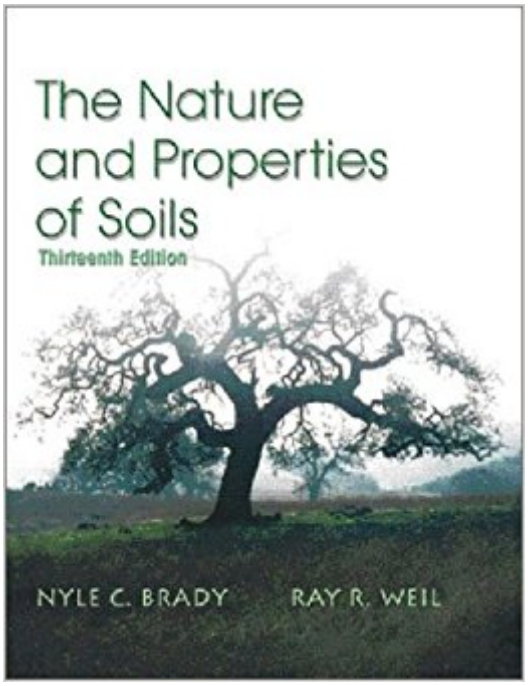
The Nature And Properties Of Soils, 13th Edition



Synopsis

For Introduction to Soils or Fundamentals of Soil Science courses. Also for courses in Soil Fertility, Forest Soils, Soil Management, Land Resources, Earth Science, and Soil Geography.Now in its thirteenth edition, The Nature and Property of Soils is designed to make the study of soils a fascinating and intellectually satisfying undertaking. This, the most widely-used soils textbook in the world, sets world-class standards for soils education. New photographs, diagrams and special "boxes" make the text much more engaging for readers. The text has an ecological approach that explains the fundamental principles of soil science in a manner that is relevant to students in many fields of study.

Book Information

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Customer Reviews

For eighty years, The Nature and Properties of Soils has delivered a complete, current, and reliable introduction to the study of soils in a manner that is both fascinating and intellectually satisfying. Whether used as the core textbook for college courses introducing the fundamentals of soil science, or as a comprehensive reference on the professional soil scientist’s bookshelf, the book is widely recognized as the authoritative source for all of the latest information related to this exciting field. In this same tradition of excellence, this new Thirteenth Edition has been completely updated and expanded to provide fresh and essential new coverage of topics critically important to the future role of soils in natural resource sciences, including wetlands, septic drain fields, salt-affected soils, bioremediation, soil ecology, nutrient and irrigation management, soil hydrology, and new orders in Soil Taxonomy. More specifically, this new volume represents significant expansion to include

valuable information with regard to all of the following:

Soil is one of our most important natural resources. It is at the heart of terrestrial ecology, and an understanding of the soil system is key to the success and environmental harmony of any human use of the land. This book is designed to help make your study of soils a fascinating and intellectually satisfying undertaking. We are confident that much of what you learn will be of enormous practical value in equipping you to meet the many natural-resource challenges of the 21st century. You will soon find that the soil provides many opportunities to see practical applications for principles from the basic sciences of biology, chemistry, and physics. Our priority in this newest edition of The Nature and Properties of Soils is to explain the fundamental principles of soil science in a manner that you will find relevant to your interests. Throughout, the text emphasizes the soil as a natural resource and highlights the many interactions between the soil and other components of forest, range, agricultural, wetland, and constructed ecosystems. We have sought to craft a book that will serve your needs well, whether you expect this to be your only formal exposure to soil science or you are embarking on a comprehensive soil science education. This new book is meant to provide both an exciting, accessible introduction to the fascinating world of soil science and a reliable, comprehensive reference for your professional bookshelf. Readers who have used earlier editions will notice that in order to serve these two functions, the number of pages in the book has increased with the last few editions. Most of this increase (nearly 80%) is attributable to the new photographs, diagrams, and special "boxes" that have made the text so much more engaging to use. About 20% of the increased length has been in the form of additional text, mainly devoted to expanded coverage of topics critically important to the future role of soils in natural-resource sciences, such as wetlands, septic drain fields, salt-affected soils, bioremediation, soil ecology, nutrient and irrigation management, soil hydrology, and new orders in Soil Taxonomy. In a few areas, we have had to reduce the detail to make room for new topics and information. In doing so we have carefully maintained the level of rigor and thoroughness so valued in previous editions. This edition includes new sections on the pedosphere concept, subaqueous soils, ethnopedology, x-ray diffraction, nonsilicate colloids, inner- and outer-sphere complexes, nuclear contamination, effective CEC, the proton-balance approach to soil acidity, acid and nonacid cation saturation, human-influenced acidity, Ca and Mg in plants and soils, irrigation water quality, biomolecule binding, soil food-web ecology, forest nutrient management, the phosphorus site index, lead contamination, indicators of soil quality, and many other topics of current interest in soil science. In response to their popularity in the previous two editions, we have also added many new boxes that

present either fascinating examples and applications or technical details and calculations. These boxes both highlight material of special interest and allow the logical thread of the regular text to flow smoothly without digression or interruption. Examples include the stories of hypoxia or oxygen depletion in nutrient-laden water bodies and of the amelioration of selenium pollution in wetlands. In addition to updating many references, we have added a new feature to this edition, a set of World Wide Web universal resource locators (URLs) set in the margins of the relevant chapter sections. These Web sites, developed by colleagues and organizations around the world, expand and elaborate on certain topics in ways that would not be possible in a printed book. We could not have done all this without the many valuable suggestions, ideas, and corrections sent to us by soil scientists, instructors, and students from around the world. The 13th edition, like preceding editions, has greatly benefited from such contributions. The high level of professional devotion and camaraderie shared by so many students and practitioners of soil science never ceases to inspire us. In addition, we are very grateful for the numerous background papers provided by Joyce Torio of the American Chemical Society, and for the able research, editorial, and clerical assistance that William Luellen, Karen Lowell, Rafiq Islam, Ashley Gaede, and Amy Ennakkache provided for this edition. Special thanks go to the following colleagues who generously reviewed portions of the text in detail and made valuable suggestions for improvement: Bob Ahrens, Susan Davis, Hari Eswaran, Paul Reich, and Sharon Waltman (USDA/Natural Resources Conservation Service); Kudjo Dzantor, Delvin Fanning, Robert Hill, Bruce James, Margaret Mayers Norton, Martin Rabenhorst, and Patricia Steinhilber (University of Maryland); Duane Wolf (University of Arkansas); J. Kenneth Torrence (Carleton University); Jessica Davis (Colorado State University); Dan Towery and Associates (Conservation Tillage Information Center); Harold van Es, Susan Riha, and Martin Alexander (Cornell University); Dan Richter (Duke University); Lee Burras (Iowa State University); Roland Buresh and Pedro Sanchez (International Centre for Research in Agroforestry); Daniel Hillel (University of Massachusetts); Lyle Nelson (Mississippi State University); Jimmie Richardson (North Dakota State University); Darrell Schultze (Purdue University); Murray Milford (Texas A & M University); Rattan Lal (Ohio State University); Mike Swift and Cheryl Palm (UN Tropical Biology Program); Allen Franzluebbers, Jeff Herrick, Scott Lesch, and Jim Rhoades (USDA/Agricultural Research Service); Fred Magdoff and Wendy Sue Harper (University of Vermont); W. Lee Daniels, S. K. de Datta, and Lucian Zelazny (Virginia Tech); Clay Robinson (West Texas A & M University); Russell Briggs (State University of New York); and Tom Siccama (Yale University). Last, but not least, we wish to express our deep appreciation to our wives, Martha and Trish, for their encouragement, understanding, and patience, without which we could not possibly have found the

time and energy required to make such extensive improvements to this textbook. N.C.B. and R.R.W.

WOW! If I had known that this book existed earlier, I could have saved my time and money on all those other books on soil! This text is authoritative, clearly communicated, and covers the whole discipline. So many other books on soil and fertility reek of author's subjective opinion, lack data-driven foundation - many times passing on centuries long old wives tales rather than giving us something scientifically based. Really a great educational tool and reference!

I am familiar with the book since I was an undergraduate student. There is no doubt about the quality of the book itself. However, the book I received today was printed in very poor quality paper. Photos and figures are in colour, but the quality of paper ruin it.

This exhaustive text on soils and their development is surprisingly readable. Maps, pictures and charts are included, and the information is organized in such a way that the non-specialist can easily understand the information presented. My only complaint: the index is incomplete, so it can be difficult to look up specific topics.

If you want to know all about soil this is the book you need! It is well written, intelligently arranged and jam packed with all the knowledge one needs to know about ones yard. farm or neighborhood. I keep it close by for constant reference.

This was much more affordable then the hard back version of the text. The pages are a bit on the thin side so go light on any highlighting. Also, the content of the textbook was the same, but the page numbering was different so make sure if this is for a class, you get the subject titles and do not just follow pages numbers.

As colder weather looms, I have been interested in what goes on underground after harvest in my garden is complete. I found a reference to this book and ordered it especially for the chapters on the biota of soil. I didn't think I was interested in the field of soil science, but was hooked as I got into the book. I don't intend to memorize the technical names of soil types around the world, but I will keep this volume on my shelf. Requires some science background.

Wow. I mean, where do I start? Brady and Weil continue to put out great work. I like how the glossary is in the front of the book. And that about sums it up! THE book for soil scholars.

Great Intro to Soil Management for Resource Managers .

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