

Sea of Grass in New Mexico A Perspective on CRP

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The "Sea of Grass" of the early 1900's has once more returned to the landscape of the High Plains of New Mexico. The Conservation Reserve Program (CRP) of the 1985 Food Security Act permitted the sowing of permanent vegetation to protect soil from erosion. Questions about what the future holds for this land in New Mexico have prompted a few studies and there will certainly be more to come as the expiration data of CRP contracts nears.

As of 1990, 333,392 CRP contracts were developed covering 33,921,898 acres nationwide. New Mexico's role in CRP was very aggressive and expedient from 1985 through 1989. During the first eight bid rounds, New Mexico logged over 43,000 acres in 1,300 CRP plans throughout the six easternmost Southern High Plains counties of Union, Harding, Quay, Curry, Roosevelt, and Lea. Today, an estimated 480,000 acres are enrolled throughout New Mexico. CRP has also benefited the Pecos-Canadian Plains and Valleys, Southern Desertic Basins and Plains, and the New Mexico Plateaus Major Land Resource Areas (MLRAs).

Seeding Mixtures

The state's diverse land forms parallels the diversity of seeding mixtures for CRP. The climate of the northeastern portion of the Southern High Plains MLRA is characterized by harsh windy winters and brief but heavy summer thundershowers with precipitation averaging 14 to 16 inches. The species of grasses seeded consisted of a mixture of blue grama, sideoats grama, yellow bluestems, (Ganada, Plains, Spar, etc.), wheatgrass, and switchgrass. The yellow bluestems were the dominant introduced species. Rare were the preferences of single native species seedlings over mixtures of grasses, forbs, and shrubs.

The use of yellow blossom sweet clover, a biannual legume, was used in mixtures and also as a cover crop. This species proved to be beneficial to seedlings in protecting them from the harsh winter climate and drying winds. A secondary benefit received from the clover was the build up of nitrogen available to the grasses, forbs, and shrubs. Seedlings with this cover had a darker green coloration than non-clover seedings and had more vigor during the first three years.



First year seeding of sideoats grama and blue grama with clover nurse crop.

Livestock owners observed more livestock usage on pastures with clover mixtures than on grass pastures without clover. Because the clover is biannual in nature and subject to the unpredictability of rain through the years, it will react as a bumper crop in one year and may not return for two to three years. Though it is an unpredictable forage base, it is a beneficial and definitely accountable species for forage improvement during the years that it flourishes.

In the southeastern portion of the Southern High Plains MLRA, one can see the benefit of introduced grasses in a precipitation zone of 14 to 16 inches where winters can be mild and summers are some of the driest of the Great Plains region. In this area, introduced species made up 75 percent of the seedings. The remainder of the seedings were similar to the native species of the northeastern part. The weeping lovegrasses are favored for their ease in germination in hot, dry summer temperatures. Lovegrass, as expected, provided excellent soil protection throughout this region.

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Clover cover in CRP resembles an alfalfa field planted under dryland conditions.

Both 1987 and 1988 were good grass establishment years with above-average production of cover crops of forage sorghum, grain sorghum, and wheat.

The remainder of the CRP seedings in New Mexico were made around Deming and Lordsburg in the Southern Desert MLRA where range seeding is truly put to the test. Under extreme desert temperatures, supplemental irrigation or mulching is the norm for cover and seedings. Species used were alkali sacaton, weeping lovegrass (Ermelo & Lehman), blue grama and sideoats grama.

Success in this region approached 50 percent but would have been less if supplemental irrigation had not been used for preparatory cover crops and seedings.

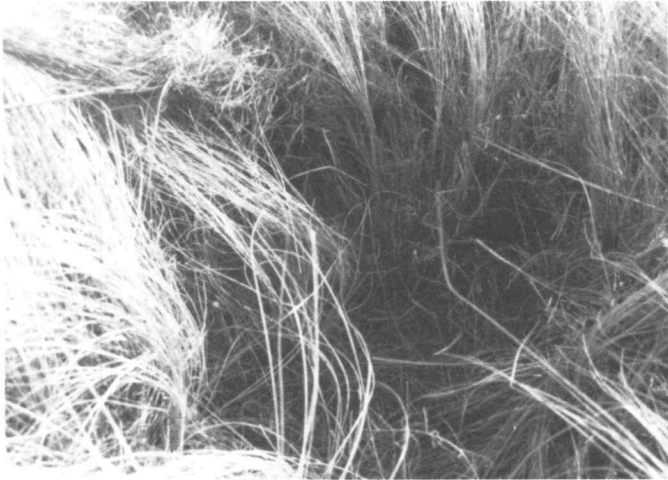
The Western Plateau MLRA near Fence Lake, NM, with a precipitation zone of 10 to 14 inches, has cool northern desert temperatures conducive to wheatgrasses. Seeding mixes included intermediate, pubescent, crested, western and jose tall wheatgrasses for the cool season components and alkali sacaton, indiagrass, and yellow bluestems for the warm-season grasses. Closely resembling the Western Plateau area seedings were those made in the Pecos-Canadian Plains and Valleys MLRA near Estancia, NM.

Management of CRP

Management of CRP should be an intensive focus during the years prior to the contract expiration date. It should be a coordinated effort among landowners, state and federal wildlife agencies, universities, and the U.S. Department of Agriculture's Soil Conservation Service. Intensive grazing management and integration of cultural practices (mowing, fertilization, prescribed burning, etc.) will have to be addressed. It will take a strong and collective effort to maintain these highly productive pastures in permanent cover. Research pastures of weeping lovegrass in the lower panhandle of northwestern Texas, produced up to 645 lbs of beef gain/acre between February 27 and August 26, 1982. Overall daily gains per head averaged 1.45 lbs, varying from 0.77 in late winter and



Field of sideoats grama, blue grama, and switchgrass on the Raymond Walker Ranch, north of Tucumcari, NM.



Weeping lovegrass decadent after five years of growth.

early spring when plants were still dormant to 2.10 lbs in June.

The majority of lovegrass pastures in New Mexico are over six years old and are showing signs of decadence or stagnation. Many pastures are carrying in excess of 13,000 pounds of residue. Lovegrass grows into rings, and productivity will decline if the plants are allowed to become decadent.

An effective method of bringing these pastures back into maximum production is through the use of prescribed burning especially following wet winters. Prescribed burning in many cases should not be applied at intervals less than five years or damage will occur to the plants. Pastures in New Mexico are coming of age for



Prescribed burning on weeping lovegrass field which has become decadent.

prescription burning, allowing for a follow-up burn at the time of CRP expiration.

Most successful livestock producers utilizing lovegrass seedings from the Soil Bank days have found that pastures need to be small for better utilization. This allows grazing and rest periods to be short during the active growing season. Three to five day grazing periods have proven successful, keeping the leaves of weeping lovegrass young and high in quality. In 1982, fertilized weeping lovegrass leaves decreased in crude protein from 14.5 percent in mid-May to 6.7 percent in early June without rotation. Through rotation management, crude protein content was maintained at 10 to 11 percent, which provides quality high enough for good cattle gains.



Wildlife food plots and windbreak on CRP field. Food plots of milo are planted directly behind interagency biologist in Clovis, NM.

The use of lovegrass pastures can complement a livestock operation which rotates cattle from cropland to native pastures by providing a highly nutritional grass in the rotation. It is possible to produce 300 lbs of steer gain/acre from dryland weeping lovegrass pastures with careful planning. Under similar intensive grazing management plans, other type of CRP pastures can provide equal or greater results.

Wildlife Benefits

The potential for wildlife benefits on CRP land was recognized and supported by locating an interagency biologist in Clovis, NM. In 1987, the New Mexico Department of Game and Fish, the U.S. Fish and Wildlife Service, the Cooperative Extension Service, and the Soil Conservation Service funded the biologist position.

To date, this biologist has conducted an excellent campaign in promoting wildlife habitat management through field trials and the news media. Food plots and wind-

breaks have been planted on CRP acreages thanks to his efforts.

The potential for wildlife after CRP is tremendous, especially for those fields which will be returned to cropland. A 1991 survey of New Mexico's CRP participants indicated that 38.2 percent of the contracted acres will be returned to cropland. With approximately 480,000 acres in CRP, the potential for windstrips in cropland could be tremendous for wildlife.

References

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Viewpoint: Wildlife and Animal Rights

Walter E. Howard

Wildlife

Rodents, rabbits and hares (jackrabbit) are the major wildlife competitors of livestock for pasture on range forage. In the United States, these competitors also include pocket gophers, ground squirrels, prairie dogs, woodchuck, kangaroo rats, meadow mice or voles, cotton rats, moles, and many others of lesser importance (Marsh 1985). Wild ungulates can locally be serious competitors to livestock for forage.

The principal predators of livestock in the United States are the coyote, domestic dog, bobcat, golden eagle, red fox, gray fox and, less commonly grizzly bear, black bear, cougar, puma or lion, jaguar, gray wolf, Canada lynx, ocelot, and feral pig.

The increased restrictions on all vertebrate pest control methodology, especially the political banning of 1080 (sodium monofluoroacetate) in baits for coyote control (MacIntyre 1982, Howard and Schmidt 1984), makes it more difficult to protect domestic livestock from predators. Controlling competing rodents and predators on pastures and rangeland is becoming more complicated due to the animal rights and environmental movements. Many former animal control attitudes had to change. When issues become political the best compromises seldom appear. This has caused unwarranted restrictions and forced hundreds of livestock operators to go out of business during the past two decades.

Society has been negligent in supporting research to develop non-lethal means of coping with species that become serious pests. New control tools are not being developed fast enough to replace the lethal and toxic control methods being phased out. Many environmental and animal rights organizations find it financially lucrative to be very critical of animal control. They do not

want to lose their bread and butter and fail to propose or assist in the development of more socially and environmentally acceptable ways to resolve the conflicts that wildlife introduces in modified environments.

Balance of Nature

Many people do not realize that when humans enter an environment, or use natural resources, this action alters the habitats of the native fauna. Once the environment has been modified, it then becomes essential to manage the species composition and diversity of the remaining native animals. This action is necessary to prevent more species from becoming locally extinct and to maintain a desirable natural balance. The natural predator-prey balance no longer exists in man-altered environments. People must assist nature by becoming a predator to help preserve a healthy balance and to prevent competition among the native species and domestic livestock.

Relatively untouched wilderness is a very scarce item. More will be lost if the main economic support to preserve these habitats, i.e., funds which game animals provide, should disappear. Today we are not dealing with true wilderness but instead are concerned with highly modified environments.

In the eyes of nature all nonhuman living things are equal and are justified in doing whatever is necessary to survive, even if at the expense of their own kind or other species. Nature is often very cruel and brutal. Humans are the most humane predator, for they are governed by numerous regulations and the only species that expresses mercy.

Public pressure for reform of any undesirable laissez faire treatment of animals has been achieved. This is good, but there has been an overkill. The extreme animal rights movement's goal of complete abolition of all exploitation of animals has had an undesirable and dramatic effect on much of the public's understanding of the balance of nature. Many do not understand nature's need for

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