Allan Savory discusses his goals to farm price support and convert thousands of acres of rangeland to cropland. Why the great Colorado and other program benefits save more soil?

226 Land use and soil loss: A 1982 update
Linda K. Lee summarizes preliminary data from the 1982 National Resources Inventory.

229 Will agricultural program consistency save more soil?
Katherine Reichelderfer looks at the possibilities for tying conservation goals to farm price support and other program benefits.

232 Why the great Colorado plowout?
Paul C. Huszar and John E. Young probe the motives of those converting thousands of acres of rangeland to cropland.

235 Rangeland revolutionairy
Allan Savory discusses his principles of Holistic Resource Management.

Microcomputer delivery of soil survey information
R. L. Cunningham, G. W. Petersen, and C. J. Sacksteder describe the use of microcomputers to assemble soil maps.

Scoring a conservation tillage contest
Kevin Adelman describes how two Minnesota conservation districts set up a contest to help farmers learn to use their conservation tillage tools.

The gullies of Imo
G. E. Osuji gives an insider's view of the spectacular gully erosion in one region of Nigeria.

Commentary: Farmland preservation: Playing political hardball
Charles E. Little looks at the Reagan Administration's hesitancy to implement the Farmland Protection Policy Act.

Commentary: Cross-compliance: Is it bold, menacing or just plain dumb?
Ken Cook analyzes the merits of tying conservation objectives to farm program benefits.

Research reports

An improved soil erosion classification for conservation policy
Ralph E. Heimlich and Nelson L. Bills

Farm-level impacts of mandatory soil erosion standards
David E. Ervin, Joseph P. Bryant, and Gary L. Stampley

Agricultural capability classification of pre-and post-mined landscapes in the northern Great Plains
William M. Schafer

Discount-rate and commodity-price-change effects on compensation to farmers for adopting soil conservation practices
Gary V. Johnson, Bartelt Eleved, and Parveen P. Setia

Sediment trap efficiency of a small reservoir
F. E. Dendy and D. M. Cooper

Cover: Some farmers do not reap all the rewards of conservation tillage because they do not use their implements properly, but two Minnesota conservation districts are working to help farmers learn (see page 244). Photo by Rich Fee, Successful Farming magazine.
Redirection of SCS unwise

At first reading, W. Q. Richards would appear to offer a plausible rationale for redirection of federal conservation programs and return to a mission statement for the Soil Conservation Service which emphasizes its role as a “technical agency,” devoid of responsibility for value judgments which raise troublesome questions of purpose, priority, and changing circumstance [JSWC, May-June 1984, pp. 156-157]. Who, after all, would dispute that “soil and water conservation must be an accepted premise of our society?”

Upon reflection, however, it becomes apparent that Richards’ simplistic prescription would hopelessly hobble the Soil Conservation Service and relegate to the sidelines of a growing national movement its thousands of talented professionals. To make his point that the Soil Conservation Service has lost the “advocacy at its top” and, therefore, the respect of its historical constituency, Richards points with alarm to the Farmland Protection Policy Act of 1981. It is certainly true that Secretary Block and the Department of Agriculture supported enactment of this landmark statement of official concern for protection of the nation’s prime agricultural land. But given the evidence of its overwhelming approval by the Congress and support of the conservation community, it is not reasonable to conclude that enactment of the FPPA resulted solely from an attempt “to take SCS into new enterprises.”

To be sure, SCS has been charged by the secretary with implementation of this important conservation initiative, as the agency most capable of doing so. Implementation of this law, whose sole purpose is to foster the “one national priority” espoused by Mr. Richards, has been delayed by development interests who sought to thwart the clear intent of Congress. These interests, and not the conservation community, are responsible for the “divisive confrontation” described by Mr. Richards. The vast majority of public comment on the FPPA regulations was favorable, and supportive of SCS. Mr. Richards’ observation to the contrary notwithstanding, the use of LESA in this connection was likewise applauded as an appropriate utilization of the agency’s technical expertise. These issues were resolved to the satisfaction of the conservation community, at least, when on June 29, Secretary Block authorized publication of the regulations.

It is imperative that we broaden, rather than restrict, the base of support for SCS and its vital mission. There must be no return to Mr. Richards’ illusory “safe harbor” if the agency and those who support its work are to be successful in building a truly effective national commitment to resource conservation.

Douglas P. Wheeler
American Farmland Trust
Washington, D.C.

A misguided idea

The same misguided idea advocated by D. Scott Brayton in the March-April 1984 issue of the JSWC [“The Beaver and the Stream,” pp. 108-109] was conceived and instigated by various state game and fish commissions in the southeastern United States over 50 years ago. Now, a half century later and after billions of dollars damage done by the big overgrown rats, the question that a majority of those concerned would like to have an answer to is how to get rid of them. That question has not been answered as of this date.

Here in Mississippi in the 1930s there were no beavers. The state stocked beavers, giving the landowners involved a contract stating that when they multiplied in sufficient numbers they would be trapped by the department and proceeds from the pelts divided with them. The facts are that today, when someone is lucky enough to kill a beaver, he is not dumb enough to think he can make money by taking the time necessary to skin it and then try to sell it. In some areas the state tried buying tails at $5.00 each, which was supposed to eradicate the beavers, but the money ran out before any results were noticed.

In some areas the state is trying to correct the first mistake of bringing the beavers in by stocking alligators to try to control them. I hope it works, but I have reservations as to what may happen to dogs, pigs, goats, and little boys who may get too close to a 15-foot alligator.

The pictures which I am enclosing were all taken after I read the above-
I mentioned the article. I started taking the pictures in my own yard and the rest of them on my way to leave the film for development. None of the pictures were more than five miles from my residence, but I know that they are indicative of situations that exist all over the country wherever beavers exist.

In my own case, I employed a trapper when the beavers moved in, but to date not one has been caught.

In my opinion, the editorial staff of your fine publication should require a little more background before publishing any such articles in the future. Vegetation is the basis for any good conservation, and there is no other animal in the world that pound-for-pound can destroy as much in a given time as a beaver.

T. A. Hester
Shelby, Mississippi

District programs essential

For 39 years I have been a district director in eastern and western Oklahoma. The legislation that created soil conservation districts is among the best that I have seen in my lifetime [see "Conservation Districts in the Future," JSWC, January-February 1984, pp. 4-5].

I believe these conservation districts should have five dedicated directors, and the executive directors should have expertise in public relations so that we can be sure district matters are handled in the best possible way. There are many retired, dedicated men and women who could perform these tasks in our soil conservation districts.

I would like to see each and everyone pull together to form a national and patriotic conservation organization. Because a nation cannot be strong without an abundance of natural resources.

Lloyd E. Church
Wilburton, Oklahoma

The changing professional

Kenneth H. Rose, in the March-April issue of the JSWC [p. 82], incorrectly speculates on one sentence in my contribution to "Out of the Dust Bowl" in the January-February issue [p. 6-17]. To reflect "indications that current conservation planning is not as comprehensive as in former years" (my phrase) carries no implications for the many causes that can bring this about. Rose chose to focus all causes in "that today's conservationists aren't as comprehensive in planning as in the past," and he goes on to defend the education and abilities of today's conservationists.

Education, abilities, and even dedication to resource conservation are essentials to be sure. However, current policy, administrative procedures, and technical materials with which to meet more complex modern technological problems and, most importantly, time allowances for working on a particular approach are indeed factors that can bring about a type of product. Frankly, it never crossed my mind to compare personnel who helped start the conservation movement 30 to 50 years ago with those entering this field of work in the last 5 to 10 years. However, I sympathize with current professional conservationists for being caught in what I term the "sanctity for the 40-hour week," which now prevails throughout our society in general. Early conservationists were not captivated in such a working environment.

Rose's compliment that "Out of the Dust Bowl" should be mandatory reading for new entrants into the conservation profession was certainly appreciated.

Melville H. Cohee
Fitchburg, Wisconsin
Sacred Cows at the Public Trough. By Denzel and Nancy Ferguson. 260 pp., illus., refs., index, 1983, Maverick Publications, Bend, Oreg. 97708. $8.95.

This 250-page outcry against overgrazing, particularly overgrazing of the public rangelands in the West, had its genesis when Dr. Ferguson was appointed director of the Malheur Field Station in southeastern Oregon, a research center supported by a consortium of 22 colleges and universities. Having documented how too many cattle had devastated the Malheur National Wildlife Refuge (“Waterfowl production had plunged from 151,000 ducks in 1948 to only 21,300 in 1974 as cattle grazing increased from 74,385 animal units in 1948 to 125,000 animal units in 1972.”), he started a campaign to get some cows off the refuge. His effort met all kinds of resistance—from political attempts to get him fired to threats on his life. At one point he and his wife Nancy were physically ejected from a public dance by “a gang of five robust cowmen,” considerably more force, he wryly commented, “than was needed to eject one woman and a middle-aged college professor.”

The authors were not intimidated. “We began to dig,” they relate in their preface, and the result is this intense documentation of the damages wrought through the decades by grazing pressures above carrying capacity.

Cattle movements into North America began with the Spanish conquistadors whose followers took them into our Southwest, but the numbers increased only gradually until American settlers began driving their herds westward in the 19th century. By 1870, there were an estimated 4 or 5 million head of cattle in the 17 western states and the stage was set for an “explosion.” Scarcely two decades later, the numbers had grown to 26.5 million. Widespread range devastation had set in.

Despite good intentions written by Congress into the Taylor Grazing Act (1934), the Federal Land Policy and Management Act (1976), and other laws, and despite the often ambivalent efforts of the public land agencies, overgrazing has continued. Citing an endless series of research findings, the Fergusons describe the aspects of range degradation: massive soil erosion; the drying-up of springs and streams; transformation of climax range vegetation to “tumbleweeds, cheat, and sage”; the decimation of wildlife; the futile and expensive attempts to treat the symptoms of ecological change through predator and rodent control; the continuing decline of productivity despite millions of federal dollars spent on “range improvements.”

The book has an angry tone that could lead the casual reader to doubt its objectivity and therefore suspect its facts. The anger is understandable; “five robust cowmen” and threats on the authors’ lives contributed to the point of view. The basic facts, however, are well documented; they were documented dispassionately but with equal force in Desertification of the United States by David Sheridan, a 1981 report by the Council on Environmental Quality.

The authors try to understand the political power of a tiny segment of the livestock industry to thwart grazing control programs. A relative handful of ranchers use the public lands and they produce about three percent of the red meat eaten by Americans. But the book ends on a note of optimism, seeing “unmistakable signs of a public awakening.” Sooner or later, all the conservationists, the millions of “hunters, fishermen, sightseers, bird watchers…and just plain citizens who care about natural resources” are going to get organized. “In fact, they must,” the Fergusons conclude, “for massive neglect of resources as valuable as public lands cannot continue forever.”—CHARLES CALLISON, Public Lands Institute, Denver, Colorado 80206.


No-Tillage Agriculture is an excellent review of research findings and practical knowledge on this timely topic. In most chapters, the authors appropriately draw upon their own research and observations to strengthen other published research. This makes most chapters informal and highly readable.

The chapters on soil adaptability, fertility, multicropping, and soil water are excellent. The discussion of climatic effects on no-tillage was especially thorough and interesting. Particularly noteworthy was the use of the degree day concept to organize this broad topic. Moreover, the authors’ insight on no-tillage in the tropics is the result of experience in that region.

The chapter on weed responses to no-tillage needed expansion. Nevertheless, it is well written and cites a large number of research articles for further reference.

The chapter on equipment is good, although it lacks detailed information on spraying equipment. Proper spraying is one of the more important, practical aspects of no-tillage farming. However, a single volume cannot possibly cover every aspect of no-tillage.

This book would be an excellent reference text for use in a soil management class. And because no-till is the best agronomic solution to soil erosion problems, it should be useful to all soil and water conservationists.—DONALD D. TYLER, Department of Plant and Soil Science, West Tennessee Experiment Station, University of Tennessee, Jackson, 38301.

Genera


Forests


Soils


The Nature and Properties of Soils (ninth
Water


Ecology


Land Use


