Ranchers Need Support For Sustainable Ranching: What Government Can Do A Rancher's Perspective

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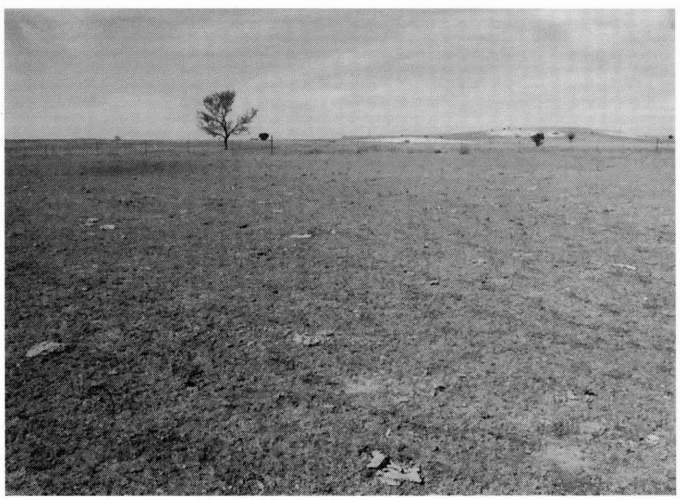
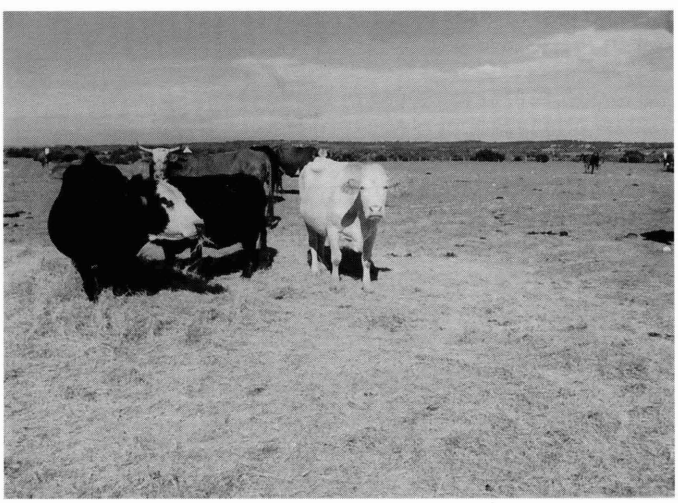
Overgrazing has caused low financial returns from ranching and has had a negative effect on our country's soil, water, air, native plant and wildlife resources (Vallentine 1990, Heady and Child 1994, Holechek et al. 1998). This problem has been on-going ever since the formation of the range cattle industry in the 1860s (Stoddart and Smith 1943).



This picture illustrates the degraded appearance of overgrazed northcentral Texas prairie land going into fall following a summer of severe drought.

Since the New Deal days of the 1930s various government subsidy programs have tried to reduce the adverse effects of overgrazing on ranching enterprises and the environment. Few, if any, of these programs have been successful. In fact, most have caused more harm than good. Instead of encouraging ranchers to stock conservatively and practice rotational grazing, past government subsidies (such as the now discontinued USDA-Emergency Payments and Disaster Loans) have contributed to market oversupply, lower livestock prices, higher feed cost, and more rangeland degradation. Instead of promoting sound range management practices, past government cost-share programs (such as the now discontinued Great Plains Conservation Program) have encouraged ranchers to load-up on fencing, watering points, brush control, seeding and other ranch improvements that, in many cases, were financially unjustified and unnecessary. A high percent of past government cost-share efforts have resulted in ranchers overstocking their grazing lands in an attempt to recoup their cost-share investments. Thus, they have ended up being a waste of both the rancher and taxpayers money, and counter-productive to rangeland health.

The inability of past programs to effectively address the root cause of overgrazing (which is too many livestock on ranches) has caused me to form the following conclusion -- it's long overdue for government to abandon the ineffective agricultural subsidy programs of the past and choose instead to implement programs that take a steady, voluntary, information-oriented approach toward lessening the adverse effects of overgrazing on ranching enterprises and the environment. Such an approach will require the formulation of agricultural policy based on scientifically proven rangeland management practices coupled with education. If this can be done, I see hope for the future of both ranchers and the environment. Otherwise, the only thing I see is the continued gradual demise of the U.S. range cattle industry and our country's soil, water, air, native range plant and wildlife resources. I believe that if overgrazing and its devastating effects on ranching enterprises and the environment is allowed to continue it will eventually adversely impact the well being of our nation.



Feeding hay in the summer—this picture is reflective of how government emergency feed programs support ranchers who overstock their grazing lands and how they contribute to surpluse beef supplies, lower livestock prices, higher feed costs, and further rangeland degradation.

The Case for Conservative Stocking

I am fundamentally opposed to government subsidy programs (Ward 1998) and I have a basic dislike for regulatory agendas. But, putting politics aside, I am convinced that if we plan to save our country's ranching industry and our rangelands, some type of wide-scale government financial assistance program will be needed to promote economically and environmentally sustainable ranching. Years of overgrazing have resulted in major water supply problems, shortage of grass for livestock, and destructive lower watershed flooding on many western rangeland areas.

This picture illustrates the fate of millions of acres of Texas prairie land that once was knee deep in native grasses and teaming with wildlife.

Based on my appraisal of current range conditions in Texas, I believe that a crash course on the importance of grasslands and their life sustaining relationship with the environment would benefit many ranchers. It also seems apparent that ranchers, agricultural universities, government, and people in general need to understand "less, down to a sustainable level, is better" rather than "more is better".

To stop the damaging effects of overgrazing I strongly advocate conservative stocking. Conservative stocking involves about 30 to 35 percent use of primary forage species. The benefits of conservative stocking to soil, water, and vegetation resources have been well demonstrated by many excellent long-term grazing studies at a variety of locations (Johnson 1953, Klipple and Costello 1960, Paulsen and Ares 1962, Houston and Woodward 1996, Smith 1967, Martin and Cable 1974, Holechek 1992, Holechek et. al. 1994). Several studies show conservative stocking will actually give higher financial returns with less risk in the long run than moderate stocking (Johnson 1953, Klipple and Costello 1960, Houston and Woodward 1966, Martin 1975, Holechek 1992). Another benefit of conservative stocking is that it enhances environmental conditions (soil stability and watershed health) and increases forage production through time on most degraded rangelands.

This picture illustrates the effects of conservative and heavy stocking on bluestem prairie land in northcentral Texas.

Recently the Environmental Protection Agency has become interested in developing programs for both farmlands and rangelands that would reduce carbon dioxide levels in the atmosphere. Achievement of this goal depends on improving the carbon sequestration capabilities of degraded soils by increasing both living and non-living vegetation (i.e. above and below ground biomass). Already government programs are being considered that would pay farmers to use practices (no till, minimum tillage) that retain crop residues for carbon sequestration (Soil Humus Improvement Program, Gutknecht 1998). Conservative stocking is the surest way to apply this same approach to rangelands.

The Proposed Program

As a substitute for the ineffective programs of the past, I recommend strong consideration of a government rangeland conservation program centered around offering ranchers an "economic incentive" to conservatively stock their grazing lands and provide them range management education.

The objectives of the program would be three fold: First, encourage ranchers to reduce livestock numbers nationwide, thereby reducing market supply and enhancing livestock prices. Second, help prepare ranchers for times of adversity, such as times of drought and low livestock prices, thereby reducing climatic and financial risk.

And third, promote the conservation and improvement of soil, water, air, native range plant, and wildlife resources by taking the stress of overgrazing off the land. To meet these objectives, a commitment of no less than ten years from both government and ranchers would be required.

It should be noted that the government program that I'm recommending would be for the conservation of privately owned rangelands only. This is not a program to be used in conjunction with intensively managed tame pastures. My definition of rangeland follows Holechek et al. (1998) which is any expanse of land that is suitable for grazing by domestic livestock and wildlife; and is not fertilized, cultivated or irrigated. My definition of high-intensive tame pasture is simply, any grazing land primarily consisting of non-native plant species that requires rancher dependency on the use of irrigation or high-cost fertilizer, pesticides, or farm machinery to grow sufficient feedstuff for their livestock.

Administrative components of the program

There are seven essential components in the administrative phase of my recommended government rangeland conservation program:

Component one involves interested livestock growers on private lands making application with the appropriate government agency (United States Department of Agriculture Natural Resources Conservation Service or Farm Service Agency). The program that I'm recommending will not require governmental restructuring of any kind since capable government personnel are readily available through each of these governmental agencies.

Component two involves the appropriate government agency determining the eligibility status of the applicants. I recommend that applicants be considered eligible if they own or lease private grazing lands and own livestock (cattle, sheep, horses, or goats).

Component three involves the appropriate government agency assigning qualified personnel (or a private consulting firm) to determine the carrying capacity of each applicant's grazing lands. I recommend that wildlife resources be taken into consideration when determining carrying capacity. Carrying capacity is the maximum number of animal units (cattle, sheep, horses, wildlife, etc.) that a particular parcel of rangeland can sustain over time without degrading soil, water, air, range forage and wildlife resources (Society for Range Management 1989). I've always been amazed that so few ranchers and professional range managers have made it their first priority to know the carrying capacity of the land under their care. It should be noted that USDA-NRCS has guides that will give reasonable estimates of carrying capacity for most rangelands. In addition procedures by Holechek (1988) and Troxel and White (1989) can be used to determine carrying capacity.

Component four involves the appropriate government agency assigning the maximum allowable number of livestock (cattle, sheep, horses, goats) that applicants can stock on their grazing lands during the contract period. I recommend that the maximum allowable number of livestock an applicant can stock while under contract not exceed 65 percent of carrying capacity of their grazing lands. This I believe, plays a key role in being a long-term survivor in the ranching business and protecting the environment (see Boykin et al. 1962).

Component five involves the appropriate government agency determining the annual per acre contract value of applicants' grazing lands using most current nationally recognized carbon sequestration, watershed health improvement, wildlife enhancement, and cultural enrichment (open space, scenery and aesthetic) value figures. I recommend that a special committee of agricultural economists be assigned the task of determining annual per acre contract values. I also recommend that the process of determining per acre contract values include input by range professionals who are familiar with the range forage production potential and limitations of applicants' grazing lands.

Component six involves an appropriate government agency offering eligible applicants an opportunity to enter into a 10-year contract arrangement with government to run fewer livestock and manage their grazing lands primarily for conservation, ecological and aesthetic purposes. I recommend that before any contracts are signed by either party, the appropriate government agency fully explain to each applicant the legal obligations of both parties under the terms of the contract agreement.

This picture shows the visual appearance of conservatively stocked bluestem prairie land going into fall following the severe Texas summer drought of 1998.

Component seven involves the appropriate government agency ensuring program compliance. Rancher compliance can be checked by government range conservationists conducting spot checks and appraising current range conditions. Grass stubble heights could serve as a basis for compliance (See Heaty and Child 1994, and Holechek et al. 1998).

This is another picture of conservatively stocked bluestem prairie land going into fall following the severe Texas summer drought of 1998.

Contract agreement

Under the terms of the contract agreement, the government would agree to compensate ranchers for their willingness to run fewer livestock and manage their grazing lands primarily for conservation, ecological and cultural enhancement purposes by making annual payments to livestock growers for a period of ten years. To encourage a large number of ranchers to enter into a long-term range conservation agreement with government, I recommend that annual incentive payments to ranchers be equal to no less than 65 to 100 percent of the local grazing lease value of applicants' grazing lands, both owned and leased. I've asked several Texas ranchers their opinions on this part of the program. Based on their opinions, it would require annual incentive payments equal to no less than the above recommended amount before they would consider committing to a long-term conservation program centered around ranchers running fewer livestock.

I recommend that, during the contract period, ranchers receiving government incentive payments be required to incorporate the following two important range management practices in their livestock grazing operations: (A) manage their grazing lands within an assigned range of animal units (which may or may not involve managing populations of both livestock and wildlife); and (B) rotate the grazing of their livestock (cattle, sheep, horses, goats) according to a low-cost rotational grazing plan such as the Merrill 3 herd/4 pasture system. I would further like to see incentives for weed and brush control. Here I can see real justification for an additional agreement between government and ranchers to cost-share needed range improvements.

In addition to the above conditions of the contract agreement, I recommend a special provision be included in the agreement that sets forth the principle that during times of disaster (such as during times of extended drought) livestock be reduced to what the range forage resources will support. Over the years, I have learned that the key to minimizing the damaging effects of drought on ranching enterprises and rangelands is to keep stocking levels compatible with existing forage resources. I have also learned that when stocking rate reductions are initiated early, fewer animals will have to be culled over the course of a drought (Gill 1998). The purpose of this stipulation in the agreement would be to prevent the occurrence of overgrazing during times of minimal range forage growth. My definition of overgrazing is reducing grass stubble heights below the guidelines provided by Holechek et al. (1998). This means maintaining height levels of 12 inches on tallgrasses, 6 inches on midgrasses and 2 to 3 inches on shortgrasses.

Program supported by education

Considering all the money that federal and state governments have spent on range research and management programs, I find it truly amazing that many ranchers have limited knowledge of this subject. Therefore, I strongly recommend that a governmental educational initiative be attached to this program. The intent of such an effort should be to bring the concepts of rangeland management into clear focus to the average rancher, and to establish important fundamentals on management of desert, prairie, and forest rangelands. The information presented must closely follow the techniques set forth by current scientific information. It is my opinion that government encouragement of ranchers to learn and apply the principles and practices of sound range management will play a vital role in sustaining the economic and ecological benefits of my recommended government program over the long-term.

Some advantages of the program

I believe the rangeland conservation program that I've presented offers real long-term benefits to ranchers, the nation and the environment. Some of the advantages of "reducing number of livestock on the ranch" to ranchers would include minimizing financial and climatic risk, lowering production costs, reducing market oversupply, improving financial returns, and maintaining a valuable cultural heritage.

Some of the benefits of "taking the stress of overgrazing off the land" to the nation and the environment would include promoting the preservation of a sustainable source of food and fiber, open space, the natural beauty of our country's rangelands; and a way of life that promotes family values and close ties to the land.

Other important benefits of "ranchers running fewer livestock" would include improved range plant vigor, regeneration of range plant species and natural wildlife habitat, improved carbon sequestration capabilities of degraded rangeland soils, improved water quality and water yield from grasslands, reducing loss of soil by water and wind erosion, and a quick reduction in the amount of methane gas produced by ruminant animals.

I believe it is important to point out that the type of government program I have presented could be used to benefit society in several ways: First, a national insurance policy against climate change. Second, a national watershed and wildlife habitat enhancement initiative. Third, an alternative approach to preserving agricultural land. Fourth, as an alternative approach to ensuring a sustainable future for ranching and protecting the environment. And fifth, a vehicle from which to promote multiple land use.

Closing comments

As previously mentioned, I've always objected to governmental subsidy programs to ranchers and farmers in the past. But now, after years of having to deal with low financial returns from ranching and non-stop rangeland degradation, I believe that the implementation of the type of government program that I've discussed is highly justified. I believe such a program will be required to stabilize the ranching business and put an end to the negative effects caused by overgrazing on ranching enterprises and the environment. We need to begin fixing our ranching and environmental problems at their root cause, rather than throwing money at our failures, after all hope for effectiveness is gone.

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