



Research Center, Route 1, Box 80, Linneus, MO 64653.

Not everyone's lives will change as drastically as the Twestens did after attending the workshops. But the workshops do impact the way participants think about and use grazing on their farm.

Not a day passes on the Twestens' they don't do something that was directly influenced by the workshop. They split a 160-acre field into six paddocks for rotational grazing this year. They developed the plan from the information they learned at the workshop.

"I'm a grass farmer and some people wouldn't like to admit that. They would rather be called cowboys, but I make my living from grass," says Jim Twesten. "And what I learned at the schools helps me do this."

North Dakota's CRP Grazing and Haying Demonstration Project

Jeffrey L. Printz

With the passage of the 1985 farm bill, a program reminiscent of the Soil Bank program of the 1950s and '60s was born. The Conservation Reserve Program, or CRP, is similar to the Soil Bank program of the '50s and '60s in that CRP removes land from annual crop production and places it in permanent cover. Although similar to the Soil Bank program in this respect, the expressed goals of CRP were clear-cut and the qualification process for entering cropland into the program was very different.

In North Dakota, almost 3 million acres have been enrolled in CRP. Most regard the impacts of this program on the soil and wildlife resources as positive. In North Dakota, CRP has resulted in the saving of about 45 million tons of soil per year, taken over 1 million acres of wheat base out of production, provided income support for over 13,000 farmers, and created some of the highest wildlife populations since the Soil Bank days (Senechal 1990).

Others view the impacts of CRP on the small local communities as negative.

It has been 8 years since the first CRP bids were accepted and the first contracts written. In the fall of 1995, the first contracts will expire. What will be the future of these CRP acres? Will most be returned to annual crop production as happened when the Soil Bank contracts expired? Or will the contract holders find alternative methods of earning income from this land which will keep these acres in permanent cover?

Many factors will influence the contract holder's decisions on post CRP land use. Certainly one of the more overriding factors will be the provisions of the 1995 Farm Bill. Other factors, such as the age of the contract holder, the presence of livestock on the farm and the condition of the grass stand on the CRP fields will have an influence on this decision.

Without a doubt, the largest influence will be economic. The need to have some type of economic return from

Author is Area Range Conservationist, USDA-Soil Conservation Service, Jamestown, N.D.

the land, whether it be from raising livestock, the leasing of hunting rights, or some other enterprise(s), will be the ultimate factor. If contract holders are to make informed decisions about the future use of their CRP acres, they need good information on which to base their decisions.

In a "proactive" effort to provide this type of information to North Dakota producers in a timely manner, a project was initiated in fall of 1989. This project, developed under the leadership of Arnold Kruse, wildlife habitat biologist, USDI-Fish and Wildlife Service, ultimately became known as the "North Dakota's CRP Grazing and Haying Demonstration Project."

Because CRP guidelines expressly forbid grazing or haying of CRP contract acres, permission from Agricultural Stabilization and Conservation Service (ASCS) was needed before such a project could begin. A project outline was developed and submitted to ASCS at the Washington, DC, level, requesting permission to establish grazing and haying demonstrations at key locations within the state. In March, 1990, permission was granted by ASCS to establish grazing and haying demonstrations on CRP land at 4 sites in North Dakota.

After receiving permission from ASCS to proceed with the project, the search began for suitable sites. Criteria for site selection consisted of the following.

1. Willing participant. Stipulations placed on the project by one of the funding sources required that participants be willing to maintain the site in perennial cover and graze or hay it for a period of up to 10 years after the initiation of the demonstration.
2. Highly Erodible Land (HEL). Since the stated goal of the demonstration project is to keep 500,000 acres of HEL cropland presently in CRP in permanent grass (only 17% of the CRP acres in ND), the sites selected needed to reflect this type of land.
3. Viable grass stand. Approximately 99% of the acres enrolled in CRP in North Dakota were established to

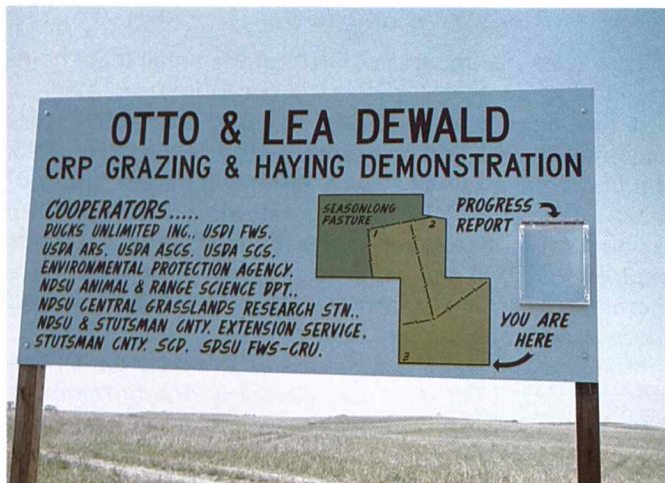
a mixture of introduced grasses and alfalfa. Once established, all of these stands will be adequate to meet program objectives (control erosion). However, after observing numerous stands, it is questionable as to whether some will be able to produce adequate forage to sustain economically viable livestock numbers.

4. Accessible location. The sites selected should be easily accessible, preferably along well-traveled paved county roads or state highways.
5. Minimal improvements. Because of limited financial resources, structural improvements required to make the site usable needed to be kept to a minimum. Existing fences and water developments were used wherever possible.

With its approval, ASCS also placed 2 restrictions upon the project. First, any livestock used to graze CRP acres must be state owned. Secondly, any hay obtained from



Numerous tours of the demonstration sites were held during the 1992 grazing season. Groups from Canada, the Outdoor Writers Association of America and various conservation organizations as well as local producers toured the sites.



Billboards have been erected at all four sites. Annual progress reports highlighting the previous year's data are available at each site.

CRP acres could only be utilized by state agencies or by local wildlife clubs. The requirement to use state-owned livestock, the need to collect reliable data from the sites, and the need for broad-based support for the project resulted in the organization of what is now known as the "North Dakota CRP Task Force."

The North Dakota CRP Task Force consists of representatives of the following groups: North Dakota State University (NDSU) Department of Animal and Range Science, North Dakota Research Stations, North Dakota Extension Service, USDI Fish and Wildlife Service, North Dakota Stockmen's Association, Agricultural Research Service, North Dakota Land Reclamation Center, USDA Soil Conservation Service, and USDA-ASCS. The Task Force advises and coordinates the activities of the demonstration project.

While the hunt for suitable sites was underway, a search for funding sources was also being conducted. Wes

Ewine, RC&D Coordinator for the South Central RC&D Council, developed a grant proposal for obtaining funding from the Environmental Protection Agency (EPA) through the North Dakota State Health Department. Other groups agreeing to provide financial support included Ducks Unlimited, Inc., US Fish and Wildlife Service, and the Stutsman County Soil Conservation District.

Each site was fenced into 4 pastures in the early spring of 1992. On 3 of the sites (Stutsman, Ward, and Bowman counties), 1 pasture was designated to be grazed season-long while the other 3 pastures would serve as a three-pasture, twice over grazing system. The Adams County site was also fenced into 4 pastures, 3 of which would be managed under a three-pasture, twice over grazing system, while the fourth pasture would be hayed. The pasture hayed in 1992 will be rotated into the grazing system in 1993 and 1 of the other pastures will be hayed. This "graze/hay" rotation will be maintained for the remainder of the demonstration.

The design of the grazing systems resulted in considerable discussion among Task Force members. It was agreed the best situation would have been to utilize the CRP pastures as complementary pasture(s) for native rangeland. However, because of the need to use state-owned livestock and a desire not to compete with local ranchers for rangeland, this option was not feasible. The grazing systems selected reflect the best compromise between the Task Force's desire to demonstrate economically sound alternative uses for these CRP acres and the limited funds available to collect the necessary data.

Stocking rates for the first year were relatively conservative, primarily for 2 reasons. First, all 4 sites were located in areas of the state that had been under moderate to extreme drought conditions for the past several years. Secondly, the producers who agreed to participate in the demonstration are required to maintain vegetative cover in order to prevent erosion. Stocking rates will be reviewed following each grazing season and adjustments made the following year, if needed.

The seasonlong and rotation systems at the Stutsman and Ward County sites were both stocked with cow/calf pairs at a rate of 0.9 AUM/ac and 0.5 AUM/ac, respectively. The Bowman County site was stocked with yearling heifers at a rate of 0.6 AUM/ac on the seasonlong and 0.8 AUM/ac on the three-pasture rotation system. The class of animals used on these 3 study sites may be switched from year-to-year, depending upon the availability of animals.

The Hettinger County site will be stocked each year with a mixture of yearling heifers and yearling ewes. The stocking rate used during the 1992 grazing season was 1.2 AUM/ac. The ewes and heifers will be managed as a single herd, providing an opportunity to collect information on dual-species grazing.

Grazing and haying operations went smoothly during the 1992 season. Because of the dry conditions during the spring, 2 of the livestock watering dugouts did not have adequate water when grazing was scheduled to commence. This resulted in the need to haul water for a portion of the grazing season. In addition, a solar pump was

installed to move water from 1 of the dugouts to supply tanks located in the other pastures. The use of the solar pump proved very effective.

Personnel from the Hettinger, Dickinson, and Central Grasslands Research Centers along with staff from the Animal and Range Sciences Department at NDSU are collecting both animal performance and plant data from all 4 sites. Soil erosion data are being collected from the Stutsman County site by the North Dakota Land Reclamation Research Center. Erosion data at the Stutsman County site are being collected from the grazed and hayed fields as well as a control area. Data are also being collected to determine the effects of the grazing trials on upland nesting birds and the use of these areas by non-game birds by NDSU and South Dakota Cooperative Wildlife Research Unit.

Results collected the first year indicated herbage production ranged from 2,236 lbs/ac to 3,991 lbs/ac. Utilization amounts varied from 52% to 59% among the study sites. Average daily gains for the yearling heifers ranged from 1.43 lbs/day to 1.81 lbs/day on the Bowman and Adams County sites. The average daily gain for calves on the Stutsman and Ward County sites ranged from 2.51 lbs/day to 2.87 lbs/day. The sheep in Adams County gained 0.37 lbs/day. These gains would be considered acceptable by most producers in North Dakota (Nyren et al. 1993).

Hay yields ranged from 0.8 ton/ac at the Ward County site to 2.0 ton/ac at the Bowman County site. Nutritional analysis showed percent crude protein levels averaged from 8.04 to 10.86 % for first cutting (Nyren et al.). It was felt that percent crude protein levels for the samples were low due to the high amount of previous years' material and late harvesting dates.

Since economics will be an important consideration when a producer decides the future use of his or her CRP acres, the livestock production data collected from the grazed areas and forage production data collected from the hayed areas will be of major interest. This data will be utilized in an ongoing economic study being conducted by Paul Nyren, superintendent at the Central Grasslands Research Station. It compares the economic returns from cropping highly erodible cropland with the returns from retaining this type of land in grass and utilizing it for livestock production.

As 1995 draws closer, the question as to the future of CRP acres will be asked with greater frequency by both producers and the general public. The organizers and participants of North Dakota's CRP Grazing and Haying Demonstration Project hope to provide the land owners and operators with some good, sound information on which to base their important decisions.

References

- Senechal, Myron. 1990.** Conservation Reserve Program in North Dakota. Unpubl. Poster paper presented at 1990 SWCS meeting in Salt Lake City, Utah.
- Nyren, P., et al. 1993.** Conservation Reserve Program (CRP) Grazing and Haying Study-1992. Progress report, Central Grasslands Res. Sta. Streeter, N.D.