

THE GREAT PLAINS CONSERVATION PROGRAM

I'm reminded that

The Missouri Basin drains one-sixth of the United States.

Its rainfall varies from six to nearly 50 inches. Its seasonal

temperatures can range from minus 70 degrees Fahrenheit to 120

above. It has, in general, a high average wind velocity and *as we move*

west semi-permanent drought condition. For all of us concerned with

land ^{*use*} and water resources, the Missouri Basin area provides ample

change, challenge, and concern.

The Basin is a major part of the Great Plains area.

The Plains produce almost two-thirds of our wheat, about half

of our cattle, and a quarter of our feed ~~grains~~. The area is

rightly called the ~~breadbasket of the Nation--and~~ of much of the

world.

Speech by Norman A. Berg, Associate ~~Administrator~~, Soil Conservation Service, at the Missouri Basin Inter-Agency Committee meeting, Omaha, Nebraska, June 23-24, 1971.

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The Plains also have been called the land of "boom or bust" farming and ranching. This is not a criticism of Plains farmers or ranchers, who faced heavy social, economic, and resource demands. They responded magnificently to the great food demands of two world wars. They made cropfields from grasslands, to produce great quantities of wheat, corn, and other foods to meet a great national ^{+ world} need.

In the process, submarginal lands were plowed that could not sustain intensive cropping. This was a major ecological cost of war. *this* It had to be rectified, and some way found for Plains people to use their land and water resources to provide for their own and the Nation's needs on a more stable, long-term basis.

-3-

The fact was--and is--that the Missouri Basin and the Great Plains are essentially agricultural. There is a *healthy* growing industrial base, and an excellent potential for water-based recreation--thanks largely to the work of Federal and State agencies. But it is primarily an agricultural area, and therefore it should have the best agriculture possible within its special resource realities.

This is a basic premise of the Great Plains Conservation Program. The program provides technical and financial assistance to protect and improve the soil, water, plant, and wildlife resources of the area. It contributes *along w/ other programs* to total environmental improvement through the reduction of wind and water *soil* erosion, *through* abatement or control of agriculture-related pollutants, *through* *more* efficient use of land, improvement of fish and wildlife habitat, and recreation development.

The Great Plains Conservation Program was ^{one of} the first regional conservation program of the Federal government. There was a recognized need for intensive conservation work in the Plains as long ago as the 1920's. The need became more clearly defined after formation of the Great Plains Agricultural Council in 1935. But it was the drought of the 1950's that kicked off the present Great Plains Conservation Program.

To date, more than 43,000 land owners and operators in more than 450 counties are working to protect 82.8 million acres of land under long-term GP conservation contracts. More than 30 different conservation measures now can be considered for inclusion in contracts, such as conversion of unsuitable cropland to permanent grass cover, terracing, livestock water development, windbreaks, and irrigation system improvements.

Under these contracts, more than three million acres of grass have been seeded or reseeded, and almost 60,000 miles of terraces have been built. These and other measures benefit not only the landowners directly concerned but also the river & water shed stream drainage systems below the land treatment conservation work.

Most of you are familiar with Great Plains results, so rather than more statistics, I'd like to look instead at the general concepts that underlie the program, what experience has taught us about them, and a brief resume of other SCS programs.

First, the GPCP has demonstrated the value of comprehensive, long-range planning, and of setting aside the necessary money and technical help for longer periods. Great Plains contracts run anywhere from 3 to 10 years, during which landowners put the agreed-upon plans into effect in an orderly sequence.

-6-

Second, the program has proven the value of a complete management system for ^{all land incl.} both grasslands and cropland. The Great Plains effort is the only Federal conservation program that ties cost-sharing under contract to a complete conservation package for an entire farm or ranch unit. Local conservation districts play an important role in reviewing applications for program assistance and in making ^{certain} sure that the conservation plan is in line with district objectives. The cooperator must ^{also} agree to apply all recommended conservation measures, both those he pays for entirely himself and those on which the Federal government ^{helps} cost-shares. This "whole package" concept is important. It is a major reason for the program's success. Demand for the contracts is consistently greater than the money available to service them.

A third result of the program is that conservation technicians and specialists have developed effective ways to put land back into grass. This may not seem like a difficult job to a backyard gardener in the humid Eastern states, but building or rebuilding good grasslands in the Plains is not a simple plant-and-grow operation. *In fact,* Not much Plains conservation work is simple.

Fourth, the program has spurred widespread application of new conservation tools and technologies. Parallel terraces were widely introduced by landowners under GP contracts. New species of drought-resistant trees are being planted, and researchers are working on new and better plants for forage, erosion control, and wildlife. Many of these come from the excellent *research of* state experiment stations, or from our own Soil Conservation Service Plant Materials Centers.

-8-

'Barton' western wheatgrass, a disease-resistant, superior forage producer for some areas of the Great Plains, was released recently by the Kansas State Experiment Station and the SCS Plant Materials Center at Manhattan, Kansas.

And fifth, we have been impressed over and over with the need for flexibility in any conservation work dealing with the Great Plains area. Conservationists must be aware of new needs and problems and newly urgent attitudes toward the use of resources. One result has been SCS recommendations, accepted by Congress ^{when extending the basic act L. 1951} in late 1969, ^{now} that allow us to work on erosion control for nonfarm areas, to aid in fish, wildlife, and recreation enhancement, and to provide more assistance in reducing or controlling agriculture-related pollution.

Providing better conditions for fish and wildlife has always been an incidental benefit of conservation work, but now we can provide more specifically for this. Erosion of adjacent nonfarmland can seriously interfere with the successful operation of a farm or ranch; so if the owner of the nearby land is willing, we can provide technical assistance and some cost-sharing to relieve the problem.

What else has the Great Plains Conservation Program taught us?

We know, from experience, that it is possible to improve the economic value of a farm or ranch while following sound conservation principles. More importantly, farmers and ranchers also know this from their own experience. A study a few years ago of 2,500 expired Great Plains contracts showed that about 90 percent of the landowners were maintaining conservation practices at the same level as under cost-share contracts.

About 6 or 7 percent were doing better work. The remaining 3 or 4 percent had slipped. Most of the slippage occurred on the land of new owners or operators who had not gone through the initial educational process involved in the program.

The Great Plains is an area where drought is the natural condition. Our ancestors were accustomed to the high rainfall of Western Europe and, later, the Eastern, forested United States. It has taken almost a hundred years for widespread acceptance of the fact that Plains country is different, and requires different approaches for people who want to live here and sustain a long-term agriculture. Hope springs eternal, but the verities of Plains life must be part of any hopes and plans for the area.

-11-

As you know, there is again a severe drought in the Southern Plains. Some officials believe this is a far worse drought than the 1930's. But this time, while a large percentage of farmers, ranchers, and other members of the local community will suffer the economic loss of their livestock, crops, and business during the drought period, the area hopefully will not face the longer-term ecological damage of the 1930's. This is primarily, of course, because many farmers and ranchers have used a variety of soil conservation techniques on their land.

There has been outmigration from the Plains, but it would have been greater without the program's incentives for good managers to remain. The entire Nation has a stake in seeing that this huge area continues to develop satisfactorily.

The Great Plains Conservation Program perhaps has been too successful in that we seldom have had funds enough to go around. We estimate there will be 4,300 applications from landowners in fiscal 1972. We'll probably be able to develop contracts with about 3,000 new applicants. That will mean another 1,300 applications still on hand by the end of fiscal year 1972. Added to the present backlog, that will mean a total of about 8,600 applications on hand.

Here's another indicator of success: imitation has been called the sincerest form of flattery. Three other regional conservation programs, with similar features, have been proposed in the past few years--for the Great Lakes area, the Wabash River Valley, and the Palouse region of the Pacific Northwest. These proposals are sponsored by local conservation organizations, and the Soil Conservation Service neither supports nor opposes them.

-13-

The Great Plains Conservation Program is only part
of the nationwide ^{d basin} work of the Soil Conservation Service. Last
year, SCS technicians and specialists helped more than a million
individual land owners or operators through conservation districts.
This included preparing or revising conservation plans that cover
more than 50 million acres. The great majority of these
individuals are farmers or ranchers.

Last year, SCS people also assisted 61,000 state,
regional, or local units of government with inventories, resource
evaluations, or specific problems concerning soil, water, or
related resources. This includes everything from river basin
studies to environmental quality evaluations for small towns,
to advice on how to reduce sediment deposition in street culverts.

We receive many requests for soil survey information from town planners, engineers, zoning officials, legislators, and other nonfarm people. Soil surveys help them to select suitable sites for homes, airports, parks, sanitary landfills and so on. Of course, they also are useful in planning runoff and erosion control measures.

Currently, about 44 percent of the United States is covered with modern soil surveys, although not all surveys have been published. As many of you know, they are made in cooperation with other Federal agencies, land-grant universities, and local organizations.

The Soil Conservation Service also works with local people on more than 1,600 small watershed projects. We have received another 1,300 applications for similar projects.

-15-

These projects ^{as you know} include both land conservation measures and dams, diversions, or other engineering measures designed to meet local needs for flood protection, and often to create more water supplies for rural or small town uses.

About 170 small watershed projects are now completed, under construction, or being planned in the Missouri Basin area.

The Soil Conservation Service has USDA leadership for aiding in 78 Resource Conservation and Development Projects. These projects are multi-county efforts to help local people improve their lives and livelihood through the better use of available resources. A major "plus" is that the regional planning for these projects requires sponsors to analyze the total community needs of their area--often for the first time. Another feature is that the RC&D program permits almost immediate action on some measures if local people sense the need and are willing to do their share.

-16-

There are one or more RC&D projects in every state in the Missouri Basin.

Work on river basin studies in cooperation with states, other agencies, and local groups--many of them represented here-- is another aspect of SCS work. We are currently participating in six river basin studies within the Missouri Basin.

In the 11 western states, snow-fed streams supply 70 percent of that area's water supply. SCS operates a network of snow courses and related data collection sites to help determine how much water will be available in the spring and summer months. Forecasts this past winter, for example, helped both rural and urban residents in the Southwest to prepare for an extremely dry spring. We are working to improve forecasting efficiency through a number of means, including more automatic telemetry stations.

-17-

In recent years, we have stepped up our work ²⁾ on animal waste disposal in rural areas, and ¹⁾ on sediment reduction on both rural and urban areas.

The disposal of animal waste is a growing problem in the Great Plains area, where there are about 34,000 feedlots of less than 1,000-head capacity. Many of these are integral parts of farm and ranch operations that have, or are working to get, Great Plains Conservation Program assistance. We receive numerous requests for technical help, and we comply to the extent possible. This is one of many areas where we ~~could certainly use~~ ^{needing} more research and more money.

In the case of sediment problems in new suburban areas, several states now have statewide laws that require builders to prepare sediment-control plans, and have them approved by local officials, before construction work can begin. Conservation districts are active in this work, in a technical advisory capacity.

Suburban developments can produce extremely high sediment loads during the construction period if plans are not made, and carried out, to offset the results of major land disturbances.

SCS is encouraging more widespread use of soil survey information for nonfarm uses. For example, the use of survey data to help locate sanitary-landfill sites that are well drained and will not pollute water resources is growing fast.

In farming areas, we encourage the use of stubble mulching, or no-tillage cropping methods. Experiments show that stubble mulching in the Northern Great Plains, with 1,500 pounds of small-grain residues left on the surface, reduces water erosion by 75 percent. In some cases we have seen this reduce water erosion by over 90 percent, and practically eliminate wind erosion in corn and soybean growing areas.

-19-

The conservation job is never completed. Changing land uses, changing land owners, new problems and shifting community values require that as long as we use our soil and water resources intensively, we must continue to apply effective, modern conservation measures.

My agency has been deeply concerned with good resource use since its inception in the Dust Bowl days of the mid-1930's. I myself grew up in rural Minnesota during the early years of the Soil Conservation Service, and ^{some} ~~a lot~~ ^{the} of ² South Dakota--or at least its topsoil--blew past my home. Later, as Assistant State Conservationist for South Dakota in the 1950's, I saw first-hand the drought conditions that hastened passage of the Great Plains Conservation Program. I know all too well that you ruin people, too, when you ruin the land.

-20-

The Great Plains will never be fully "conquered." It will continue to have variable rainfall, extremes of temperature, a complex soil pattern, high winds and frequent drought. But Plains people are meeting their vast and vital land on its own terms. They are making it a viable part of America.

I am pleased to see the many good changes that have come to this area; but I repeat, the conservation job is not done. Good Plains farmers must also be good environmental experts, for the margin for error is small in this country. The Great Plains Conservation Program is a major source of assistance tailored to the needs--and altered by the experiences of--people in this area.

Secretary of Agriculture Clifford M. Hardin recently commented that much of the public seems to have lost sight of *the value of* old-line conservation agencies in the new environmental thrust.

