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CURRENT ISSUES IN RANGELAND RESOURCE ECONOMICS

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LIVESTOCK ON PUBLIC LANDS: YES!

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on Range Economics

Grazing on the western "open" (Federal) ranges is historic, exceeding the century mark. Why would such a long-standing traditional use of the range be under pressure to be nullified as a legitimate use of the public land? The cry for "cattle free by '93" is beginning to be echoed by some special interest groups and sentiments of concern are being expressed by others. At least one group has taken the cry far enough to establish sabotage plans for disabling or destroying range improvements and structures associated with grazing on Federal land. Grazing livestock on Federal lands is not the only controversy. The issues include old-growth timber and the spotted owl, harvesting aspen, wildlife habitat, global change, ecological continuity, and options for the future, among others. Is livestock grazing an artifact of the other issues associated with environmental consciousness?

The laws are very clear that the Federal land is to be managed for the benefit of society and that there are recognized legitimate uses of Federal land. Grazing is a legitimate use. This is clearly not sufficient cause to stop any further discussion because the laws have been enacted to reflect the broad values of society which are continually changing. An examination of these values and the merits of arguments against grazing helps bring the issues into focus.

Arguments Against Livestock Grazing

Rangelands represent approximately 34 percent of the area of the United States and 43 percent of this area is under Federal management. Rangeland is not the only source of forage for livestock grazing. Approximately 17 percent of the nation's forest land is grazed by livestock (Joyce 1989). Combined, the Forest Service and the Bureau of Land Management provide approximately 29 million AUM's of grazing annually. Nationally this constitutes only seven percent of the total grazed forages, but regional supplies vary from four percent to 34 percent of the regional totals (Joyce 1989). One argument for the elimination of public land grazing is that its contribution to the national grazing resource is small and its loss would not significantly impact the livestock industry.

Although the total amount of forage provided by the public lands appears small in comparison to the national

forage base, the public lands are grazed primarily by cow/calf pairs. The significance of this is that a substantial portion (20-22 percent) of the yearlings that are consuming forage nationwide originate or spend some portion of their life on public lands.

Seasonal public land forage dependency varies regionally. For many operators it is the sole source of forage during the summer grazing season. One cannot dismiss the importance of Federal forage simply by demonstrating that the total forage is small compared to the national need. Seasonal use is an important element of the debate on the importance of public land grazing.

Grazing Fee

Controversy abounds concerning the Federal grazing fee (Gardner 1989). Debate continues and will as long as some special interest groups believe that the relatively low fee reflects a "subsidy" to the livestock industry and causes overgrazing (Quigley et al. 1988, Workman 1988). The perception of subsidy is strong enough to convince many that as long as the "subsidy" continues it constitutes a valid reason to stop Federal land grazing (Ferguson and Ferguson 1983).

Antigrazing groups argue that fees far below private lease rates cause excessive use. Counter arguments are that the level of grazing use is determined by agencies considering only the carrying capacity of the range resource, that nonfee costs are higher on Federal lands, and that grazing users have invested in permits. Gardner (1989) concluded that raising fees would decrease grazing use, but that demand for grazing would exist. Thus, increasing fees would not likely provide the elimination of public land grazing. Likewise, because fees are only a small portion of the cost of grazing on public land, it is unclear that reducing the fee would result in substantial increased pressure for more grazing.

Range Condition

The condition of Federal rangeland is another point of discussion among advocates of decreased grazing. The trend is up for the majority of Federal grazing land and in 1986 the BLM reported 18 percent of its rangeland was in

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poor condition, while the National Forests reported 20 percent of the rangeland in an unsatisfactory management situation (Joyce 1989). Advocates of eliminating public land grazing argue any land in unsatisfactory condition is an unacceptable position.

Riparian Management

Recent controversy about riparian allocations and conditions are a driving force behind some groups pressing for elimination of public land grazing. The principle users of riparian areas consider themselves in direct competition for the riparian resources. The battle lines that are drawn from such an argument pit user against user. The underlying concept is that the true conflict maybe between users, rather than the perceived conflict between uses.

It is not difficult to understand why the current controversy is raging. The question remains as to whether the reasons for continued public land grazing outweigh the opposing reasons.

Arguments for Livestock Grazing

Tradition

Tradition may be a very poor reason to perpetuate a given management practice or use. The traditional aspects associated with public land grazing use cannot be ignored. This is particularly true when one considers the economic consequences of complete elimination. Many ranches would no longer constitute a viable production unit and would, sooner or later, leave the market. The contribution of livestock grazing on Federal land to local economies is obvious. It may be the case that many of the communities that thrive in the sparsely populated portions of the west would be uninhabited if it were not for a viable livestock industry. The livestock industry is yearlong, rather than seasonal, and thereby contributes to the stability of the economy.

An issue that should be addressed under any proposal to eliminate grazing on Federal land is the impact that changes in the agricultural base for the rural mountainous areas of the west would have on water and fisheries. Changes could have an adverse impact on water production and timing because of a decrease in irrigation of mountain meadows.

Forage as an Economic Resource

Range forage is an intermediate good that has the capability to contribute to the production of livestock and wildlife. The relationship of two or more products can be described by a production possibilities curve. This

representation depicts total amounts of livestock and other resource uses that are possible when produced together. The selection of the optimal level of each depends on the relative values of the two resources. If the unit value of grazing livestock were large compared to that of the other resource uses, the optimal level of grazing would be greater than if the reverse were true. Resource uses have some value; therefore, the production of some combination of uses, including livestock grazing, is the economic optimum.

In a recent survey of Forest Service employees it was found that their perception of the public values associated with grazing on Federal land were not nearly zero compared to the other multiple-use values. Grazing was found to contribute about 10 percent of the total value associated with the multiple uses, timber 15 percent, and water, recreation, and wildlife 25 percent each (Quigley 1989). This would indicate that grazing represents a substantial value as compared to the other uses and elimination would be inappropriate. Loomis and others (1989) have developed commensurate values for livestock and wildlife use of range that can be used to determine optimal combinations of different grazing animals.

There may be specific instances where removal of livestock is the only acceptable resolution. It does not follow that all public lands require such drastic measures.

Complementary Relationships

Recent research has demonstrated that livestock grazing has potential as a silvicultural tool (Doescher et al. 1987, Krueger 1987, and Pearson 1987). Grazing has been found to be an effective technique of brush control, seedbed preparation under timber stands, and as an effective technique to obtain income from timber land between harvest cycles (Ritters et al. 1982). Transitory range constitutes a substantial untapped source of forage potential. Productivity can be as much as 10 times that of open rangeland.

Livestock can be used to manipulate the range resource for other uses. Livestock grazing can increase the availability of good quality forage for big game (Anderson 1989). National Parks have requested livestock operators to graze selected areas of National Parks to remove dense-coarse forage from areas frequented by recreationists.

These complementary relationships provide justification for continued use of livestock grazing on the public lands. As more detailed knowledge is gained other benefits from grazing, as well as other grazing techniques, are likely to arise.

Comparative Advantage

Local economies where public land grazing constitutes a significant portion of the total grazing resource may have a comparative advantage in the wise use of the resource for livestock production purposes. With considerable interest being generated nationally concerning rural economic development, it is important that the local communities and rural areas that have a comparative advantage in raising livestock be permitted to produce livestock products. Removing livestock grazing from Federal land would have a destabilizing affect on these local economies.

Obstacles to Achieving Harmony Among Uses

There are obstacles that must be overcome before the issues associated with livestock use on public land are resolved.

Grazing Fees

Grazing fees are perceived by many as being a subsidy to the livestock industry. Fees have been at the forefront of controversy in the public grazing forum for many years (Workman 1988). Removing the subsidy "stigma" is vital to the credibility of livestock use on public land. Some progress has been made, but considerable room exists for improvement (Quigley and Thomas 1989).

Range Condition

The abuses of the past must be corrected to adequately address the viability of the future of grazing on public land. Advances have been made in the reversal of downward trends in condition, but much work remains. A key to this rests with adequate funding to allow planning, management, and administration to occur. Cattle are not the only animal that requires management on rangelands. In many instances the recovery of rangeland is dependent on management of wild horses and burros as well as wildlife. The potential for deterioration of rangeland exists in the absence of livestock.

Deteriorated Riparian Areas

The public is demanding that attention be given the areas adjacent to streams and standing water. Solutions to riparian use conflicts must be determined locally, no national fix is going to resolve the concern. New and innovative techniques to control livestock hold promise to help in this resolution (Quigley et al. [in press]), as does new fencing techniques and coalitions of interest groups. With changes in grazing management, riparian areas can be improved for multiple purposes while producing livestock (Elmore and Beschta 1987).

Focus on Issues

The focus of discussion must be centered on the conflict that users are espousing. Techniques to resolve the conflicts through the formation of partnerships and coalitions among interested groups with concerns about the range resource are essential for continued use of the public land by livestock.

Increase Knowledge

The knowledge base for production possibilities in a multiple use concept is lacking. Research can focus on the joint production processes possible under varying circumstances as shown by Standiford and Howitt (1989). Under what conditions can the joint production of timber and forage for livestock yield greater benefits for society than producing either individually or with one being dominant to the other in priority? What management scenarios result in recreation, wildlife, and grazing benefits simultaneously being greater than attempting single or dominant use management approaches? These and other similar questions are unanswered, yet the knowledge may provide additional evidence concerning the viability of livestock grazing on the public land.

Discussion

Marion Clawson presented five criteria that must be considered in any discussion of forest-range policy (Clawson 1975).

- Physical and biological feasibility and consequences
- Economic efficiency
- Economic equity
- Social acceptability
- Operational practicality

Clawson points out that not all conditions are mutually exclusive, nor will the lack of a policy meeting all criteria result in rejection of the policy. He provides the list as important criteria to consider in any policy decision.

Applying Clawson's criteria to the continuance of livestock grazing on public land results in mixed signals on some lands. The consequences and biological feasibility of continued grazing of some tracts of land in poor condition would certainly be a questionable practice unless it could be demonstrated that the trend is upward and management is in place to continue that trend. It must be remembered that 80 percent of National Forest rangeland is in satisfactory range condition and that 35 percent of BLM rangeland is in good or better range condition (Joyce 1989). One must be careful not to judge the fate of all public land by the small portion that may be in poor condition or receiving inadequate management.

From an economic efficiency argument one must consider the costs and benefits of continued grazing. Opportunities for joint production with multiple outputs should be considered. Too often simple comparisons of revenues to the treasury and costs of administration are made rather than societal benefits and costs being the yardstick for comparisons. The equity considerations of removing livestock from public land cannot be ignored. Is society prepared to provide payments to the ranchers who are displaced? The considerable investment ranchers have made in improvements and permits cannot be ignored.

Is it socially acceptable to remove all livestock from public land? Given the strong lobby that exists for the livestock industry, it is unlikely rural communities would stand silently by as their economic base is destroyed.

The operational practicality of the proposal to remove all livestock from public land is questionable. Solutions to difficult management questions about livestock use in riparian and other sensitive areas have been demonstrated. Team, partnership, and consensus approaches have proven a viable approach to resolving conflict in these areas. Local groups, agencies, and the livestock industry have invested considerable effort and resources into creating successful management on many public grazing areas. The base of support is large and a national push to dismantle the work would be opposed.

Lasswell (1958) has stated that politics are the process of determining who gets what, where, and when. The vital questions of economics deal with the distribution of scarce resources among competing uses and users. The obvious similarity of the political goal and the economic process demonstrate that many questions will not be resolved strictly through the application of economic principles, yet economics has the capability of recommending solutions. The resolution to the level of livestock grazing on public land is ultimately a political decision, tempered by information from the varied disciplines that have interest in public lands. It seems unlikely that society will decide that the costs of public land grazing outweigh the benefits.

A combination of products, including livestock grazing, will be produced from Federal range. The mix of these products will continue to change as their values to society change over time. The question is not if there will be livestock grazing on public lands, but what the level of grazing will be.

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