institutions and laboratories around the globe, it provides insights for a range of users, including those with limited laboratory facilities, and helps students, teachers, soil scientists and laboratory technicians increase their knowledge and skills and select appropriate methods for soil analysis.

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