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Cover: The difference that fencing can make is evident in this photo of an overgrazed savanna in Burkina Faso in West Africa (see page 431). National Geographic Society photo.

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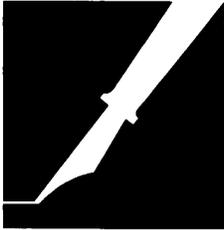
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PEN POINTS

The impacts of compliance

I would like to comment on one of the articles in your January, 1990 issue of the *JSWC*. The paper by Nyle Wollenhaupt and Melvin Blase, "The Economic Impact of Conservation Compliance on Northern Missouri Farms" [pp. 154-159], has taken a short cut in the procedures. This has eschewed the research conclusion. The conclusion presented to the reader, while not incorrect, focuses on the wrong issue: that it is "naive and cruel" to promote conservation.

First, the error. The statement on page 156, "Farmers generally manage for yield expectations based on the more productive soils within a field and, therefore, do not adjust inputs downward for less productive soils within a field," is correct. The error is that this observation was not used in the crop budget presented. Specifically, if a farmer manages for class-II land in a field heterogeneously mixed with land classes II, III, and IV, several of his input costs will be at the same high class-II land level. These variable costs are for the seed and fertilizer. The interest cost, and some individuals would argue that the machine maintenance and labor costs, is higher on the rougher ground.

The result would still be the same: less income. However, were these applied to the crop budget presented, the loss would have been so great it would have been apparent that the row crop enterprise can be in operation only if it is supplemented by another enterprise. Livestock operations and/or ASCS [Agricultural Stabilization and Conservation Service] commodity programs are the most likely supplementary choices.

My argument is that conservation compliance is not the cause of the economic situation. The only way to rationalize keeping class-IV land in production when its return doesn't cover its variable costs is because it is mixed in with the better land which does return a profit. Therefore, this is the only reason that can be used to justify land treatment. At what point we should convert to grass is a matter of judgment. The real issue is the class-III land. The arguments to support the family farm, the social

impact on our rural communities, food policy, and environmental concerns all lead to keeping this kind of land in the highest sustained use possible. The question is how?

I am not suggesting I have the definitive answer to this question, but I am offering this suggestion. Wollenhaupt and Blase's paper inferred that the adoption of no-till soybeans was a hardship. I believe a farmer on this kind of land needs to learn the techniques of no-till and adopt them now, not just for its conservation value, but for economic survival.

Also, the paper stated that investors must be warned of the potential negative impact of conservation. Investors need to recognize two things.

The first is that, other than in the period of selling land at inflated prices, agriculture has historically returned four to five percent of the investment to the land. Expectations greater than this are naive.

Second, landowners need to recognize their responsibility to care for the land by reinvesting in it. How much? What is economically reasonable is subject to debate. If we were to take one percent of the investment, say \$5.00 or \$10.00 per acre each year, this would be a reasonable figure. Still, the capital investment required to bring these farms up to standard would be very large and take the individual too long to achieve.

In this connection, we must continue to encourage our society to support conservation on individual farms if we are to save this resource during this generation.

David R. Speidel
Norfolk, Nebraska

A response

Dr. Blase and I feel that conservation of this country's soil resources is long overdue. Conservation compliance legislation was needed to move soil conservation past present levels.

Recent years have been economically difficult for farmers, but we do not attribute this to compliance. The crop budgets, however, show that there is a narrow margin between profit and loss

in the study region, especially on steeper landscapes. Conservation plans that call for reduced acreage of soybeans or expensive structures will reduce returns to land and management even further.

Also, there is little margin for error in adopting practices, such as reduced tillage and no-till. This should not be construed as an excuse for landowners to continue to allow excessive soil erosion to occur on their lands, but that soil conservation is a much more involved activity than just designing and promoting methods for keeping the soil in place.

We developed budgets for soils grouped by land capability classes for simplicity. In the text, we then called attention to the fact that fields are usually mixtures of soils, with farmers managing the whole field based on yield expectations for the most productive soils. Mr. Speidel has correctly noted that these budgets would most likely result in optimistic returns if applied on a whole field basis. We also concur that maintenance and labor costs may be higher on the rougher ground.

Dr. Blase and I are strong advocates of no-till crop production. On page 158 we called attention to readers that producers who learn no-till crop production techniques would learn that compliance will have little or not impact on crop selection. One reason for not including this option in the conservation practices is that there is considerable disagreement on no-till production costs (especially herbicides). Also, there are disagreements over no-till yield potentials and risks associated with learning no-till practices. For more information on no-till benefits, we would like to direct readers to "Soil Conservation . . . and Our Tax Dollars" by Sinner (*Choices*, Second Quarter 1990, pp. 10-13).

Our study certainly points out that there are farm financial implications associated with conservation practices. Perhaps we should cost-share on livestock for grazing rather than structural practices that require intensive cropping to justify the investment. As conservationists, we need to seek solutions that are probably nontraditional in nature, including active participation in agricultural policy development, new

crops, or easements to help farmers shift to a more sustainable form of agriculture.

Nyle Wollenhaupt
Department of Agronomy
University of Missouri

Bureaucrat bashing?

Congressman Bruce Vento's editorial, "A New Wilderness Revolution," in the May-June 1990 *JSWC* [p. 359] bears some additional attention in light of his criticism of federal land management agencies for their stewardship of the existing wilderness.

It was Forest Service personnel, Bob Marshall, Aldo Leopold, and others, who created the concept of wilderness. It was Forest Service personnel, John Hende, George Stankey, and Robert Lucas, who created the "cookbook" on the principles of managing wilderness—the idea that wilderness ought not simply be ignored by land managers.

In terms of how the agencies allocate their money for wilderness management, Congress has the final say-so over that, and the agencies have not been thus far rewarded financially for how well they manage wilderness. That can probably be accounted for in part by the enormity of the national debt. But federal land management agencies are highly responsive to how they think Congress expects them to manage; and, of course, these agencies have no "walking around money" with which they can do "what's right" as opposed to what's expected.

If there are air strips, railroad tracks, roads, bridges, buildings, and cemeteries in our wilderness areas, with polluted areas nearby—and there are—Congress knew about those things before they declared the areas to be wilderness. Wilderness is not pristine landscape. It is what Congress says it is.

For the past 20 years, the "creation" of wilderness has largely been an end in itself, a sort of helter skelter feeding frenzy to add more acreage, without much scientific regard for the protection of specific or threatened ecological systems. Although 15 percent of the

public lands have been declared wilderness, a number of these areas bear little relationship to the dreams of Marshall or Leopold. Instead, they are frequently more reflective of Thoreau's limited vision of a pleasant place (Walden Pond) to go to get away from his bill collectors. Once the wilderness areas were created, the constituent pressure was off of Congress to do anything more, for which Congress was undoubtedly grateful.

In no regard is this to be considered as criticism of Congressman Vento. He has clearly stated his serious personal concerns. But getting a fix on the ethical stewardship of our land requires a lot more considered reflection and action than simply kicking the bureaucrats around—an activity that seems to have replaced baseball as the national pastime.

James W. Giltmier
Pinchot Institute for Conservation
Springfield, Virginia

The wrong focus

In reading D. L. Karlan's article on conservation tillage research needs [*JSWC*, May-June 1990, pp. 365-369], one could become overwhelmed by the laundry list of needs. While not denying the need to provide solid research information, our focus on conservation tillage should be on how to get the needed tillage implemented, not on the negative aspects of conservation tillage.

Innovative farmers are implementing all forms of conservation tillage in all regions of the country. Their success depends as much on attitude as it does on technology and research. The technology is now available to implement conservation tillage in cash grain production almost anywhere.

The cold soil problem is being addressed by seed companies that are developing varieties that will germinate at cooler temperatures. The compaction problem is addressed by such techniques as controlled traffic patterns and using tools, such as paraplovers and soil aerators, that loosen the soil without burying residue. Deep-rooting crops, such as alfalfa, and passing time

also appear to help.

The movement of chemicals into the groundwater is being addressed by the chemical companies that are moving away from developing soil-applied chemicals.

Many of the negative results in research studies on conservation tillage have compared conservation tillage with conventional systems. The variables in the research being only the tillage technique. This reasoning is flawed because it fails to take into account that in successful conservation tillage other management inputs may need to be changed also.

We should be beyond such studies and concentrate in the future on finding the best technology to implement conservation tillage. There should be no question about whether conservation tillage will work under a wide range of soil and climatic conditions.

I compliment Mr. Karlan in his call for more research on improving production techniques in conservation technology rather than for more comparative studies.

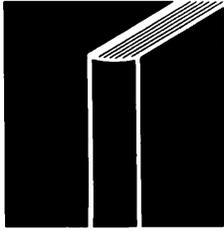
David B. Rahe
Hillsboro,
Illinois

What cost holistic management?

Mr. Savory's management systems are labor intensive and/or require greatly increased fencing. On arid federal land such intensive management costs much more than any increase in forage yields. His techniques may be economical on private land east of the 100th meridian, but for western federal land economy must be the rule. Considering this nation's \$3 billion debt, shouldn't Professor Sindelar [*JSWC*, May-June 1990, p. 356] teach only economical range management?

William S. Brenneman
Jelm, Wyoming

"Pen Points" is a forum for comment on published material or land and water management issues in general. Readers are invited to express their views in a letter to the editor.—Editor



BOOKS, ETC.

General

- EOS: A Mission to Planet Earth.* 36 pp., illus., bibliog., 1990. Earth Science and Applications Division, NASA Headquarters, Washington, D.C. 20546.
- Promoting Environmentally Sound Economic Progress: What the North Can Do.* 1990. World Resources Institute Publications, Hampden Station, Baltimore, Md. 21211. \$7.50 plus \$3.00 for postage and handling.
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Soils

- Soil Physical Conditions and Plant Roots.* Edited by Jan Glinski and Jerzy Lipiec. 288 pp., refs., index, 1989. CRC Press, Inc., Boca Raton, Fla. 33431. \$145.00.
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Water

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