

Opportunities to Improve Rangelands

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According to recent reports nearly three-quarters of the rangeland of the U.S. is in fair or poor range condition; that is, it is producing less than 60% of its potential forage. The implication is that productivity of our rangelands is declining. But increases in population, economic activities, and income have boosted the demand for nearly all resources from our nation's rangelands. Any accompanying decline in the rangeland area intensifies the pressure even more. We cannot cope with this pressure without making significant changes in management. Positive action must be taken now if we are to satisfy potential demands for range products without damage to the land and environment.

My observations are biased by my experience as a range conservationist for the Soil Conservation Service in West Texas during the drought of the 1950's, but I feel that our ranges are in better condition now than when the conservation movement began. Credit for the improved range condition should be given first to the ranchers who apply the technology and the finances to conserve our land resources. However, it must also be attributed in large part to the agency personnel who made the appropriate technology available to the private land manager or applied it to public lands. But it is the rancher who makes the management decisions and reaps the rewards or bears the failures.

Despite some reports to the contrary, public rangelands have also improved. This improvement would probably have been greater except for political pressure from special-interest groups. The resultant well-meaning but unrealistic regulations that restrict professional judgement of land managers have imposed excessive administrative constraints. If agency personnel could dispense with unnecessary activities such as OSHA reports and environmental impact statements, they could get on with the more important task of effective land resource management. Somehow we must let well-qualified agency people get back to the task of managing public lands without edicts and pressure from a well-meaning public who is not technically capable of sound natural resource management.

Ranchers are also subject to the impact of political maneuvering and excessive regulation. The rancher is not only a true ecologist but puts his money and dedicates his life to producing food, fiber, and amenities for the rest of the nation. How can the public justify any action to deny them such tools as 2,4,5-T for brush control and 1080 for coyote control when ultimately the public will suffer from higher meat prices and reduced range productivity?

The 1976 assessment by the Forest Service showed that demands for range products will increase above the levels that can be supplied with present management programs and existing facilities. About 1.1 billion acres or 54% of the land area of the U.S. is rangeland or noncommercial forest useable as range. About 70% of this range is under private and nonfederal ownership. The land under private ownership is generally the most productive land. Therefore, efforts to increase range productivity should concentrate on the private land sector,

especially since legal constraints and policy presently preclude most opportunities for maximizing livestock production on federal lands. This approach is in concert with our free-enterprise system, which has made our country the great nation it is. Given the proper incentives, our producers can and will apply the technology and effort to improve their land and produce the goods and services desired by the public without detriment to our environment.

Federal Agency Opportunities

There is ample opportunity for agencies of the Departments of Agriculture and Interior to properly manage lands for which they are responsible, and to provide technology and incentives to private land owners. Their progress on public land depends upon investments in good management, research, and physical facilities. Their role with private lands is to set a good example and to help people help themselves.

Resource Inventory and Monitoring

The first step in placing public and private range management on sound footing is an assessment of the potential productivity, current condition, and trend. A national assessment such as required by the Resources Planning Act of 1974 (RPA) and the Resources Conservation Act of 1978 (RCA) would be the basis for comparison and serve as a basis for policy recommendations for future management direction.

The importance of a soil survey as the basis for a land inventory cannot be over-emphasized. Land is the basic resource and must be accurately assessed and classified so that land use and treatment can be based on land capability. The Soil Conservation Service has a land capability classification system and a range site classification system related to soil taxonomy. This system permits identification of land management problems, recommendation of conservation alternatives, determination of best use, and sound assessment of the potential for various uses of land. The current RPA assessment should make use of this system.

Additionally, monitoring systems should be developed which incorporate new and developing technologies such as remote sensing. Such new technology should allow improved soil surveys, range ecosystem delineation condition and trend surveys, and monitoring of other natural resource systems.

Education of Public and Producer

Developing range livestock resources through public education may be the most effective community resource development tool available in many rural areas of the western states. It certainly presents opportunities for improving range conditions by teaching current technology. Many sound technologies are not being utilized to their potential to improve rangeland productivity. They are locked up in files, books, reports, and technicians. A more effective program of extending this technology should be devised. The existing USDA land-grant system probably has been the most effective system yet devised, but efforts toward extending range knowledge should receive more attention.

Increasing result demonstration efforts should also be considered to seek new, innovative ways to intensify educational

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effort about range. Result demonstrations are exceptionally effective for promoting application of latest technology and provide large-scale tests for new research. A concentrated effort to identify, document, and publicize examples of successful application of range improvement practices will accelerate their acceptance by producers.

Technical Assistance

Although the technical assistance provided by Federal agencies has resulted in significant progress in the adoption of range management practices, there are many opportunities to increase such technical assistance. More emphasis should be given total range management planning assistance. The systems approach, an integrated approach to planning and management, should be utilized more fully.

The number of well-trained range technicians who furnish direct assistance to land managers should be increased. Although additional innovative techniques of presenting technical assistance would improve their acceptance, the transfer of range management information to land owners can be accelerated by increasing the competency level of the range technician. This can be accomplished by employing highly qualified range professionals and emphasizing continuing education. Current Civil Service standards for range conservationists are too lax. The result is employment of individuals with minimum training in sound range management technology, and worst of all, little motivation. Agency administrators should demand improvement of this situation.

Federal agency assignments and responsibilities in range matters need to be more clearly defined. The value of range should be stressed, especially on forested ranges where other uses have received priority. The multiple-use concept must be practiced rather than being a "paper or lip service" action. Funds and range-trained personnel must be made available to agencies so that land owners can be assured of sound technical assistance.

Improved Financing

Financing is a primary limiting factor to implementation of range improvements. High interest rates and the lack of intermediate-type loans, which match repayments to the schedule of returns expected, prevent ranchers from applying many improvement practices. Consideration should be given to federal participation in offering of guarantees and lower interest rates on longer-term loans with built-in flexible repayment plans.

Incentives

Technical assistance cannot be fully utilized when financing and low economic returns discourage short-term investments in conservation and production practices. Our cost-share programs should be encouraged because they allow implementation of range management practices that cannot be installed otherwise. I recognize the proliferation of cost-sharing practices and the controversy that exists concerning conservation versus production practices. However, most rangeland has a relatively low capacity to absorb inputs profitably, and the rancher cannot always justify conservation practices without obtaining returns on his investment. We must, as a society, be willing to invest in the future with cost-share programs which will assure conservation of our range resources. Returns to society will be reflected in increased rancher and community stability. Generally, the long-term agreements through the Great Plains Conservation Program have been most successful. This program should be extended and examined for opportunities to offer incentives for both conservation and ecological improvement practices.

The requirements concerning best management practices

(BMP's) called for by the Section 208 planning program of the Water Pollution Control Act Amendments should be examined for opportunities to incorporate ecological range improvement with water pollution control practices. Cost-share incentives may be necessary to motivate ranchers to utilize the best management practice. Application of the proper set of best management practices will not only conserve our soil and water, but increase range productivity. Implementing BMP's to forestall erosion, to safeguard water quality, and to meet the goals of PL 92-500 is a critical challenge facing our nation today and has great potential for improving rangeland productivity.

Research Opportunities

In 1977 a national planning committee of the Agricultural Research Policy Advisory Committee found that in the 8-year interval from 1967 to 1975, the emphasis devoted to range and forage research declined from 674 to 639 scientific man years, and that there has been a substantial decline in the Research Problem areas that have a direct input to improving range and forage resources. If our nation's ranges are to reach their potential, there is an urgent need to initiate a coordinated, nationwide research program in range management. This will require strengthening of the Land Grant-Cooperative State Research Service system. The current trend of competitive funding through extramural or competitive grants must not replace, but should add to, the Cooperative State Research Service-Agricultural Research program. Range research in the Agricultural Experiment Stations backed by state dollars, federal dollars, and grants is the best approach to securing long-term improvement of our range resources. A competitive grant system will help, but this program should not be allowed to detract from the pragmatic research program of the State-Federal Experiment Station system.

The need for regulatory and definitive research should not displace management-oriented research. We need new innovative efforts (both basic and applied) in management and biological research applicable to range. Most past research has focused on component parts of the ecosystem, primarily investigation of factors which affect proper stocking and development of range improvement practices as separate entities. Future research will require greater emphasis on an interdisciplinary approach within the system's framework." The realization by range professionals and laymen alike that range management includes resource management for all products and uses such as livestock and wildlife grazing, recreation, and watershed is long overdue. The challenge is to integrate range research efforts with that of other disciplines and to place it in perspective for society.

Management Opportunities

Intensive management with application of the latest research technology is essential for improving productivity of our ranges. More intensive management requires more competent management expertise. Agencies must strive to obtain better trained personnel and to provide their personnel with continuing education while providing technical assistance, education, incentives, and better financing to producers. Education and technical assistance should include statistical and decision-making assistance whereby each range use is integrated with all other uses within an ecologic and economic framework. Given the economic incentive and the management tools necessary, the rancher will improve the productivity of his rangeland and provide society a ready supply of its products while protecting the environment.