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Cover

Irrigated parsley field adjoins a subdivision in California, a scene symbolizing the national challenge to promote protection and orderly development of prime farmland (see page 210). Soil Conservation Service photo by Randy Tindall.

The Soil Conservation Society of America is dedicated to promoting the science and art of good land use, with emphasis on conservation of soil, water, air, and related natural resources, including all forms of beneficial plant and animal life. To this end, SCSA seeks through the *Journal of Soil and Water Conservation* and other programs to educate people so that mankind can use and enjoy these natural resources forever.

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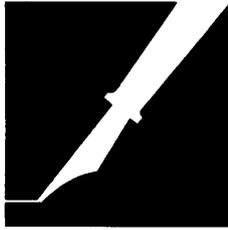
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PEN POINTS

Let contractors do their thing

I was very interested in the "Viewpoint" by Maureen B. Stabile in the May-June [1982] issue [of the *JSWC*] entitled "The Task Ahead for Conservation Districts." One sentence in that article bothered me and that was her reference to "...scheduling earth-moving crews if a technician or board member is unavailable; and managing the district's financial affairs."

I don't think conservation districts have any business scheduling earth-moving crews. They should not have any earth-moving crews that they are employing or managing. If the conservation effort of this country depended upon getting conservation projects accomplished by crews employed by districts, we would never have made the progress that we have in the past 40 years.

There is a private sector of about 40,000 land improvement contractors in the United States, each of whom is prepared to construct the practices that districts should be promoting and encouraging; and we don't need districts competing with the private sector.

The few districts that have done so (in Maryland and New York) have faced strong opposition from our association for this unfair competition, and the Maryland districts are now involved in a lawsuit under the federal antitrust laws. Districts should confine their attention to coordinating, promoting, and encouraging cooperators to have conservation practices developed, then let the private sector and our contractors do the job.

Paul A. Bucha
Land Improvement Contractors
of America
Maywood, Illinois

Keeping the soil "alive"

Ken Cook's recriminations against those alarmed by erosion aside, I wonder if it has occurred to our conservationists, professional and otherwise, that many of them will still be around at the death knell of the last acre of living soil.

I am sure the agriculturalists of Phoenicia, Mesopotamia, Carthage, Athens, Greece, and Rome rationalized quite convincingly the erosion that destroyed what was originally the most fertile land on earth. But the destruction

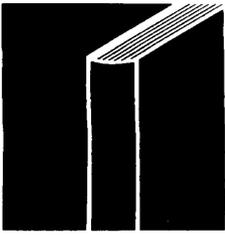
took centuries. The accusing finger disturbs not the dead.

We have accomplished the same in one generation with far less beings sustained per acre of cultivation. Man has learned nothing in 4,000 years. Soil fertility must be maintained by the properly processed manures, not sludge, of the mobile creatures who take sustenance.

If you are born onto this earth and spend your life taking from the bosom of Mother Earth and give nothing in return, you are not man, you are parasite.

I invite our keepers of the soil to join the plus-100-ton club. But you must give up the flush toilet for the waterless vacuum process and let soil-building invertebrates do what the good Lord intended.

Jeremy F. Criss
Sykesville, Maryland



BOOKS, ETC.

Soil Conservation (second edition). By Norman Hudson. 324 pp., illus., apps., index, 1981. Cornell University Press, Ithaca, New York 14850.

Soil Conservation covers the erosion process; the effects of erosion; methods for estimating erosion rates; treatment; research; and social, political, and economic constraints. It is written as a general treatise, valuable both to the student and practicing soil conservationist.

Author Norman Hudson draws from his experience as a researcher, including 13 years in Africa and numerous assignments throughout the world, as well as from his experiences as a teacher at the National College of Agricultural Engineering, Silsoe, Bedfordshire, England. Hudson also relies heavily on interchanges of ideas with fellow researchers and soil conservation workers throughout the world.

The book is organized along the lines of the postgraduate courses in soil conservation that Hudson teaches. The second edition includes information developed on soil conservation since the first edition was published in 1971. It contains 16 sections, 2 appendixes, and subject and name indexes.

Important topics include the interrelations of man, soil, and food production and historical and geographical perspectives on erosion. The mechanics of wind and water erosion are covered, including the history and methods for predicting rates of erosion. The book also contains an excellent discussion on raindrop size, kinetic energy, and runoff as related to erosivity.

Erosion control measures are covered quite well. Hudson's discussion of the place of mechanical and bionomic erosion control methods in the soil conservation realm is outstanding. He states that "mechanical works are not in themselves constructive or productive, but they are nearly always necessary, and where required, they must come first" and "the two kinds of control measures are not alternatives, but are complementary and to be used together, although each serving a separate purpose." This is consistent with his stated objective in the preface—to present the approach that solving soil conservation problems involves common sense and needs the interactive input of all the applied science disciplines having a bearing on erosion control.

The section on research is brief but covers the major factors involved in research activities. He describes how and under

what conditions research information obtained in one location can be used in another, but points out the pitfalls and the need for more nearly site-specific data in the long run.

The section on political, social, and economic constraints to implementing soil conservation programs is discerning and pragmatic. Soil conservation is a good term, but may not win many votes for the politician nor warrant substantial appropriation of funds. A farmer may be willing to install conservation practices, but his economic plight and the risk of a change in production rate may prevent him from doing so. Social pressures and culture play an important part in the acceptance or rejection of new ideas in soil conservation practice.

One need not be a professional engineer or accomplished mathematician to use and profit from the book. Hudson has used maps, photographs, curves, and charts that make the material easily understood and usable. The comprehensive reference sections will allow the reader to pursue any area of interest to the extent desired.

Hudson states that his objectives in writing the book were to (1) present information on soil erosion, (2) show how data from highly capitalized and mechanized agricultural countries can be modified and applied to developing countries, and (3) present techniques of soil conservation for all disciplines. He has met his objectives well.—*RICHARD E. HIGHFILL, Soil Conservation Service, U.S. Department of Agriculture, Washington, D.C. 20013.*

Soil Survey and Land Evaluation. By David Dent and Anthony Young. 278 pp., illus., refs., tpls., apps., index, 1981. Allen & Unwin, Inc., Winchester, Mass. 01890. Hardbound, \$35.00; paperback, \$16.95.

This is a well-organized, concise book describing systems of soil survey and land evaluation and the part they play in resource planning and management. The authors, David Dent and Anthony Young, lecturer in soil science and professor of environmental science, respectively, at the University of East Anglia, Norwich, England, both have international experience in soil survey, teaching, research, and consulting work.

The authors' preface lists the following objectives for their book: "to give a com-

pact summary of techniques and procedures for those actively engaged in soil survey and land evaluation; to provide a basic text for those studying for this profession; and to give an appreciation of the state of the art for land use planners, agronomists, economists, and all who are likely to be involved in commissioning a soil survey or making use of its results." As an introduction to the subject and the processes involved, the book is certainly successful, reflecting the authors' knowledge and experience in the field.

Soil Survey and Land Evaluation should be of considerable interest to professionals everywhere. In areas of the world having active soil survey programs, resource information is generally readily available. The authors, however, do not assume this and begin by discussing the structure and management of a soil survey program. A logical sequence of chapters follows on the use of aerial photography, remote sensing, land evaluation systems, suitability of ratings, and capability classifications. The economics of land evaluation and presentation of results are also covered. The organization and content of the book will be appreciated by professionals working in a consulting capacity.

The text is organized concisely, with tables and diagrams dominating the illustrative material. Most references and site examples are from England, Australia, and Africa. While this in no way reduces their usefulness, it may limit the use of this book as a classroom text in the United States. A benefit of the book is its effect of broadening the American reader by introducing new literature sources.

Soil Survey and Land Evaluation should find a place as a reference for soil scientists, agronomists, planners, engineers, and others involved in land planning and management. Its approach to the subject and content make it especially valuable for those whose interests extend to the less developed areas of the world.—*JOSEPH E. YAHNER, Department of Agronomy, Purdue University, West Lafayette, Indiana 47907.*

The Oceans: Our Last Resource. By Wesley Marx. 332 pp., apps., bibliog., index, 1981. Sierra Club Books, San Francisco, Calif. 94108. \$13.95.

I usually am hesitant to review books that focus on how we have or are going to

ruin the ocean. Authors of such texts often are polarized (as are those who write about the impossibility of damaging the ocean) and resort to listing one horror story of ocean abuse after another. Recent advances in marine science, however, have shown that there are several possible uses of the ocean, including disposal of some waste products, an often acceptable and sometimes even advantageous practice. This is particularly true when there are just two choices—land or ocean disposal.

Marx's book does not take an extreme approach though it certainly stresses the environmental position. The author occasionally makes the ocean more dramatic than it really is. For example, we read that the "ocean teems with life," that "the possibility of a sea-level Panama Canal linking the Caribbean and the Pacific could result in the world's largest exchange of biota," that a "living beach [has] a toughness unmatched in nature," and that "oil deposits...may occur in the deep seabed." There are also descriptions of startling aquaculture projects (that could be economical in the near future, but rarely are). It is too bad that we just can't get rid of the oil-from-the-deep-seabed idea.

Nevertheless, putting these modest excesses aside, this is a good book with some interesting ideas on such subjects as fish management (particularly carp), coastal

zone management, sewage plants, and the law of the sea. Marx develops many of the book's subjects in almost a short story format (of 10 to 30 pages), focussing on specific issues, such as the Irvine Company and its desire to develop parts of Newport Bay. The author also draws on many of his personal experiences in California, a nice touch that I found pleasant to read. *The Oceans: Our Last Resource* is not a reference book. It should be particularly interesting reading, however, for those who have limited knowledge about the ocean and want to learn more.—**DAVID A. ROSS, Marine Policy and Management Program, Woods Hole Oceanographic Institution, Woods Hole, Massachusetts 02543.**

General

Rural Development Perspectives. 47 pp., illus., 1981. RDP-4. Economic Research Service, Washington, D.C. 20250.

Forests

Simulating Timber Management in Lake States Forests. By Gary J. Brand. 25 pp., illus., refs., apps., 1981. General Tech. Rpt. NC-69. North Central Forest Experiment Station, Forest Service, St. Paul, Minn. 55108.

Felling and Bunching Small Timber on Steep Slopes. By Rodger A. Arola, Edwin S. Miyata, John A. Sturos, and Helmut M. Steinhib. 12 pp., illus., tpls., refs., apps., 1981. Res. Paper NC-203. North Central Forest Experiment Station, Forest Service, St. Paul, Minn. 55108.

Forest Vegetation Removal and Slope Stability in the Idaho Batholith. By Donald H. Gray and Walter F. Megahan. 23 pp., illus., refs., tpls., 1981. Paper INT-271. Intermountain Forest and Range Experiment Station, Forest Service, Ogden, Utah 84401.

Remote Automatic Weather Station for Resource and Fire Management Agencies. By John R. Warren and Dale L. Vance. 11 pp., illus., refs., apps., 1981. General Tech. Rpt. INT-116. Intermountain Forest and Range Experiment Station, Forest Service, Ogden, Utah 84401.

Visual Impacts of Forest Management Activities: Findings on Public Preferences. By Robert E. Benson and James R. Ullrich. 14 pp., illus., refs., tpls., 1981. Res. Paper INT-262. Intermountain Forest and Range Experiment Station, Forest Service, Ogden, Utah 84401.

Designing Skid Trail Systems to Reduce Soil Impacts from Tractive Logging Machines. By H. A. Froehlich, D. E. Aulerich, and R. Curtis. 15 pp., refs., tpls., 1981. Res. Paper 44. Forest Research Laboratory, Oregon State University, Corvallis, 97331.

Machines and Techniques for Skyline Yarding of Smallwood. By L. D. Kellogg. 15 pp., illus., refs., tpls., 1981. Res. Bull. 36. Forest Research Laboratory, Oregon State University, Corvallis, 97331.

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A Soil Survey of the Horticultural Soils in the Murrumbidgee Irrigation Areas, New South Wales (revised edition). By B. E. Butler. 80 pp., illus., refs., apps., maps, 1979. Bull. No. 289. ISBS, Inc., Beaverton, Ore. 97075. \$10.95.

Water

Changes in Federal Water Project Repayment Policies Can Reduce Federal Costs. 72 pp., apps., 1981. CED-81-77. U.S. General Accounting Office, Gaithersburg, Md. 20760.

Acidity of Lakes and Impoundments in North-Central Minnesota. By Elon S. Verry. 4 pp., illus., refs., 1981. Res. Note NC-273. North Central Forest Experiment Station, Forest Service, St. Paul, Minn. 55108.

The Kankakee River Yesterday and Today. By J. Loreena Ivens, Nani G. Bhowmik, Allison R. Brigham, and David L. Gross. 24 pp., illus., 1981. ISWS Pub. 60. Illinois Department of Energy and Natural Resources, Springfield, 62706.

mass of soil.

acid mine drainage: Drainage discharged from an active, inactive, or abandoned mining operation containing free sulfuric acid, mainly due to iron pyrites, and

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acid precipi-

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See also

materia.

acre-foot:

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foot (43,560

meters).

acre-inch:

The volume of water or solids

that will cover one acre to a depth of one

inch (3,630 cubic feet or 102.7 cubic

meters).

form of carbon, used to remove odor and toxic substances from gaseous emissions.

activated sludge: Sludge that has been subjected to bacterial action.

adsorption: The process of hasten break-

raw sewage treatment.

anaerobic: Undergone a time (the

be subject to

of recreation facility or area

artificially: The use

by livestock

out reference

led use; usu-

animal unit

fect that is

od of time,

ugh the ef-

red is more

e toxicity is

armful bio-

result. See

acidity.

additive (in): The com-

posed toxic effects of more than one pollutant, acting together or independently, to cause a total response equal to the sum of the separate reactions.

adequate-size farm: A farm with re-

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