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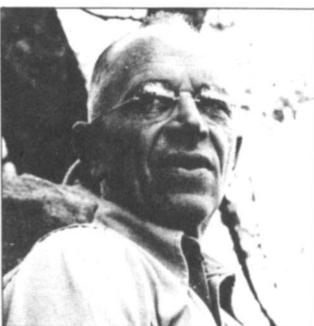
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A combination sediment-detention basin controls sedimentation and runoff from new development near South Windsor, Connecticut. Outlet in foreground enables controlled flow downstream. Photo by Vern Anderson.

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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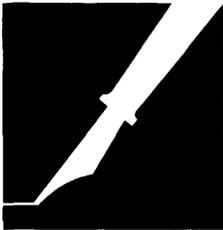
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PEN POINTS

Seeing red on no-till problems

I just finished reading the article by Maureen Hinkle in the May-June issue of the *JSWC* ("Problems with Conservation Tillage," page 201). And the more I read, the madder I got.

Much of what she writes is simply not true, and it is unfortunate because so many facts are available to counteract numerous statements she makes.

Several come immediately to mind:

1. There is plenty of evidence to show that no-tillage can eliminate the need for more traditional, more costly conservation practices.

2. The relationship Ms. Hinkle draws between no-tillage and increased emergency use of pesticides can be summed up in a single word: "Unbelievable!"

3. The way she writes, one would think atrazine is used only in no-tillage. Yet I'm sure the facts would show that far more atrazine is used with conventional tillage than with any type of reduced tillage program. Yet she apparently lays the total blame for the atrazine carryover problem onto no-tillage. In addition, there is plenty of university evidence to show that atrazine runoff is actually reduced with no-tillage in comparison with conventional tillage.

Why Ms. Hinkle is bad-mouthing no-tillage is something I simply can't comprehend. No-till represents a great many potential benefits for both farmers and consumers.

Unfortunately, it appears that she would prefer a return to the moldboard plow and conventional tillage—where the rivers run full of valuable topsoil and chemicals each spring and the winter snow turns black from blowing topsoil.

Frank D. Lessiter
No-Till Farmer
Brookfield, Wisconsin

A rebuttal to "seeing red"

Mr. Lessiter finds that increased emergency use of pesticides from no-tillage is "unbelievable!" Testimony from the American Farm Bureau before the House Agriculture Committee, Subcommittee on Department Oversight Research and Foreign Agriculture, on Feb-

ruary 23, 1983, requested continuation of the exemption authority specifically to deal with unanticipated emergency situations now being experienced in no-tilled corn in the Midwest and wheat in the Far West. In addition, the *Federal Register* periodically publishes requests for uses against pest population explosions resulting from no-till practices. When no registrations exist for such situations, unusual treatments are often requested.

In regard to atrazine carryover, in most, not all, cases, atrazine precludes rotation with soybeans because of the carryover problem. Any implication that atrazine is used only in no-tillage is not intended. Atrazine runoff has been studied probably as much as any pesticide. The results of most of these studies indicate that atrazine losses in runoff with *conventional* tillage are generally rather small, one to five percent. Strip-cropping and terracing with contours have been most effective in reducing runoff of atrazine.

I believe that there are tremendous benefits that can be realized with no-till and conservation tillage. In my view, these full benefits will not be realized unless auxiliary soil-conserving technologies are used together with reduced tillage systems. I also believe that increased funding for additional research is needed, or perceived failures will discourage farmers from continuing, or taking up, the lead of no-till farmers.

Conventional farming routinely uses high quantities of pesticides. It is possible, and has been demonstrated, that no-till may use less pesticides than conventional systems. With intercropping, even increased use of pesticides may be justified because of dramatic yield increases. I do not want to bring back the moldboard plow across the land. But I do not believe it should be put in a museum. The moldboard plow worked so well for so long that alternative technologies were not pursued simultaneously. My thesis is that we should proceed with open minds, rather than single fixes.

I would hope for a dialogue, and that is why I delved into the literature to see what is there.

Maureen K. Hinkle
National Audubon Society
Washington, D.C.

"Easy listening"

The "Viewpoint" in the March-April 1983 *JSWC* was music to my ears, for Mrs. Everett wrote what I've felt for a long time. While I am not a professional in the world of soil, I am a very interested bystander. My husband is a soil scientist for the Forest Service, so he is the "professional" in the household.

This brings me to the real reason I am writing. Why not have a family membership or a membership for the spouse? Perhaps you already have such a program and I am not aware of it, but I do think it's a worthy idea, and so did Mrs. Everett. On our family budget, it makes no sense to carry two SCSA memberships and receive two *JSWCs*, yet there are two of us who are concerned. If two names were carried on your roster instead of one, it would give SCSA more clout and get more people involved. In the past, I have enjoyed the meetings at both the state and national levels. I have enjoyed the people, and I have learned plenty. Perhaps those meetings even further spurred my interest in soils. In any event, there may be other spouses out there who want to do more than organize tea parties and babysitting services. As mothers, we may not always have an abundance of time for SCSA, but I think it behooves you to recruit us as members also.

Thanks for your time and the fine job SCSA is doing. And a big thank you for the article by Beverly Everett.

Barbara Coyner
Orofino, Idaho

SCSA does indeed offer a spouse membership. The cost: \$15.00, half the cost of a regular membership. And many spouse members agree with Mrs. Coyner that they do not need two JSWCs, so they ask SCSA not to send the second copy or they donate it to a local library.—Editor

Not out of water yet

An unfortunate typesetting omission mars Dayle Williamson's otherwise admirable summary of Kenneth Frederick's *Water for Western Agriculture* ("Books, etc.," p. 101, March-April 1983).

In the review's last paragraph, Frederick is quoted as concluding that "The West is running out of water." Actually—and one might infer this from the rest of the review—Frederick wrote that "the West is *not* running out of water" (my emphasis). Not only does the missing negative completely change the meaning of the sentence, but also it makes no sense when one reads the rest of the paragraph.

Granted that careful readers will recognize that an error has been made; those who only skim articles and concentrate on conclusions may well be seriously misled or at best be confused. Accordingly, ...we would appreciate your setting the record straight....

Kent A. Price
Resources for the Future
Washington, D.C. 20036

Blooper no. 2

In your January-February issue of the *JSWC*, an article was written on page 34 regarding U.S. Senator Jennings Randolph receiving the 1983 Distinguished Service Award from the National Association of Conservation Districts.

I feel it should be brought to your attention that Senator Randolph represents the State of West Virginia and not the State of Virginia. People from West Virginia acknowledge his support for soil and water conservation and hope that upon his retirement we will be fortunate enough to elect someone who will serve with the same dedication as Mr. Randolph toward the movement of conserving our soil, water, and other related natural resources.

Jean Freeman
Tygarts Valley Soil
Conservation District
Phillippi, West Virginia

Oops! We goofed! Apologies to Senator Randolph and his constituents. — Editor.

On the *JSWC*'s orientation

I wish to congratulate whomever is responsible for changing the content of the *JSWC*. Inclusion of articles on public resource policy, expansion of the "In

the News" section, and fewer research articles are most welcome.

The *JSWC* was becoming a publication for researchers. But members involved in research are in the minority. Most members are operations people in resource conservation, and they are interested in public policy, actual experiences, and news about legislation.

My contacts with other SCSA members indicate they would like to see more articles on actual experiences by farmers or ranchers, organizations, counties, and conservation districts in conservation programs they have implemented or carried out. Also some expansion of the "In the News" section, including the "People" portion, would be appreciated. In fact, many members were mostly reading "In the News" and ignoring the research articles because they were not interested, difficult to understand, and time-consuming.

Frankly, some members have and others were considering dropping their memberships in SCSA if the *JSWC* had maintained its policy of being basically a research publication. Many members, including myself, who are retired from active conservation work or related activities don't receive much from SCSA membership except the *JSWC*. We have retained our membership because of loyalty to the objectives of the organization.

Therefore, we hope you will keep up the good work of broadening *JSWC* content, making it more interesting to farmers, conservation operations people, public officials, and interested laymen.

A. R. Marquardt
Lincoln, Nebraska

Appropriate technology?

The article by Harvey Blustain (anthropologist), "Social Issues in Technology Choice—Soil Conservation in Jamaica" in the November-December 1982 issue [page 323] has caused unnecessary misunderstanding and presented a bad image of Jamaica's work in soil conservation. His pictures are particularly damaging.

Jamaica does have some social problems affecting the implementation of soil conservation programs, but the results are not that bad. The effectiveness of

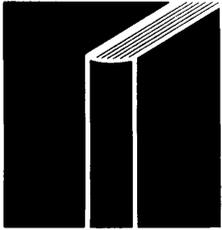
applying more simple and cheaper agronomic measures implied by Blustain has been doubtful under our conditions. It is a known fact that since the 1950s agronomic conservation measures, such as grass barriers and strip cropping have been extensively applied in the east and central watersheds of the island, but the majority have disappeared after a few years and proved ineffective. In Jamaica, where there are torrential rains and steep slopes and where small farmers mostly cultivate root crops, agronomic soil conservation measures at best should be applied to supplement conservation structures.

Jamaica, being the pioneer in soil conservation in the West Indies, has to its credit many achievements in this field. Demonstrations and technical criteria have been established, and long-term research has been carried out. The runoff plot studies in yams, for example, over the years have shown that grass barriers could only reduce soil loss to 40 percent or about 24 tons per acre per year, while bench terraces and hillside ditches are much more effective. If in a big country like the United States where tolerable soil loss is set at 3 to 5 tons per acre per year, then by no means should a small, densely populated island like Jamaica allow for 24 tons per acre per year. Also, we believe that soil conservation is a continuous, long-term task which cannot be done in a hasty manner like the IRDP [Integrated Rural Development Project] mentioned by Blustain in his article.

L. C. Latty and T. C. Sheng
Kingston, Jamaica

POSITION AVAILABLE: EXECUTIVE DIRECTOR

River Road Charitable Corp. seeks executive director for its Coolidge Farms project in Topsfield, Massachusetts, a 340-acre integrated farm in transition to biological management. Purpose of farm is to demonstrate commercial viability of integrated organic farming techniques and provide a base for applied research projects in conjunction with universities in New England and the University of Kassel, West Germany, and its European affiliates. River Road seeks candidates with a Ph.D. in agricultural sciences and five to 10 years professional experience, including administration of programs and projects. Salary: \$30,000-\$40,000 per year. Send resume by Sept. 1, 1983, to T. J. Coolidge Jr., Suite 923, One Boston Place, Boston, MA 02108. Include names and addresses of three references.



BOOKS, ETC.

The Cropland Crisis: Myth or Reality.

Edited by Pierre R. Crosson. 250 pp., illus., tpls., index, 1982. Johns Hopkins Press, Baltimore, Md. 21218. \$32.00, hardcover; \$12.95, paperback.

Will America's agricultural land be adequate to meet the food, fiber, and energy needs of future generations? Economists emphasize that land is an economic resource. If future food and fiber needs begin to press upon the existing agricultural land base, farm commodity prices will rise, making it profitable to bring more land into production.

But how much will future demand increase? And how much land will be required to meet this demand? And if the existing cropland base is not adequate and prices begin to rise, how much extra land will be brought into production? These issues are the subject of *The Cropland Crisis: Myth or Reality*, a collection of papers by agricultural economists from a 1980 conference organized by Resources for the Future.

Future demand increases depend on growth in world population and income, agricultural policies and production in other nations and the U.S. international trade policies and position. Martin Able projects future growth in demand for U.S. agricultural products and concludes that export demand is the key to understanding future demands on the cropland base.

Pierre Crosson, editor of the publication, correctly notes that different assumptions about future export demand can produce vastly different conclusions about the adequacy of the cropland base. The volatile nature of recent export growth and the key role of national and international politics introduce an element of uncertainty in the analysis of the cropland adequacy question.

This uncertainty is heightened by the critical role of technological change in determining how much increased production can be obtained without any increase in land area. Earl Heady discusses the history of technological change in agriculture and prospects for the future. His conclusions are somewhat more optimistic than others, including those of contributors Crosson and Vernon Ruttan, but are certainly well within the range of the possible.

The important and unarguable conclusion is that there is a need for a strong research capacity to generate new technology. Again, seemingly small differences in

assumptions about the rate of productivity growth from technological change can produce very different conclusions about the future adequacy of our cropland base.

If growth in demand for food and fiber outstrips the growth in per-acre yields, then more land will be brought into production. Michael Brewer and Robert Boxley survey the existing data on the cropland base and conclude that although the data are woefully inadequate for answering some of the basic policy questions, the cropland base has proved quite flexible in adapting to increases or decreases in both agricultural and nonagricultural demands. Yet no one knows how much land will be brought into production at various levels of commodity price increases. Although Crosson cites two local studies, no comprehensive studies exist, and none of the authors deal with this question in detail.

Pressures on the cropland base also depend on future availability and cost of other inputs, particularly water and energy. Kenneth Frederick observes that although water will become more scarce and costly and irrigation will not boost productivity as much as in the past, water problems will not put great pressure on the cropland base. Crosson argues that the "adequacy" of the U.S. agricultural land base will continue to be a matter of public concern, because the real cost of both land and nonland inputs, especially chemicals and water, will increase. He concludes that this is a cause for concern, but that there is no "major threat" to either domestic welfare or to other nations that depend on us for food and fiber.

Sterling Brubaker summarizes the policy implications, arguing that the greatest payoff is likely to come from expenditures to strengthen the agricultural research system. He argues that federal soil conservation policies and state and local policies to retain farmland are not very effective. Limiting exports would be highly effective in relieving pressure on the cropland base, but is politically impossible. As an alternative, Brubaker advocates the sensible policy of helping the Third World countries increase their own agricultural production.

So what does this all mean? Clearly, the authors are persuaded that the cropland crisis is more myth than reality. Most agree that the best "insurance policy" against any possible future crisis is investment in agricultural research. Most authors dismiss

the role of state and local land use policies as another form of insurance, perhaps too readily. Several authors puzzle over the motives of persons advocating farmland protection. Several others note that local policies adopted to solve local problems may have the side effect of preserving cropland for agricultural use. Yet the potential for using local and state policies as another form of insurance against a cropland crisis is generally ignored.

The relevant questions are how much production capacity could be preserved and at what cost? Technological advances will certainly have more aggregate impact, but if local policies are being considered to solve other, more local problems, their social cost in preserving production capacity may be quite low. Yet this criticism of the book is somewhat unfair because its objective was to examine the future national and international demands on the cropland base.

Serious arguments and quibbles could be raised with many of the specific points in almost any of the chapters—the subject matter is such that few statements can be proved conclusively. For example, most of the authors assume that markets will function smoothly in shifting land among different uses, an assumption some readers may not share. Little attention is given to specialty crops or regional differences. Other objections could be raised, but the basic point is that the editor and authors have produced an insightful analysis of the “cropland crisis.”

Soil scientists, agronomists, and other agricultural scientists (and economists), will find this collection of papers extremely useful in sorting out the conflicting arguments about agricultural land. Crosson's introductory chapter may prove particularly useful because he provides a clear, concise, and balanced overview of the cropland adequacy issue, noting key areas of uncertainty and disagreement. This introduction, and the papers that follow, provide a thoughtful analysis of the future adequacy of our agricultural land base.—**RICHARD BARROWS**, *Department of Agricultural Economics, University of Wisconsin-Madison, 53706.*

General

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Natural Resources and Development in Arid Regions. Edited by Enrique Campos-Lopez and Robert J. Anderson. 362 pp., illus., refs., app., 1983. Westview Press, Boulder, Colo. 80301. \$26.50.

Forest and Watershed Development and Conservation in Asia and the Pacific. Edited by Lawrence S. Hamilton. 559 pp., illus., refs., 1983. Westview Press, Boulder, Colo. 80301. \$25.00.

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wood B. Idso. 92 pp., illus., refs., 1982. Institute for Biospheric Research, Inc., Tempe, Ariz. 85282.

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Idaho Soils Atlas. By Raymond J. Barker, Robert E. McDole, and Glen H. Logan. 148 pp., illus., refs., app., gloss., 1983. University Press of Idaho, Moscow, 83843.

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