Record Nr. UNINA9910808871703321 Autore Vogt Daniel <1945-> Titolo Soil and plant analysis for forest ecosystem characterization / / by Daniel John Vogt, Joel P. Tilley, Robert L. Edmonds Pubbl/distr/stampa Berlin; Boston:,: Walter de Gruyter GmbH & Co., KG,, [2015] ©2015 **ISBN** 3-11-055450-X 3-11-038176-1 3-11-029047-2 Descrizione fisica 1 online resource (242 p.) Collana Ecosystem science and applications Classificazione ZC 14500 Disciplina 577.3 Soggetti Forest ecology Forest type groups Forest plants Forest soils Soils - Organic compound content Plant communities 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 and subject index. Nota di contenuto Front matter -- Acknowledgments -- Acronyms -- Contents -- List of Tables -- List of Figures -- List of Equations -- Chapter 1. Overview of Soil and Plant Analysis for Forest Ecosystems -- Chapter 2. Field Characterization of Soils to Establish Sampling Protocols -- Chapter 3. Plant Tissue Characterization -- Chapter 4. Introduction: Laboratory Practices -- Chapter 5. Methods for Analyzing Soil Physical Characteristics -- Chapter 6. Soil Chemical Characterization -- Chapter 7. Total Plant and Soil Nutrient Analysis (Digestion) -- Chapter 8. Soil Biology Characterization -- Appendices -- References -- Subject Index Sommario/riassunto This handbook provides an overview of physical, chemical and biological methods used to analyze soils and plant tissue using an ecosystem perspective. The current emphasis on climate change has recognized the importance of including soil carbon as part of our

carbon budgets. Methods to assess soils must be ecosystem based if

they are to have utility for policy makers and managers wanting to change soil carbon and nutrient pools. Most of the texts on soil analysis treat agriculture and not forest soils and these methods do not transfer readily to forests because of their different chemistry and physical properties. This manual presents methods for soil and plant analysis with the ecosystem level approach that will reduce the risk that poor management decisions will be made in forests. This manual was intended for the instructors that teach students soil and plant analyses; however it can also be used by the research laboratories and by environmental scientists. The laboratory procedures in this manual are outlined in easy-to-follow steps and frequently accompanied with examples of calculations, questions to answer, and also a blank data sheet to use. These methods used in this manual can be used on soil and plant tissues found in agricultural, horticulture, forestry, urban, and natural lands.