January-February 1983
Volume 38, Number 1

CONTENTS

Features

4 Viewpoint: In defense of farmland
Douglas P. Wheeler and Stephen F. Harper argue that future uncertainty necessitates farmland protection policy

5 SCSA goes to Washington
Norman Berg talks about his new role as SCSA's Washington, D.C., representative

7 Land productivity and agricultural technology
Chris Elfring reviews a study by the Office of Technology Assessment on the sustainability of American agriculture's natural resource base

10 The basis for soil loss tolerances
D. L. Schertz looks at the assumptions and controversies underlying present "T" values

15 Soil conservation and water quality improvement: What farmers think
Lee A. Christensen and Patricia E. Norris explore what research tells about farmers' attitudes toward conservation practices

Research reports

39 Productivity of soils: Assessing long-term changes due to erosion
F. J. Pierce, W. E. Larson, R. H. Dowdy, and W.A.P. Graham

45 Water storage capacity of natural wetland depressions in the Devils Lake Basin of North Dakota
Albert P. Ludden, Dale L. Frink, and Douglas H. Johnson

48 Effect of terraces on soil loss: USLE P factor values for terraces
G. R. Foster and R. E. Highfill

52 A test for inequity in river recreation reservation systems
John H. Schomaker and Earl C. Leatherberry

56 Forage yield and quality on Kentucky surface mine spoils
Donald S. Henry

58 Record dust storms in Illinois: Causes and implications
Stanley A. Changnon, Jr.

Departments

2 Pen points

33 In the news

37 Upcoming

38 Books, etc.

Cover
Like all wildlife, this snowy owl is a product of the land and benefits from good land and water management (see page 23). A National Film Board of Canada photo taken near Calgary, Alberta, by T. Fitzharris.
Stoking the political fires

Your September/October issue was an exceptionally interesting one. You are at long last providing a better balance between articles having a broad interest to your readers and those appearing sometimes to serve little apparent purpose other than providing a forum for academics.

As I read the various articles on the politics of conservation, a few observations begged to be offered. Getting the attention of politicians is much easier if you have a simple, easily understood crisis. Giltmier [pp. 250-251] even likens Congress to a “fire department,” because it is concerned primarily with those issues that can be translated into votes. Put out a fire: Get a vote. Baum [p. 244] quotes Resler on “the long-range attitude of conservation professionals,” which translated means that the fire isn’t raging yet so the congressional fire department will probably concern itself with something else.

Sampson [pp. 252-254] tells us that “professional infighting and political campaigning masked as professional analysis” pose the main problem to getting a greater public commitment to conservation. Having spent two years trying to satisfy the RCA Coordinating Committee [what a misnomer!], I’m inclined to agree.

I was heartened by Peter Myers’ assurance [pp. 266-268] that “soil and water conservation will remain a federal priority.” But then on the previous pages Dennis Le Master [pp. 264-266] reminded me that all administrations in the past 40 years have said the same thing and none has really made natural resource conservation a priority item. Merilyn Reeves [pp. 259-261] made me even more depressed by pointing out that “current political actions seek to down grade or even eliminate the role and responsibilities of the federal government in solving soil and water conservation problems.”

As resource conservationists we apparently know what needs to be done, but collectively we lack the interpersonal skills needed to get the tools to adequately address the job.

As SCSA seeks to influence legislative action on natural resource issues, perhaps as a next step the organization should carefully study the articles by Le Master, Lee Shields [pp. 269-271], and Don Hadwiger [p. 275], as well as the suggestions of Giltmier, Sampson, Click [pp. 255-258], Reeves, and Cook [pp. 272-274], and, using these as a base, develop a guide for chapters and individual members to influencing natural resources action by various levels of government.

At the very least it might help us to keep from shooting ourselves in the collective foot.

John Garrett
Quaker City, Ohio

It is with a great deal of satisfaction that I sit here and tape my September-October issue of the JSWC back together. No, I am not complaining of the characteristic disrespect with which the U.S. Postal Service treats my copy of the publication, I am backing into a compliment for the JSWC staff. It has been awhile since I have taken this much pleasure in reading and distributing the magazine.

The pages of my copy are quite dog-eared, and many are loose; the cover disappeared a few days ago. But if a measure of an information source and communication tool is how often it is disassembled for photocopying and passed from hand to hand, then I am proud to say that many here have found this issue of much value.

Again my thanks for, and congratulations on, this issue of the JSWC.

Christopher H. Allen
Pennsylvania Farmland Project
Camp Hill, Pennsylvania

A matter of perspective

I would like to respond to the excerpt of an interview by W. Kent Olson with Benjamin Hooks of the NAACP, and the quote by an unnamed SCSA official regarding the interview “A political affair to remember” [page 273, September-October]. I regret having to respond in this manner, yet by the same token I regret having to read such irrelevant comments.

For Mr. Hooks to fully understand soil and water conservation and its relevance to Blacks is as difficult as it is for many SCSA members to fully comprehend civil rights, bigotry, and persecution of Blacks. In order for Mr. Olson or anyone to understand an answer to a problem, he has to, first, understand the problem.

And in reference to the SCSA official’s comment, “You have to understand that these people think they’re doing the most important thing in the world,” this statement...could have been said of SCSA by any NAACP member. I, by the way, happen to be an active, dedicated SCSA member: I’m also a member of the NAACP!

Willie L. Pittman
Montour Falls, New York

Simon says!

Julian Simon has done it again, this time in Public Interest. Because that journal does not have a letters section, I am writing on an issue that should be of concern to JSWC readers. Two years ago, Simon published an article, “Resources, Population, Environment: An Oversupply of False Bad News,” in Science (pp. 1,431-1,437), which was found by scientists to be riddled with illogical arguments.

Now Simon has published another article, “Are We Losing Our Farmland?”, in the spring 1982 issue of Public Interest (pp. 49-62), in which he points out numerous inconsistencies in the National Agricultural Lands Study and the Potential Cropland Study and concludes that the United States is not losing as much farmland to urbanization as reported. Furthermore, he points to the tremendous increase in U.S. food production over the past four decades and concludes that there is little need for concern about urbanization of farmland.

One could write an article on his illogical arguments and misuse of terminology, but basically, Simon fails to recognize that the increase in U.S. food production has been due mainly to fossil fuel-based inputs such as fertilizer, pesticides, increased mechanization, etc. He also makes the incredible statement, “We must remember that farmland by itself is only an instrument to provide food and fiber rather than being of intrinsic value, except to those who love it for its own sake.” My reply is simply
conservation policy directions. This is an educate nonfarm people about the importance of soil and water conservation needs should be fostered on and off farms and that problems should be addressed selectively. There are several key implications of this argument. First, perhaps conservation education functions should be separated to a degree from the process of service delivery. Conservation districts could be responsible for the former and put bids in to state and federal agencies for the latter. Second, means of making service delivery more flexible need to be found. This might involve coalescing technical assistance in regional officers rather than the county offices present in most areas, and should involve greater reliance in most areas on fiscal incentives for conservation performance as opposed to technical support. Finally, the most important implication is that means must be found to induce landowners to implement conservation measures where the need is great. Effective targeting hinges on motivating landowners in the key areas to action. Short of mandatory policies, we need to consider exceptions to per acre subsidy ceilings and wider use of variable subsidy rates. New procedures to facilitate targeting, such as the SOILEC model under development for the Soil Conservation Service at the University of Illinois, will make it more possible. It remains to be seen if Congress, USDA, and conservation organizations will allow the structural changes needed to translate targeting into action.

John B. Braden
Department of Agricultural Economics
University of Illinois
Urbana, Illinois

TAKE THE BACK WORK OUT OF SOIL SAMPLING

We manufacture the equipment you need for:
- Chemical residue sampling
- Sampling for soil fertility
- Sampling for soil nematodes
- Sampling for soil moisture

Ours is the best and most complete line of hand operated soil sampling equipment
- Sampling depths to 66 inches
- Sampling tube is forced into soil using foot pressure
- No bending over to pull sample
- Portable - sampling in fields with growing crops

WRITE FOR OUR CATALOG:
Clements Associates, Inc. JS
RR No. 1 Box 162A
Newton, Iowa 50208
Phone: (515) 792-8285
The American Cropland Crisis. By W. Wendell Fletcher and Charles E. Little. 188 pp., index, 1982. The American Land Forum, Bethesda, Maryland 20814. $7.95.

With this book, authors Fletcher and Little have provided a comprehensive and highly readable discussion of what they see as an emerging cropland crisis in the United States. No reader will accuse the authors of overoptimism concerning future crop production prospects. They see the nation as making prodigious use of its once-rich stock of cropland resources. Large areas of valuable crop production potential are continuing to shift to nonagricultural uses at a time when world demands for food crop exports, energy resource problems, and complications associated with the provision of new technological answers are placing increasing pressures on our capacity to produce.

The book is divided into three principal parts. Part I, “Losing the Land,” examines recent trends in cropland losses and what is happening with farmland protection programs. Emphasis in this analysis is on programs for providing tax incentives, establishing agricultural districts, securing zoning regulations, and acquiring development rights. Part II, “Beyond Open Space,” looks at the problem from a broader perspective. Attention is given here to world market demands for food exports, the question whether we have land enough, problems faced in developing and applying new technologies, and cropland and water needs for energy developments. Part III, “Saving the Land,” examines some innovative approaches for dealing with the problem of protecting U.S. farmlands.

Soil conservationists will find this book good reading both because of the breadth of its coverage and because it deals with issues that are of specific interest to them. Many will be intrigued by the authors’ recommendation that major responsibility for dealing with the farmland protection problem be vested in local soil conservation districts.

Overall, this is a good book. It provides a broad perspective on the farmland protection issue and its style and method of presentation should appeal to a large audience. Some critics may complain that the book is unduly pessimistic, that the problem of disappearing croplands is not as serious as the authors see it. I agree that the authors have probably overstated their case, but I also believe that they feel they may have done us favor in so doing. There is little doubt that the combination of disappearing croplands and increasing demands for food production portends an emerging crisis. Whether this problem becomes critical in the days of our children, our grandchildren, or our great-grandchildren is not the major point. The point is that we should initiate policies to deal with the problem now—before it assumes crisis proportions. Fletcher and Little have done a good job in exploring the issues and in pointing out the paths we might follow.—RALEIGH BARLOWE, Department of Natural Resources Development, Michigan State University, East Lansing, 48824.

General


Forests


Grasslands

North American Range Plants (second ed.). By J. Stubbendieck, Stephan L. Hatch, and Kathie J. Kjar. 464 pp., illus., refs., gloss, apps., index, 1982. University of Nebraska Press, Lincoln, 68588. $24.95, cloth; $13.95, paper.

Common & Scientific Names of Nebraska Plants: Native and Introduced. 85 pp., bibil., 1982. Publ. No. 101, Nebraska Statewide Arboretum, Lincoln, 68583-0823. $3.00.

Soils


