Rangelands

Society for Range Management

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August 1984

An issue dedicated to mark the 50th Anniversary of the passage of the Taylor Grazing Act

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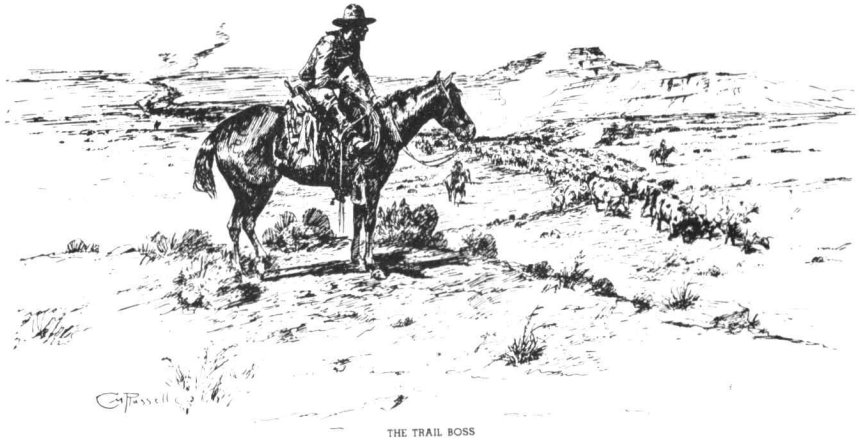

THE TRAIL BOSS

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The objectives for which the corporation is established are:

—to develop an understanding of range ecosystems and of the principles applicable to the management of range resources;

—to assist all who work with range resources to keep abreast of new findings and techniques in the science and art of range management;

—to improve the effectiveness of range management to obtain from range resources the products and values necessary for man's welfare;

—to create a public appreciation of the economic and social benefits to be obtained from the range environment;

—to promote professional development of its members.

Membership in the Society for Range Management is open to anyone engaged in or interested in any aspect of the study, management, or use of rangelands. Please contact the Executive Secretary for details.

Rangelands serves as a forum for the presentation and discussion of facts, ideas, and philosophies pertaining to the study, management, and use of rangelands and their several resources. Accordingly, all material published herein is signed and reflects the individual views of the authors and is not necessarily an official position of the Society. Manuscripts from any source—nonmembers as well as members—are welcome and will be given every consideration by the editors. **Rangelands** is the nontechnical counterpart of the **Journal of Range Management;** therefore, manuscripts and news items submitted for publication in **Rangelands** should be of a nontechnical nature and germane to the broad field of range management. Editorial comment by an individual is always welcome and subject to acceptance by the editor, will be published as a "Viewpoint."

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COVER: After 50 years of managing the public rangelands under the Taylor Grazing Act, controversy over their use and conditions is still unresolved. In this photo by Grant Baugh, Gene McLaughlin, a range conservationist in BLM's Vale, Oregon, district stands in knee high forage. In the year of the picture, growth was described by some as "the best ever" after a warm winter and a moist spring and summer.

Managing the Public Rangelands: 50 Years since the Taylor Grazing Act

Joseph V.H. Ross

Open range, free and uncontrolled grazing characteristic of early development of the western livestock industry ended June 28, 1934, when President Franklin D. Roosevelt signed the Taylor Grazing Act. That Act is still the major legal basis for regulating grazing on our public lands.

When Congress passed the Homestead Act in 1862, there was plenty of land and no need for management classification of the public lands. After 1875, with the growth of cattle kingdoms and continued westward migration of homesteaders, conflicts arose over the use of public lands. The Public Lands Commission of 1880 recognized impending difficulties among public land users. While the commission's recommendations were never adopted, the need was identified for special legislation to address grazing land specifically and to classify it for best possible use.

In 1905, another Public Lands Commission suggested that Federal grazing districts be created, but little was done. Shortly thereafter, however, the President placed a large amount of grazing land in the National Forest Reserves to provide some protection of forage lands from overgrazing.

As the Federal forest, park, and refuge system increased, the public domain continued to shrink. As grazing pressure on the public lands increased, some groups lobbied for a leasing system, believing it unwise to leave the public lands as uncontrolled commons. Legislation, however, was directed toward transferring the lands to private ownership under various homestead acts.

Although about 285 million acres were claimed under the homestead laws, many homesteaders failed to establish successful ranching operations on 640-acre dry range areas.

In 1928, Congress established the experimental cooperative Mizpah—Pumpkin Creek Grazing District in Montana to analyze the feasibility of leasing federal land for grazing.

Overgrazing and erosion continued in many areas and rivalries increased among stockmen for control of grazing land. President Herbert Hoover, in 1929, frustrated with the various grazing land controversies, suggested that remaining unsurveyed and unappropriated public lands be ceded to the states. He appointed a committee to study the problem.

The committee's report, recognition of prior policy failure, the depression, drought conditions in the Great Plains, and success of the Mizpah—Pumpkin Creek Grazing District were important factors responsible for the eventual comprehensive grazing law. Representative Edward T. Taylor of Colorado introduced his bill in the first session of the 73rd Congress. On June 28, 1934, President Franklin D. Roosevelt signed the Taylor Grazing Act ending more than half a century of indecision over Federal management of the Nation's public lands.

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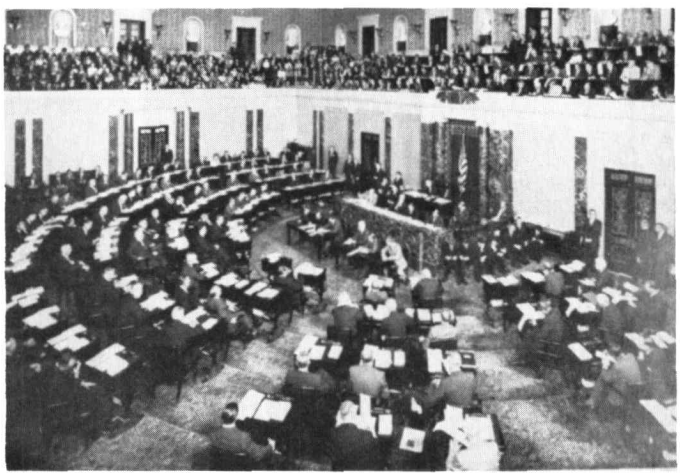


Enactment of the Taylor Grazing Act.

The First Decade (1934-1944)

The Taylor Grazing Act provided for controlled grazing on our public lands. An important provision provided for classifying all land in the grazing districts. By Executive Orders in 1934 and 1935, President Roosevelt withdrew from settlement all unclassified land in twelve western states outside of Alaska. For the first time in American land history, authority was given for classifying land for its best use. The Taylor Act was, in fact, a multiple-use act. The law also provided for a distribution of funds received from grazing fees, as well as for land exchanges between the Federal government and the states.

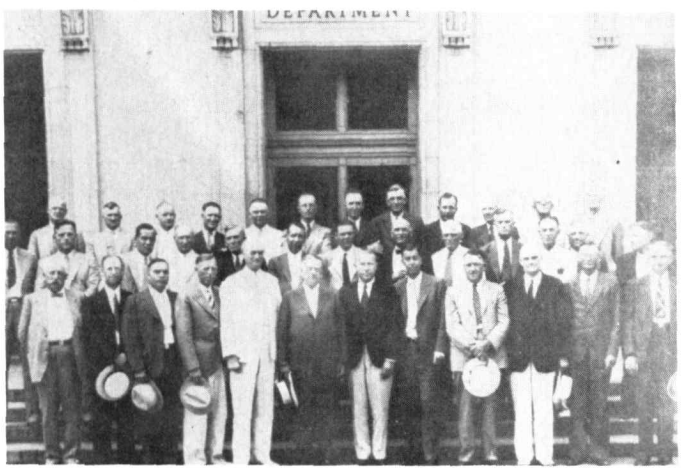
The jurisdiction of the remaining public lands was temporarily solved by retaining land disposal functions in the General Land Office and creating a separate Division of Grazing. With no appropriation, the original staff consisted of people loaned from other agencies. There were no maps of the public domain, and the only people who knew where the grazing lands were located were the stockmen who used them. Although the land was identified in tract books, they were unwieldly and hard to use.

The Taylor Grazing Act provided for cooperation with local stockmen. Ferry Carpenter, first director of the Division

In passing the Act, Congress authorized the establishment of a new Federal agency, the U.S. Grazing Service, to administer the new law. The Grazing Service was seen as a single-purpose agency created to serve a single constituency, the Western livestock industry. In 1946 the functions of the Grazing Service and the General Land Office were combined into a single agency, the present Bureau of Land Management.

of Grazing, formed stockmen advisory boards which, by 1939, were given legal recognition by Congress. In 1940, the National Advisory Council was created.

The Act provided that specific portions of the Federal range be allotted to the use of individual livestock operators. Local advisory boards made the allotments and tried to adjust grazing to the range's capacity. The state committees helped set grazing district boundaries in an effort to organize the vast areas of western public lands into manageable units. On March 23, 1935, Wyoming Grazing District No. 1 became the first district. Before the end of that year, 15,000 licensees were authorized to graze a total of 8,396,232 livestock on Federal rangelands.



Shortly after the Act was passed members of state advisory boards met in Washington and posed for this picture with Interior Secretary Harold Ickes (front row 6th from the left) and Ferry Carpenter (front row 8th from left), who was the first Director of Grazing, appointed on September 12, 1934. In his testimony before Congress, Ickes had estimated that he could administer the new Act for $150,000 a year.

The scope of the original Taylor Grazing Act was limited to 80 million acres. Within the first year, it was evident that the limitation would not meet the demand for grazing. Initial permit applications covered more than twice the authorized land. In 1936, the Act was amended to provide a maximum of 142 million acres. In 1954, the limitation was eliminated entirely.

Grazing districts are 3 to 9 million-acre units of Federal range, created and administered under the Taylor Grazing Act. Unreserved public land within grazing districts is used principally by individuals for grazing and other purposes. The Act also provided for leasing other units of public land to stockmen. These lands are known as Section 15 lands since they are administered under Section 15 of the Act and lie outside of grazing districts.

The Division of Grazing, known after 1939 as the Grazing Service, faced an enormous task. Lack of data complicated the determination of proper grazing capacity and forage production and facilities on private properties used with the public range. As information was gathered, local adjustments were made, range areas assigned, and controversies settled.

World War II changed the western rangelands management. Planned reductions in grazing were replaced with a program for 1,600 war emergency licenses to increase production of meat, wool, and hides. Increased livestock production and other competing uses of range forage were evaluated. Wildlife forage was rated less important, and control measures were enforced. The Grazing Service also began an access road program to facilitate production of strategic materials, constructing nearly 2,000 miles of roads, many of which are still used. About 14,500,000 acres were used for military training bases and testing grounds. Like other conservation agencies, the Grazing Service was handicapped by staff reductions and additional responsibilities.

While the Taylor Grazing Act was designed to be a comprehensive charter, three factors limited its effectiveness. Despite some comprehensive language and specific provision for classifying public lands before their transfer, the Act was perceived as a rancher's public land law, not as a charter for multiple use management. The Grazing Service was seen as a single-purpose agency serving a single constituency, the western livestock industry. Another impediment to true multiple use management of the public domain was a deeply ingrained public and Congressional attitude that all public land management was temporary until the lands were transferred to private ownership or assigned to special uses. Finally, the Act lacked explicit policy directives and specific management guidelines, primarily due to Congressional ambiguity, contradictions in the Act, and lack of rangeland data.

The Second Decade (1944-1954)

Grazing administration continued to suffer. Manpower shortages worsened. Philosophical differences between the houses of Congress about the Grazing Service and grazing fees resulted in appropriations for range administration being halved in 1945.

In 1946, the Grazing Service was consolidated with the General Land Office to form the Bureau of Land Management (BLM). BLM was assigned management responsibilities for "the major portions of the multiple-use, Federally

owned lands now held by the Department of the Interior." It was clear that BLM was to be a multiple-use Federal land managing agency.

The Grazing Service and BLM relied upon grazing fees to cover costs of the grazing program. Grazing fees were initially established at five cents per animal unit month, but the fee soon proved too small to cover costs. In 1947, fees were raised to six cents, with an additional two-cent fee levied for range improvements.

Increased recognition of the inadequacy of range restoration programs resulted in appropriations being raised in 1951 to provide additional manpower. Unfortunately, solutions to old problems of over-obligation of the range and uncontrolled trespass had been delayed. As they became operational, water developments, range seeding, protective fencing, erosion control, and similar projects proved beneficial to the range and dependent industries.

Seeding by hand in the early days of rebuilding the Federal Range.

Diverse interests in grazing lands and the complex land ownership pattern in the western states prompted cooperation among state, county, private, and Federal agencies. In 1949, state advisory boards were formed. Every effort was made to determine proper livestock numbers, seasonal adjustments, management methods, and needed improvements to benefit all concerned.

The Third Decade (1954-1964)

By 1960, the downward trend in range condition had been stopped on more than four-fifths of the lands that were deteriorating at the time the Taylor Grazing Act was passed. However, that left 20% of the public range still deteriorating.

Additional cooperation among public land users was seen as one management scheme to improve the rangelands. In 1962, the National Advisory Council was enlarged to include representation from such important interests as forestry, minerals, outdoor recreation, urban and surburban development, and local governments, as well as livestock and wildlife.

Governmental concern over the adequacy of economic return from the Nation's resources led to increased grazing fees. A new formula adopted in 1958 varied the fees each year according to fluctuations in the average prices of beef and lamb. The 1959 fee was 22 cents an animal unit month.

The Fourth Decade (1964-1974)

Increasing interest in public land resources during the 1960s led to the Classification and Multiple Use Act of 1964, another articulation of the multiple use concept. This Act gave BLM temporary multiple use, sustained yield management authority, but the Act expired in 1970.

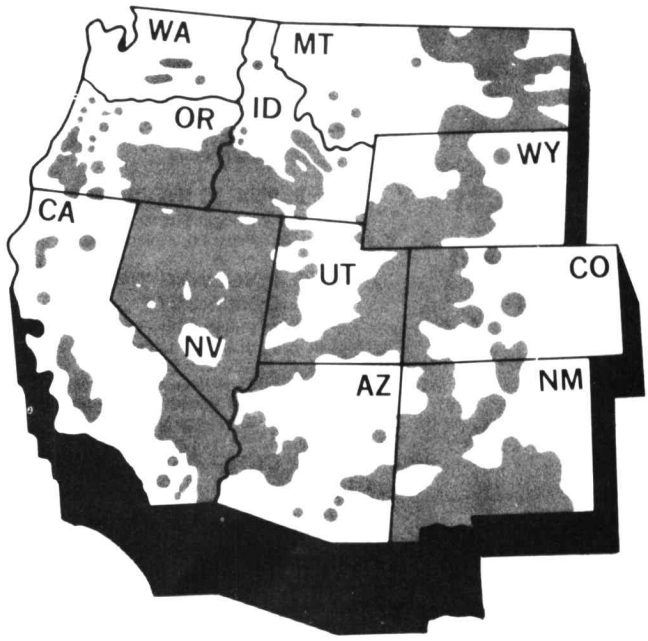
The Wild Free-Roaming Horse and Burro Act passed without a single dissenting vote in either House of Congress in 1971. This Act established a clear national policy that these feral animals would also have a permanent place on the public rangelands and that their forage requirements must be acknowledged.

By 1974, roughly 135 million of the 170 million acres of rangeland managed by BLM were still in only fair or poor condition, and vegetation production was far below potential. Conflicts concerning forage availability increased and focused attention on important rangeland values, livestock operations, and the ranch economics of the west.

In 1974, federal courts declared that BLM had violated the National Environmental Policy Act by failing to prepare environmental statements for livestock grazing programs. BLM was required to prepare 144 individual environmental statements by 1988, covering 170 million acres grazed by domestic livestock.

The Last Decade (1974-1984)

In 1976, Congress passed the Federal Land Policy and Management Act (FLPMA), requiring that the Federal government protect and manage the public lands for a wide range of



The public lands in the western United States.

benefits under the principles of multiple use and sustained yield. FLPMA provided for management characterized by comprehensive planning and full public participation. FLPMA also settled the lingering question regarding the millions of acres of public land. It established their retention in Federal

ownership unless disposal of a particular parcel was determined, through land use planning, to be in the national interest.

FLPMA establishes the balance in the concept of multiple use. The Act states that the public lands will be managed in a manner:

- that will protect the quality of scientific, scenic, historical, ecological, environmental, air and atmospheric, water resources, and archeological values; that, where appropriate, will preserve and protect certain public lands in their natural condition; that will provide food and habitat for fish and wildlife and domestic animals; and that will provide for outdoor recreation and human occupancy and use; and
- which recognizes the Nation's need for domestic sources of minerals, food, timber, and fiber from the public lands.

Accordingly, BLM's responsibility is to increase the production of the rangelands by efficiently managing the basic resources and authorizing uses of the lands in keeping with sound resource management principles.

In the Public Rangelands Improvement Act of 1978 (PRIA), Congress found, after nearly a half century of uneven Federal involvement in managing rangeland use, that:

- rangelands were still producing below their potential;
- rangelands would remain in unsatisfactory condition, or decline even further, under present levels and funding of management; and that
- the unsatisfactory condition of the public rangelands presents a high risk for soil loss, siltation, desertification, water loss, loss of valuable wildlife and fish habitat, loss of forage for livestock and other grazing animals, degradation of water quality, flood danger, and threats to local economies.

To reverse this trend, BLM's approach involves all interest groups. Coordinated Resource Management and Planning (CRMP), the Experimental Stewardship Program (ESP), and the coordination process in Allotment Management Plan (AMP) development are specific elements of BLM's coordinated management philosophy.

The broad legislative basis for CRMP dates from the Organic Act of 1897 to the PRIA of 1978. Under a Memorandum of Understanding, BLM, Forest Service, Soil Conservation Service, and Extension Service "cooperate to the fullest degree possible in fostering CRMP . . . and will seek to cooperate with all owners or managers of land and resources within each specified area . . ."

The Rangelands Improvement Act also directed the Secretaries of Interior and Agriculture to develop and implement an experimental stewardship program to provide cooperation among all rangeland users, ensure orderly implementation of completed resource management plans, identify needed modifications in existing plans, and allow for innovative methods to increase rangeland productivity. Incentives and rewards for grazing permittees would be an end result of improved range conditions and cooperative management. Results of the program will be reported to Congress by December 31, 1985. Experimental programs now in operation have been favorably endorsed by the National Governor's Association.

The coordinated process in allotment management plan development is based on the Rangelands Improvement Act which says that "If the Secretary concerned elects to develop an allotment management plan for a given area, he shall do so in careful and considered consultation, cooperation, and coordination with the lessees, permittees, and landowners involved, the district grazing advisory boards . . . and any State or States having lands within the area to be covered by such allotment management plan." This emphasizes a coordinated approach specific to development of AMPs.

The Rangelands Improvement Act also adopted a new grazing fee formula which adjusts a $1.23 base forage value by the percent change in charges for grazing on private grazing lands together with annual fluctuations in beef production costs and beef prices. Congress' intent was to implement a formula based, in part, on a rancher's ability to pay, to help protect ranchers dependent on public land use from being forced out of business by the combined pressures of high costs of production and low beef prices. The fee reached a high of $2.36 in 1980 and is currently $1.37. BLM and Forest Service have also initiated a grazing fee review and evaluation. Their tasks are to: (1) review the PRIA formula; (2) refine information on the value of public grazing lands; (3) evaluate other fee options; and (4) submit a report to Congress in 1985 that includes the Secretaries' recommendation for a fee schedule.

The Future

BLM's objectives for rangeland management are shaped by Administration policy, legislation, and rangeland user needs. BLM also considers technical data on rangeland condition, trend, and economic analysis concerning uses of the public rangelands.

Within this context, BLM is pursuing the following policy in developing and implementing a program for managing livestock grazing on the public rangelands. To fulfill its legislative, judicial, and executive obligations, BLM will:

1. Prepare grazing environmental impact statements for all public lands where grazing is a major Federal action significantly affecting the quality of the human environment.
2. Categorize rangelands by resource characteristics as part of BLM's planning/EIS process (which includes consultation with involved parties) to help propose appropriate management actions, including land-use and resource allocations.
3. Use rangeland categorization to help establish priorities for investments to achieve cost-effective improvement of rangeland condition and production. Efforts would be concentrated where grazing management action is most needed to improve the basic resources or resolve serious resource use conflicts.
4. Develop, update, and maintain an inventory of range conditions and trends for all public rangelands. Sufficient inventory data will be gathered to serve the requirements of multiple-use planning and provide a baseline for monitoring.
5 Determine when livestock use adjustments are needed to bring grazing use into line with estimated livestock graz-

ing capacity, and implement the adjustments by timely decisions. Adjustments will be scheduled in conjunction with other management actions, which may include inventory and/or monitoring studies, grazing systems, range improvements, and adjustments of other consumptive uses, as appropriate. Normally, such adjustments will be phased in over a period of time sufficient to permit monitoring.

6. Construct range improvements in consideration of (1) cost-effectiveness and (2) multiple-use. Private investment in range improvement will be encouraged accordingly.

7. Monitor the rangeland resources and livestock use to determine if the grazing management actions and/or practices are achieving objectives established for an area through the land-use planning/EIS/decision process. Information obtained through monitoring studies will be used to supplement inventory data; establish grazing patterns; evaluate trends; and identify, in the short-term, the need for adjustments in management actions and/or grazing use levels. Trend data will provide a long-term evaluation of management actions.

8. Supervise livestock grazing to determine if grazing use is as authorized, and take appropriate action against unauthorized use.

9. Consult with permittees, lessees, other rangeland users, landowners, state and Federal agencies, district grazing advisory boards, district multiple-use advisory councils, and other interested parties in developing and implementing land-use and grazing management decisions. Communication between BLM and affected parties for the purposes of deliberation, interchange of opinions, and potential resolution of differences or disputes is a continual process. It recognizes the knowledge and experience of those involved or interested in rangeland management, but does not negate BLM's ultimate responsibility for proper management and use of the public rangelands.

The preceding policy has been incorporated into BLM's rangeland management program through a selective management approach, a land categorization process designed to help BLM assign management priorities among allotments within a planning area. Selective management gives managers flexibility to consider local resource conditions, rangeland uses, and the management capabilities of district staffs when developing and implementing a grazing management program.

To facilitate the selective management approach, BLM groups allotments according to their potential. This potential is determined through analyzing an allotment's range condition, resource potential, presence of resource use conflicts or controversy, opportunity for positive economic return, present management situation, and other criteria as appropriate. Objectives for the three categories are to: (1) *maintain* current satisfactory condition, (2) *improve* current unsatisfactory condition; or to (3) manage *custodially,* while protecting existing resource values.

Robert Burford, Director of the Bureau of Land Management, has also stated that "BLM is going to encourage investment by the private sector—the range user. Ranchers holding grazing leases on public lands administered by the BLM will be required to bear the cost of maintaining improvements of their allotments . . . Operators would be allowed to perform the maintenance work themselves; to contract with others to do the work; or, to reimburse BLM for the cost of maintenance."

The Nation's public rangelands today are being called upon to play a central role in our future. As we struggle to meet growing demands for energy, food and fiber, timber, water, recreation, and other needs, the rich potential of the public rangelands is gaining long overdue attention.

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Dependency on Federal Grazing in Eastern Oregon

Thomas E. Bedell

The western states often are termed public land states since 29–87% of the land is owned and managed by the federal government. The majority of this land is rangeland, both nonforested and forested. The U.S. Forest Service, charged with managing the National Forests, and the Bureau of Land Management, who manage what was known prior to the 1934 Taylor Grazing Act as the Public Domain, have historically allowed local livestock operators to graze public lands through a system of permits. Grazing of public lands predated creation of managed federal ownership and set the precedent for historical dependency of grazing upon federal lands for at least part of the yearly forage needs.

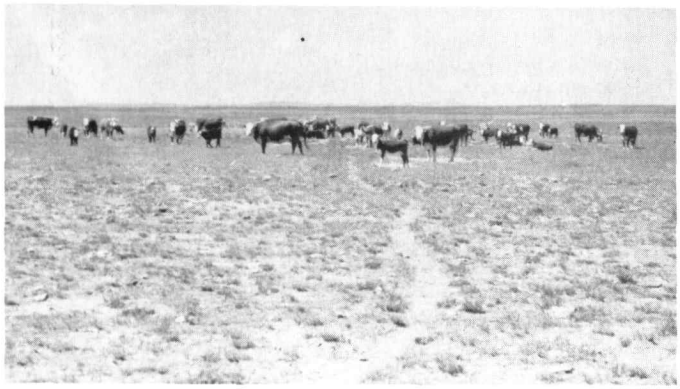

Fig. 1. *Seeded crested wheatgrass on rangeland in the BLM Vale District near Jordan Valley, Oregon, provides an important source of spring forage.*

In many places in the West beef cattle and sheep may be found grazing on some public rangelands at any season of the year. However, traditional usages suggest dependency upon BLM lands for early spring to early summer forage and upon the National Forests for summer-early fall forage (Fig. 1 and 2). The concept has been to complement forage produced and provided by privately owned range and haylands.

Because dependency implies a weak position if a change in the public rangeland forage supply were to occur, some improvement in the knowledge base regarding the idea of dependency and dependent livestock operators is recognized as important. Both the Forest Service and Bureau of Land Management have compiled considerable information relative to their respective lands and resources. However, in Oregon, there is virtually no information on facts such as, how much forage is provided from various public and private sources. This discussion summarizes survey results intended to document forage allocation.

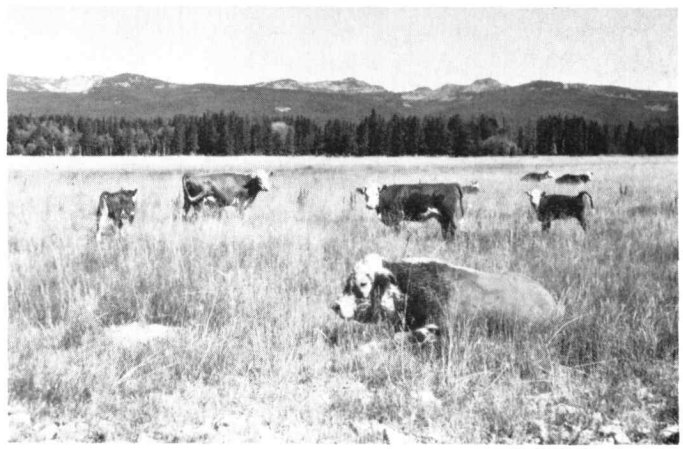

Fig. 2. *The Malheur National Forest in Oregon provides excellent forage during summer for these Grant County cattle in Logan Valley.*

Objectives

Most of the publicly owned rangelands in Oregon occur east of the Cascade Mountain range. Approximately 70% of the beef cattle and calves in Oregon are raised there. Because so little was known about the federal range-dependent cattle industry, a study of it was requested and supported by the Oregon Cattlemen's Association, U.S. Forest Service, and Bureau of Land Management. Personnel from Oregon State University's Departments of Rangeland Resources and Agriculture and Resource Economics conducted a study in 1980 and 1981 intended to describe characteristics of the dependent beef industry, including a number of economic parameters.

Due to the limitations in time and funding, a representative area composed of 5 eastern Oregon counties was surveyed. A questionnaire was developed and interviews made of

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ranchers from the selected 5 county area which contains approximately 36% of all eastern Oregon land area and 40% of all federal land in eastern Oregon. Cattle producers were selected for the survey on a county by county basis from lists provided by the Forest Service, BLM, and Oregon State University extension agents. Each operator was identified as accurately as possible as to the number of brood cows. The total sample was then stratified by herd size groups in order to aid in the statistical evaluations and determine the relationship between dependency and size of operations. All responses were kept confidential. Both economic and non-economic data were collected, but to date, only the physical operation characteristics have been summarized.

Results

The land/vegetation types and the patterns of federal ownership differ somewhat in the 5 counties sampled. Some differences in results were, therefore, expected. Many other statistics were generated including those relating to economic costs and income. Of primary importance to the livestock industry, local government, those in resource education, and perhaps most importantly the land managing agencies, was the question of the extent of federal land forage contributions to physical and economic well being within the community.

Total land area in the counties surveyed was over 15 million acres of which 9.7 million acres or 64% is federally owned. In the 5 counties, 592 ranches had federal grazing permits; this was an estimated 55–60% of all ranches. However, based upon estimated forage from all sources, from 69–77% of the total range forage available to all cattle ranches was consumed by cattle from ranches dependent upon federal grazing. Counties which contained large federal land holdings tended to support larger ranch operations. In Harney County, which contains 6.5 million acres and is 62% BLM and 8% Forest Service owned, 14% of the ranches had over 750 brood cows. In other counties, only 6–9% of the ranches exceeded 750 brood cows. Harney County had 36% of its ranches classified as larger than 450 cows. Other counties had only 15–17% of their ranches in that category. Conversely, 49–63% of the other county operations contained fewer than 200 brood cows. The ranches containing over 750 cows sold over 44% of all the yearlings and 41% of all cull cows and bulls, but only 18% of all weaned calves marketed. Ranches of smaller size tended to sell relatively more weaned calves than yearlings, perhaps because they may have less flexibility of operation.

Information was collected on the contributions of all forage sources including hay as related to herd size. Naturally operations with larger herds used proportionally more total forage because they ran proportionately more cattle. As an example, in Baker County, which has 33% Forest Service, 15% BLM, and 50% deeded land, some 50% of the ranches have fewer than 200 cows. However, these ranches have only 17% of the cows in the county. Only 6% of the ranches were in the greater than 750-cow category but they ran 29% of the total livestock in Baker County. In Grant County, which is predominantly controlled by the U.S. Forest Service, some 63% of the ranches are in the less than 200-cow category, but contribute only 24% of the total animals. In the Crook-Deschutes County area, which is 36% Forest Service and 24% BLM, data showed that 9% of the ranches were in the over 750-cow size class and produced 53% of the cows.

Were there differences between herd sizes regarding sources of forage contributing to their base? Forage source data were analyzed statistically to determine whether there was any difference due to herd size in the contribution of BLM and Forest Service forage to the total. Results within any given county showed no differences, but the amount of statistical variation was high. The variation among counties was even higher. Conclusions were that no differences occurred between BLM and Forest Service forage sources as affected by size of operation.

What does the forage use picture appear like? Hay fed during winter constituted from 29–36% of the total year round forage supply when all counties were compared. There was some tendency for the small-size herds to rely more on hay in winter than did the larger operations, probably reflecting an inherent flexibility in the larger operations. Crop aftermath provided 9–15% of the year-round supplies but this was primarily in October–December. Irrigated pasture contributed 5–10% of the total, also. Subtracting out the contributions of hay, irrigated pasture, and crop aftermath left range forage to supply anywhere from 43–51% of the

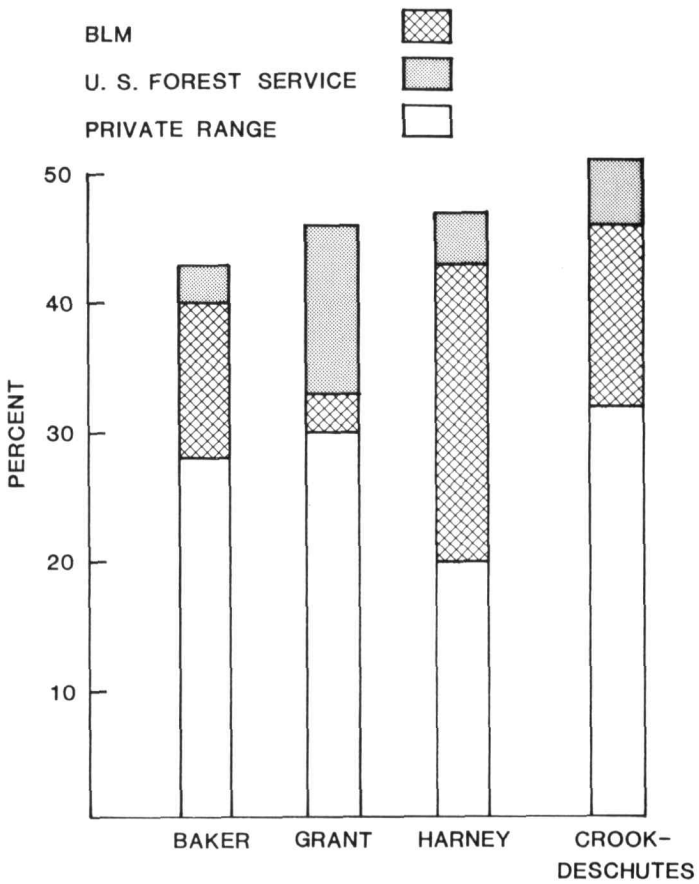


Fig. 3. *Percent of total forage provided by private, BLM, and National Forest Range.*

total. Large differences occurred among counties (Fig. 3). For example, BLM contributed 23% of all Harney County forage, 14% of the Crook-Deschutes County sample area, but only 3% of that in Grant County. On the other hand, the National Forest forage supplied 13% of Grant County's total but only 3–5% in the other four counties. Private range, whether owned or rented, provided from 20% in Harney County to 32% of the forage in the Crook-Deschutes County area.

The real importance of forage from BLM and National Forests relates to the seasonality of its use and how it complements other sources of forage (Fig. 4). April, May, and June are critical feed months in eastern Oregon. On ranches holding BLM permits, access to grazing at these times of year can allow a larger herd to be carried in other months of the year. In Harney county, forage from BLM made up 50, 57, and 43% of all forage consumed in April, May, and June, 1980, respectively. As much as 74% of the forage was from BLM in May for the 100–200-cow herd size category. Although National Forest acreage is not large in Harney County, an average of 15% of the total forage came from that source in June and July. When placed on a range forage basis (excluding hay, aftermath, and irrigated pasture), BLM provided 44% of all range forage consumed in Harney County, the largest single forage source category.

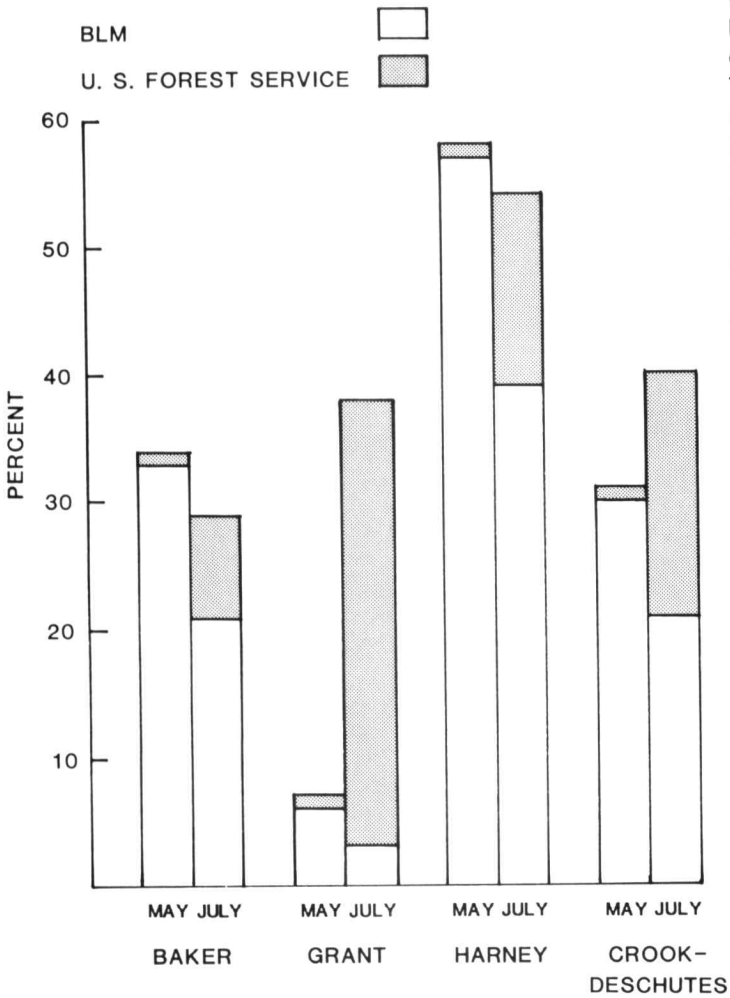


Fig. 4. *Percent dependency of ranches on BLM and National Forest Range forage in May and July.*

Grant County, which borders Harney County to the north contains relatively little BLM land but greatly more National Forest land. About 60% of Grant County is federally owned. As may be expected, the National Forest provided a very important forage source for the June through September period, 31–36% of any of those months' totals. Conversely, BLM only provided 4–6% of the April to June forage. Deeded range in Grant County supplied 74% of the May total and leased private range and grazing associations (private) provided another 9%. On a range forage basis the National Forest provided 27% of all range forage, BLM 6%, and deeded range 67% to Grant County dependent ranches. Thus, rather large contrasts do occur due to the composition of ownerships and predominant vegetation types. Interestingly, county lines sometimes occur such that a county is dominated by one or another federal ownership class. This was apparent for Grant County with a predominance of National Forest land and Harney County with most federal lands managed by BLM.

Examination of hay feeding and purchasing practices showed a 130–140 day feeding period with most of the hay being raised on the property. In two counties with higher amounts of BLM land, an average of 91% is produced on the ranch where it is used. In a high Forest Service county, Grant, 95% was home grown. Carryover hay supplies varied from 8–20% of the total but this may be more indicative of hay production in a previous year than of a desired or planned amount of carryover.

Dependent ranchers were asked which options they felt were most viable if they were to lose some of their federal grazing privileges. This information is very subjective. Operators tended to view options differently in the various counties. For examples, in Harney County where BLM contributed 45% of the range forage and private range only 39%, there was a strong tendency, especially with the larger herd size operators to consider herd reductions over any other option. In the Crook-Deschutes County sample the BLM provided 27% as compared to private provision of 63% of range forage. These operators tended to feel that improving their deeded range would be their first choice if faced with reductions in federal permits. In Grant County where 95% of hay was home grown, many operators appearently feel thay could divert some hay land to grazing as a first option. Perhaps they feel they could make up the difference in hay yields by using better hay production practices. Since no overall conclusion between the counties can be made, the value of definitive county surveys is further illustrated.

Conclusions

Forage estimates from surveys conducted in five eastern and central Oregon counties show some 70–75% of the total AUM's of forage used were by cattle from ranches with federal grazing permits. The single most important source of forage was hay fed during the winter period. Hay costs,

regardless of whether raised or purchased, commonly exceed costs of grazing. Thus, any reduction of the 29–36% dependency on winter hay could have net positive benefits if animal performance is not hampered. Larger herd sizes on the average were feeding less hay which probably reflects greater flexibility in their management of the resource base.

Combining both Forest Service and BLM forage data shows that from 34–53% of the range forage consumed is provided by these two land ownerships. When placed on a seasonal basis, the contribution is even more significant. Federal land management agencies need to recognize that the forage produced under their management is extremely important, especially when viewed from the perspective which shows the importance of critical feed periods. However, until actual AUM amounts are known from the various land ownerships represented within a county, there is no good way to estimate what effects any change in permitted grazing may have. When seasonal dependence is known by forage source, both ranchers and management agency personnel can cooperatively evaluate impacts brought about by any given management change. Thus, proposed forage reallocations could be suggested in the light of more factual information and should result in greater cooperation between the public and private sectors. ●

Conservation on Hopi Rangelands

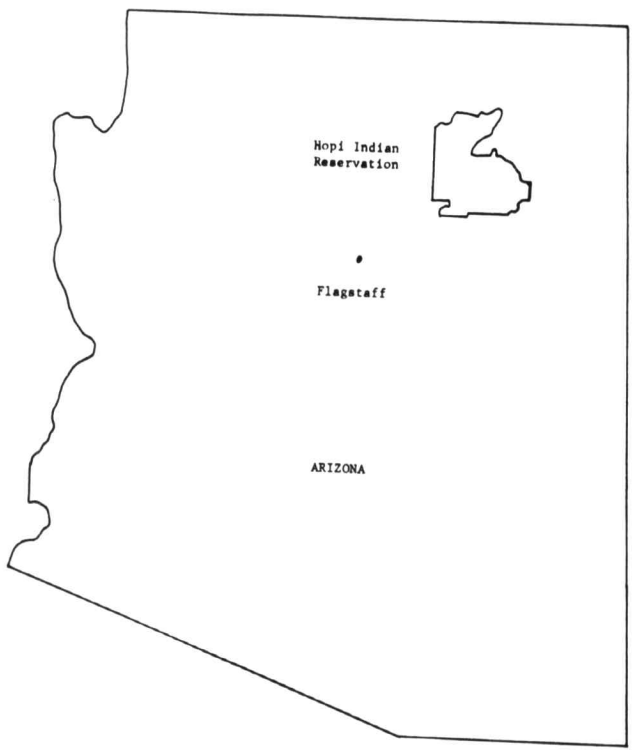
Harmon S. Hodgkinson

The effects of soil and water conservation on range resources often are not realized until years later. The land user or manager knows that conservation practices applied and maintained will pay in the long run. He also realizes that as technology advances, systems need to be improved.

A Soil Conservation Service (SCS) soil-vegetation survey team was assigned to the Hopi Indian Reservation in northeastern Arizona in 1980 to provide the Bureau of Indian Affairs (BIA) and the Hopi Tribe with a cooperative soil survey and a range site and condition survey to be used in the planning, application, and use of Hopi lands.

The Hopi Tribe in 1882 was granted 2,600,000 acres, but presently is living on about 650,000 acres. The Hopi have lived in this area for nearly 1,000 years. Old Oraibi, built at least by 1150, is probably the oldest continuously occupied city in the United States today. The Hopi people dryland farm some areas close to the villages, raising corn, beans, squash, melons, and some fruit trees. Cattle and some sheep are the livestock commonly grazing the rangelands.

The Hopi farmers and ranchers over the years have received assistance in applying conservation practices from the BIA at Keams Canyon. As a member of the SCS survey team, I have seen many conservation and range management practices on the land. Some of the practices were installed recently. Others were installed 40 years ago. BIA photo files document the past, and new photos taken in 1982 show how these conservation practices have improved and protected Hopi soil, water and range resources. The areas are located in a 6 to 10-inch precipitation zone at elevations of 4,800 to 6,000 feet.



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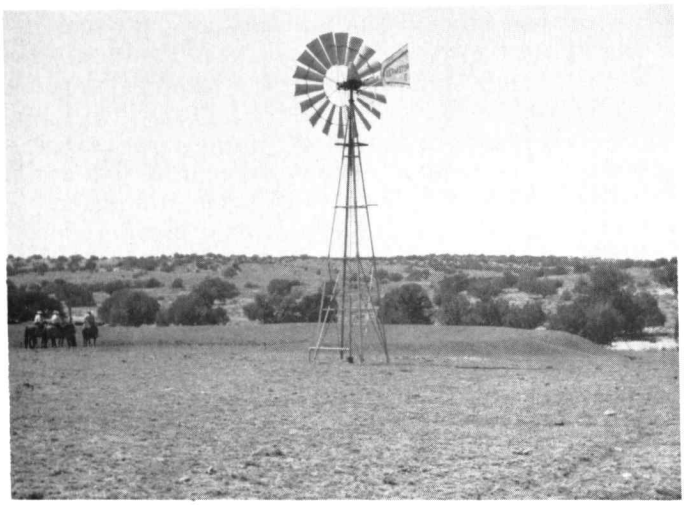
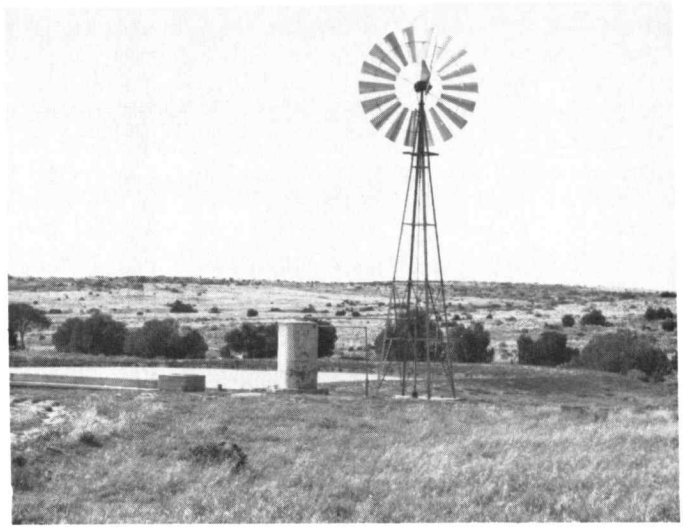
The author thanks the BIA at Keams Canyon for access to their photo files and Oscar Lalo, who assisted in this project.

Editor's Note: The Soil Conservation Service worked on the Hopi Indian Reservation from 1935 until 1940, when a Government Departmental major reorganization took place and moved the SCS from all Indian lands.



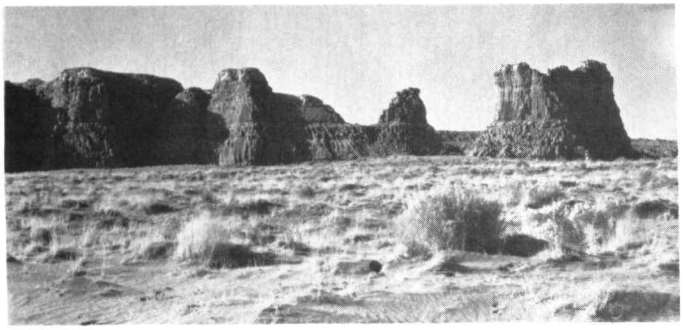
BIA Photo

Windmill - 1957. *Water is essential for the health of livestock and aids in obtaining proper distribution of grazing animals. Water was pumped into an earth pond after the establishment of this windmill. Grasses in the foreground are primarily galleta and blue grama. The species are grazed closely, as is typical around watering facilities. Bare ground is minimal.*



SCS Photo

Windmill - 1982, 25 years later. *Over the years it became important to ensure having water for any grazing season of the year. A storage tank and a float-equipped watering trough were added to provide flexibility to the system. Water pumped by the windmill is first stored in the tanks, then distributed into the watering trough. Excess from the tank goes into the earth pond. The vigor of galleta and blue grama has improved. Cheatgrass is also present in minor amounts. Bare ground is still minimal.*



SCS Photo

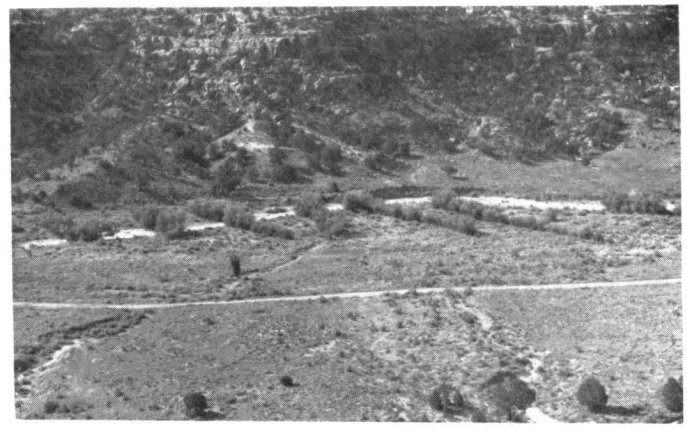
Garces Mesa - 1936. *Milton S. Snow, intrigued by the Navajo Sandstone formation, has documented in the foreground the Sandy Upland Range Site. Major species include galleta, sandhill muhly, Indian ricegrass, and an occasional fourwing saltbush. This site is an annual precipitation zone of 6-8 inches. A sparse plant community is produced, leaving bare sandy soil between plants. Natural wind erosion occurs on the site, especially in the spring when winds are strong.*

SCS Photo

Garces Mesa - 1982, 46 years later. *The plant species have changed some on the Sandy Upland Range Site. Sandhill muhly now dominates. Indian ricegrass, galleta and sand sagebrush are also present. The vigor of the plants is good because of proper grazing, and there is less bare soil than in 1936. This site is very fragile and must be properly grazed in a planned system to maintain or improve the resource.*

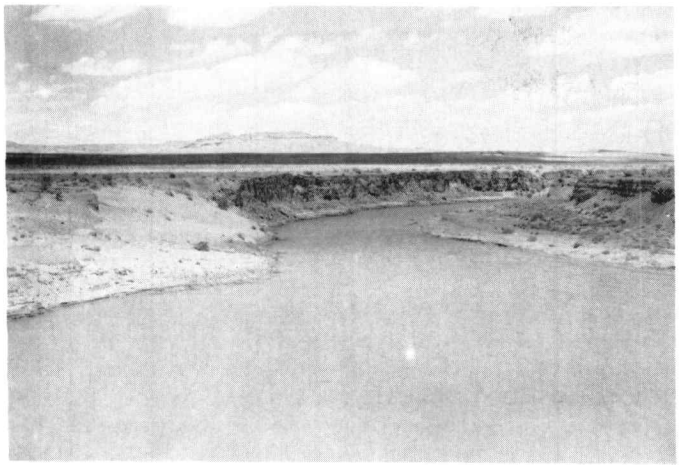
BIA Photo

Echo Wash - 1962. *Summer thunderstorms are intense and have the potential to severely erode intermittent sandy washes. In the early 1960's, Russian-olive trees were planted across Echo Wash to slow down the runoff from these storms. The trees are 2-3 feet tall.*



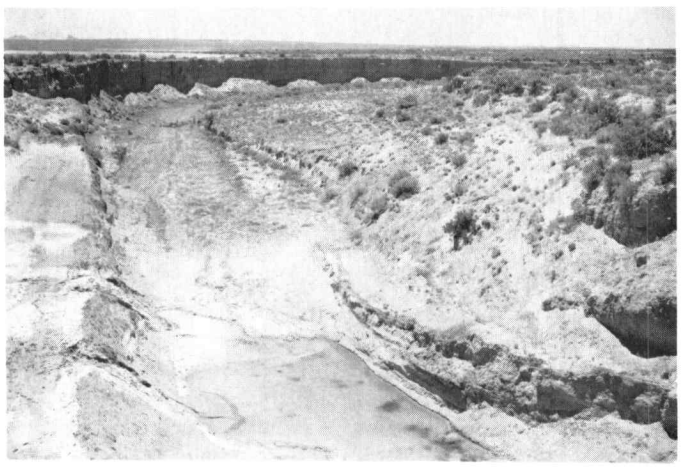
SCS Photo

Echo Wash - 1982, 20 years later. *The Russian-olive trees are now more than 20 feet tall and have helped control erosion within the wash. Wildlife habitat and the aesthetics of the wash have been greatly enhanced. Adjacent Utah junipers have increased in size, and other vegetation has also improved.*



BIA Photo

Polacca Wash - 1945. *Water backs upstream on Polacca Wash after a thunderstorm. A newly constructed earth dam was built across the wash to help control erosion. The soils along Polacca Wash are highly erosive. Sidebank cutting and sloughing are common from the runoff of severe summer thunderstorms.*

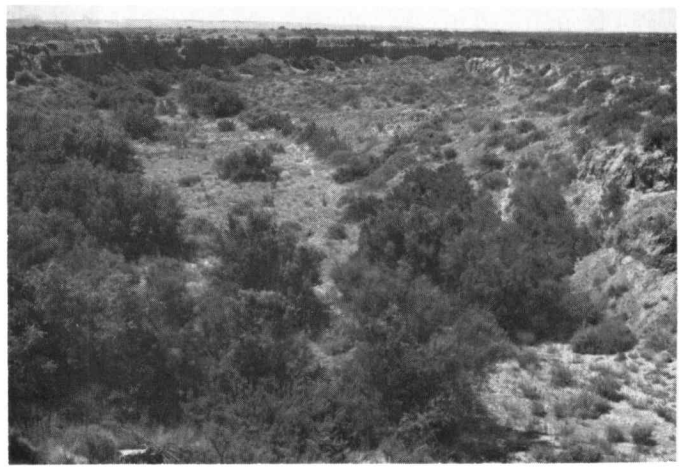


BIA Photo

Polacca Wash - 1945. *The channel downstream from the newly constructed earth dam built across Polacca Wash to control erosion. Summer thunderstorms not only cut the channel down, but widened it by sidebank cutting. The channel in places is more than 100 feet deep and 400 feet wide.*

SCS Photo

Polacca Wash - 1982, 37 years later. *The wash channel has almost completely silted in and is covered by vegetation. Now, storm runoff is slowed by a series of dikes and diversions that spread the water over the channel area. The vegetation is dominated by western wheatgrass, bottlebrush squirreltail, greasewood, and saltcedar. A grazing resource and wildlife habitat have resulted from the project.*



SCS Photo

Polacca Wash - 1982, 37 years later. *The wash has been healed by vegetation of saltcedar, fourwing saltbush, greasewood, Indian ricegrass, galleta, and bottlebrush squirreltail. Through the conservation effort of erosion control, a grazing resource and wildlife habitat has been improved.*

Historical and Political Perspectives on Selling the Public Domain

Alan R. Collins and Edward B. Bradley

The history of public land policies in the United States has been largely one of disposal to private ownership. Whether by sale or grant, public land has been disposed of to homesteaders, railroads, military veterans, miners, and various other private individuals. Starting in the late 1800's and early 1900's with National Park and Forest Reserve withdrawals, public land policies moved away from disposal to federal management of public land resources. This movement away from disposal was essentially completed with the passage of the Taylor Grazing Act and establishment of the Grazing Service to manage livestock grazing on the previously unappropriated, unreserved public lands. Permanent management authority of these public land resources was given to the Bureau of Land Management (BLM) when the Federal Land Policy and Management Act (FLPMA) was passed in 1976.

Even with the definite movement in federal policies away from public land disposal, proposals continue to be put forth to dispose of BLM lands by sale to private ownership. Two major proposals to sell the majority of BLM managed lands in the 13 western states, henceforth called the public domain, have been presented since enactment of the Taylor Grazing Act in 1934. The first proposal occurred in 1946-47 and a recent one was put forth in 1981-82. This recent proposal has now been transformed into the Asset Management Program with far less land sales envisioned than the original proposal.

The objective of this article is to review each proposal and the historical context in which it developed. No attempt will be made to argue the merits of either proposal.

1946-47 Proposal

The main proponents of the first proposed sale were the American National Livestock Association and the National Wool Growers Association. The proposal originated from meetings in late 1946 of a Joint Livestock Committee on Public Lands formed from both Associations. Sale provisions adopted in resolutions at both associations' national meetings in early 1947 were (American Cattle Producer 1947):

1) Give the right to purchase BLM grazing lands to the lessee, permittee, or licensee of alloted land under provisions of the Taylor Grazing Act.
2) Land value would be based upon carrying capacity of the land and price per acre established by the number of animal units that can be carried per section per year multiplied by 7¢.
3) Sale terms were set at 10% of purchase price as a downpayment at purchase application with the balance to be payable at up to 30 years at 1.5% interest.
4) Approximately 90% of the funds from selling the public domain were to be returned to the state in which said lands were located for disposal by state legislatures.
5) Mineral rights were to be retained by the federal government with rights of ingress and egress for prospecting or mining provided patents of disposed lands contain provisions protecting surface rights against damage.

Under this proposal, the livestock operator was not obligated to purchase the public domain that he leased for grazing. A reasonable period of time was to be given the permittee to determine whether to purchase the land. It was the intent of the Joint Committee to allow about 15 years for the public domain to be transferred into private ownership after which unpurchased lands would be deeded to the states, if the states agreed to accept such lands.

Based upon a range of carrying capacities from 2 to 15 acres per animal unit month (AUM) of forage, prices per acre for the public domain under this proposal would have ranged from about $2 to $0.25 per acre. In 1982 dollars, these prices translate to between $8 and $1 per acre.

Though the national conventions approved the plan, state livestock and wool growers conventions passed resolutions in 1947 that were decidedly mixed. A minority of conventions approved resolutions for transfer of public domain to private ownership, but most western state conventions either opposed such a transfer or passed no resolutions concerning this issue. Active support for this proposal to sell the public domain faded quickly. Criticism of the proposal came from articles in popular magazines, conservationist leaders, and editorials in western newspapers. Proposal supporters believed that the Forest Service and BLM were behind this "flood of propaganda" against the proposal.

1981-82 Proposal

The recent proposals to sell the public domain (known as privatization) did not originate with public land users as in the 1946-47 proposal. Instead they came from within the federal government. Major sale proposals were put forth by Steve Hanke, an economist for the Council of Economic Advisors, and by Senator Paul Laxalt from Nevada.

Laxalt's proposal in early 1982 encompassed selling up to 100 million acres of BLM grazing, hard rock mining, and oil and gas lands; "the big ticket items" according to an aide to Senator Laxalt (Public Land News 1982a). No concrete price determination formula or sale method for these lands was

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publicly proposed by Laxalt. A more concrete proposal was presented by Hanke for the disposal of the surface rights to 155 million acres of public grazing lands managed by the BLM. He proposed (Manhattan Report on Economic Policy 1982):

1) Present permitees would be given the right to purchase BLM grazing permits on a first refusal basis.
2) The first refusal price would be set by capitalizing annual federal grazing fees (in 1982 dollars) averaged over the past five years.
3) The capitalization rate was to be a one percent real rate of interest.

By using the Gross National Product deflator to convert 1978-81 grazing fees to 1982 dollars and as a measure of inflation between 1978 and 1982, permit price would be about $25 per AUM under this formula. On a per acre basis, prices would range from approximately $12 to $2 for carrying capacities of 2 to 15 acres per AUM. At this price per AUM, less than $500 million would be raised by the sale of surface rights to BLM lands.

Support for privatization could best be described as cautious among leaders in the National Cattleman's Association and National Wool Growers Association. While supportive of the disposal concept, they urged more study and public debate before they were willing to fully establish a definite privatization policy. Proposals to dispose of the public domain were rejected outright by the Nevada Select Committee on Public Lands, which was instrumental in creating the recent Sagebrush Rebellion. They rejected not so much Hanke's proposal as the possibility of the lands being sold to the highest bidder. Dean Rhoades, one of the Nevada legislators, not only felt ranchers would be hard pressed to buy the lands at any price, but also felt Congress and the President could not be trusted "to hold the line for ranchers" (Public Land News 1982b).

The privatization plan has now evolved into the Reagan administration's Asset Management Program. This program had its beginnings in February of 1982 with the signing of Executive Order #12348 by President Reagan.

Executive Order #12348 initiated the program by: (1) requiring federal agencies to review their land holdings and report unnecessary or underutilized property that could be sold, and (2) establishing the Real Property Review Board to determine if new regulations and/or laws are required to facilitate disposal. The BLM has identified some 4.3 million acres whose surface rights could be sold in the lower 48 states (valued at only $2.5 billion) of which 2.7 million acres had already been identified for disposal in land use plans stipulated in FLPMA. The other 1.6 million acres have conflicts (i.e. mining claims) or land use plans that would have to be amended.

Since its inception, the Asset Management Program has been scaled down in terms of land to be sold. Preliminary estimates from the fiscal year 1983 budget put sales at 5% of the federal lands (about 35 million acres) to raise $17 billion dollars over a five-year period starting in fiscal year 1983. One billion dollars was to be raised in 1983 and starting in fiscal year 1984, $4 billion was to be raised annually for the next four years by federal property disposals with $2 billion annually coming from public land sales. The recent 1984 fiscal year budget by the Reagan administration, however, proposed sale of only $300 million worth of BLM land (250,000 acres) and a total of $1.4 billion to be raised by property disposals.

No significant amounts of BLM land have been disposed of in the Asset Management Program. Approximately 3,500 acres have been placed up for sale during the first half of fiscal year 1983. Any public land sales that do occur must be sold at least fair market value under current FLPMA regulations. But current law must be changed if the proceeds are to be used towards one of the program's stated objectives: reduction of the federal debt.

Historical and Political Perspectives

The similarities between the two proposals are that: both proposals offered the public domain for sale to livestock grazing users at minimal prices, neither proposal had full support among stockmen who were to purchase the land, and both proposals were preceded by unsuccessful attempts to transfer the public domain to western state governments.

At first glance the first two similarities might appear contradictory: if stockmen could obtain the public domain at minimal prices why would few support the proposals? In 1946-47, the main concern was over ability to pay tax bills once the public lands were purchased. Utah property taxes converted to an AUM basis for public land purchased at the proposed prices were shown to be greater than BLM grazing fees (Smith 1947). The California Cattleman's Association opposed mandatory purchase of Taylor grazing lands (though the proposal included voluntary purchase right) because they believed it would not be possible for permittees to pay taxes on such lands without jeopardizing the value of their own base properties, since this value was tied to the use of adjacent public lands. During the recent proposal, economic conditions for the livestock industry made firm profits and survival more important to stockmen than purchasing public lands in their ranch operation.

The third similarity is that both the unsuccessful public domain transfers and the proposals occurred in what could be termed anti-federal land management atmospheres. A Senate subcommittee led by Senator Pat McCarren of Nevada had just finished investigating the Grazing Service and had severely cut the agency's appropriations prior to the 1946-47 proposal. Senator McCarren was present at the first meeting of the Joint Livestock Committee in Salt Lake City, and his presence was said to guide the thoughts and actions of the conferees. Recently, the Sagebrush Rebellion had widespread support in the West and was initiated mainly in reaction to changes in BLM management policies. The rebellion preceded the election of President Reagan, who ran on a platform that included a reduction in federal land management regulations.

Lastly, each proposal was vehemently opposed by recreational users of the public domain and by groups that represent them. Arguments were essentially the same both times: the "land-grab" proposals would benefit a few while taking ownership and access away from the rest of society and lead to private mismanagement of land resources. The arguments

differed slightly in that envisioned erosion problems from overgrazing were stressed during the first proposal while public lands benefits other than economic returns (such as wilderness, wildlife, and aesthetics) were emphasized recently.

The main difference between the two proposals was not so much the mechanism of disposal as the policy justification provided by proponents. The first proposal in 1946-47 was viewed by stockmen as simply in furtherance of this country's long-established public land policy. They would point out that nearly all previous federal land legislation had the aim of disposal to private ownership and that the Taylor Grazing Act specifically stated in the opening clause the purpose of the law: "In order to promote the highest use of the public lands pending its final disposal." Thus, proponents regarded the Act as a stop-gap measure before final disposal and not as permanent management authority.

On continuing a disposal policy, the leaders of the two stockmen Associations badly misjudged public opinion and society's general beliefs on public land issues. The public domain was now part of "our" land in the minds of the general public along with National Forests and Parks. Disposal to private ownership was no longer the main objective for the public domain. Government management of public domain resources for society's benefit had become necessary in the public mind, in part, because of real and alleged mismanagement of private lands resulting in excess erosion (dust bowl memories).

The recent proposal to sell the public domain, originating from economist Hanke, was based primarily on increasing land use efficiency. Hanke's economic efficiency argument is accurate in its analysis of the situation, but lacks persuasiveness due to its insignificance on a national scale. Using Hanke's figures, management costs (including in lieu of tax payments) for federal grazing lands in 1981 were $33.6 million greater than receipts from grazing fees (Manhattan Report on Economic Policy 1982, p. 6). This cost does not include an opportunity cost incurred by holding the land resources. Within federal agricultural programs, $33.6 million is insignificant when compared to the nearly $4 billion spent on agriculture commodity price support programs in 1981. When compared to entitlement and defense expenditures, very little political priority can be given cost cutting measures of public domain disposal especially considering the emotionally charged opposition this issue generates from conservation groups.

Concluding Remarks

Numerous points were brought up in this article concerning the obstacles each proposal faced in the public policy-making process. Among them were: lack of support from livestock grazing permittees who were to obtain the right to purchase at minimal prices, strong opposition from recreational users and groups that represent them, insignificance on a national scale of costs to maintain present federal management of grazing lands, and widespread acceptance of public ownership as the best mechanism to manage these resources for society's benefit. Future proposals to dispose of the public domain will face these enormous obstacles unless society's attitudes toward public lands change dramatically.

While the BLM has the authority under FLPMA to sell over a couple million acres, resistance to this effort will be strong. Conservationist groups will oppose any public land disposal on the principle alone, grazing permittees for the most part cannot presently afford to pay fair market value for public grazing land, state and local governments prefer the Good Neighbor policy where the Department of Interior transfers public land to them at little or no cost, and even public land managers would prefer land exchanges to block up present holdings rather than land sales. Though there is plenty of resistance, the Asset Management program will remain as long as it has support from high levels in the present administration.

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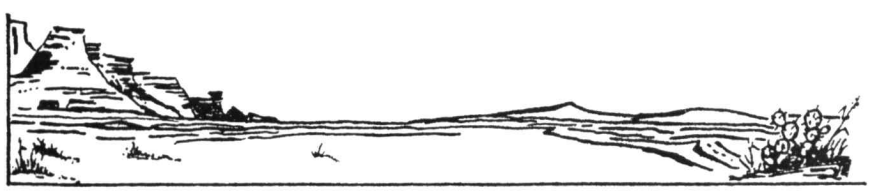
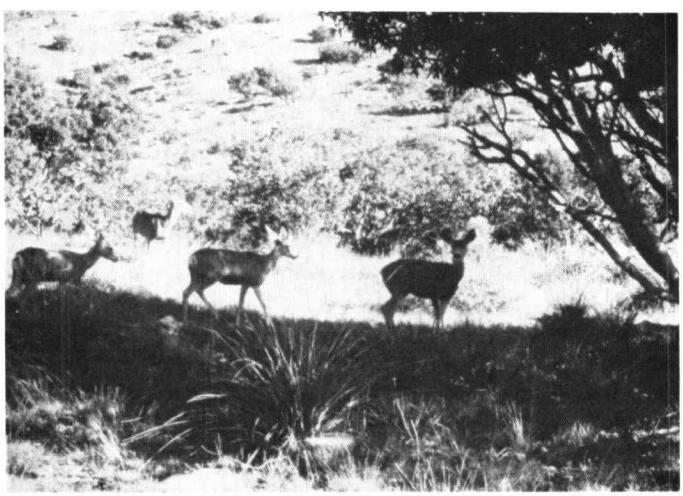


Romance Value of Range and Forest Land

C. Arden Pope III, H.L. Goodwin, and Don E. Albrecht

Editor's Note: This paper puts into words what many people feel about our public rangelands.

Approximately 84% of the total land area in the 11 contiguous Western States is range or forest land, 55% of which is federally owned. Associated with this land is the romance of wide open spaces, free-roving wildlife, solitude, and other real or perceived wonders. Agricultural economists, who often view themselves as scientific positivists, generally feel uncomfortable dealing with something as illusive as this romance—this sentimental, emotional attraction, attachment, or aura associated with vast tracts of relatively undisturbed range and forest land. Robison, however, stated that "the romance associated with range is far better known than the truth." To ignore it is to ignore one of the most important elements in the debate dealing with proper management of public lands in the West. Economists deal with management issues based largely on efficiency and economic rationality; yet, as Nelson pointed out, "it is the romance of the public lands which gives them their compelling interest, and leads even many economists to study them."



The romance associated with vast tracts of range and forest land influences the behavior of those who use the land for productive purposes.

The objective of this paper is to draw attention to the importance of the romance value of public range and forest land and to point out the need for interdisciplinary research to determine its importance with respect to the management of this land. Four basic components of the total value of public land in the West are identified and used to illustrate how the romance with this land affects its value.

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Components of Public Range and Forest Land

Four components of the total value of public range and forest land are identified as (1) productive use, (2) consumptive use, (3) vicarious use, and (4) existence. Productive use (1) is associated with the value of the land for use in livestock production, timber production, and other productive uses. Consumptive use (2) is associated with the value of the land for use in sightseeing, camping, hunting, and other such recreational uses. Vicarious use (3) considers the values generated from experiencing this land vicariously through photographs, books, outdoor magazines, etc.

Existence value (4) excludes any value associated with productive, consumptive, or vicarious use of the land, either current or anticipated future use. Existence values are altruistically motivated or at least partly generated through three types of altruism: interpersonal altruism, intergenerational altruism, and altruism toward the land resource itself. These types of altruism reflect desire that the land be available for others' use, desire that the land be available for future generations, and/or recognition of something inherently good or valuable about large, relatively undisturbed tracts of public range and forest land.

Effects of Romance on the Components of Value

The romance associated with vast tracts of publicly held range and forest land may not directly influence the productive nature of the land itself, but it does influence the behavior of those who might use the land for productive uses. It is becoming increasingly clear that there is also a consumptive or recreational motive involved in ranching that is affected by the romance that many have with range and forest land and ranching. For example, Martin pointed out that the market value of grazing leases on public range and forest land that is capitalized in the transfer price for the lease is much higher than can be explained by the value of the land for livestock production alone. He explains that there are "groups of people who know no other way of life and/or who romanticize the carefree independent life of the cowboy." He also explains that there are also many people who purchase ranches both as "a resource to be used for production purposes as well as a resource for personal consumption."

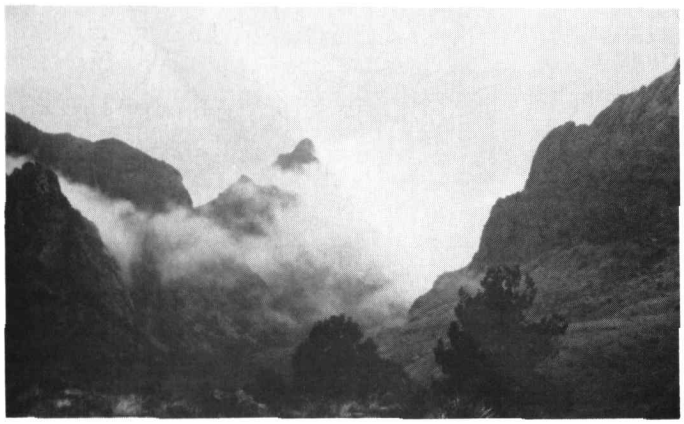
The romance associated with public land in the West obviously enhances its consumptive use and vicarious use values. As the U.S. population continues to grow, the demand for these uses is also expected to grow. Cordell et al. project that demand for primitive, semiprimitive, and roaded natural and rural areas will outstrip growth of the population in the years to come. Consumptive or recreational use is

multidimensional, involving the satisfaction of anticipation, participation, and reflection of outdoor experiences. Kelly suggests that four basic types of psychological experiences—environmental, social, developmental and health—are derived from the consumptive use of resource based activities.

Anticipation, participation, and reflection of public range and forest-based recreational experiences add value to these lands.

Such benefits are found irrespective of regional origin of the participant and are consistently high-valued. In addition they are usually resource-dependent, based on being in the environment or engaging in an activity requiring a special outdoor resource.

Scenic landscapes clearly make an important contribution to the consumptive value of publicly held range and forest land. This is also true with respect to the vicarious use value of this land. Much of the satisfaction gained from vicarious use of land through photographs and paintings can be attributed to physical and perceptual qualities. A study by



The fact that range and forest land exists, publicly owned and relatively undisturbed, may give a degree of national pride and unity and serve as a symbol of part of our national heritage.

Brown and Haas identified a high value associated with recollection of resource-based use experiences through sharing tales of conquering the wild, climbing, camping, fishing, and hunting with friends, family, and associates. This is often partially facilitated through the use of photographs. Not only does the land itself have vicarious use value, but there also is a vicarious use value associated with the production of livestock products on these lands. As Stoddard pointed out, "cattle and sheep are a part of the public image of the West. Cowboys and livestock are glamorously fabled in novels, movies, television, and ballads."

Of the four components of total value of public land in the West, romance most directly influences its existence value. This land has value to many who do not use it directly. In addition to their possible vicarious consumption of this land, they value knowing that it will exist for other generations and may provide habitat for various plant life and wildlife. The fact that this land exists, relatively undisturbed and publicly owned, may give a certain degree of pride, and national unity and identity. Like the Statue of Liberty, public range and forest land in the West is a symbol of part of our national heritage. A public rangeland committee assembled by the National Academy of Sciences stated:

> Public rangeland supplies only a small amount of the national demand for meat, but an extremely large amount of the national demand for myths of free-ranging rugged individualists . . . It is evident that public rangeland may be far better at producing the stuff of myth and national identity than economically prudent beef and mutton products. Yet, in the long run, the production and perpetuation of national myth may be one of the most valuable resources harvested from public rangeland (As quoted by Nelson).

Conclusions

Recently, debate on the future of public range and forest land has increased. Some argue that this land can best meet the needs of the American people while under federal and state ownership and management. Others maintain that this land can best meet its full potential if reverted to private ownership. This paper emphasizes that the romance—the sentimental, emotional attachment, or aura—associated with vast tracts of relatively undisturbed public land in the West is an important element in the debate over the proper use and management of this land. It is shown that this romance is the source of, or at least enhances, some components of the value of this land. Neither economists or range scientists have the necessary tools to deal adequately with this source of value. Future research and dialogue dealing with this issue in a useful informative way, linking the efforts and ideas of both social and biological scientists, will likely be of interest and benefit in dealing with public range and forest land management issues.

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Soulen Sheep Allotments: A Success Story

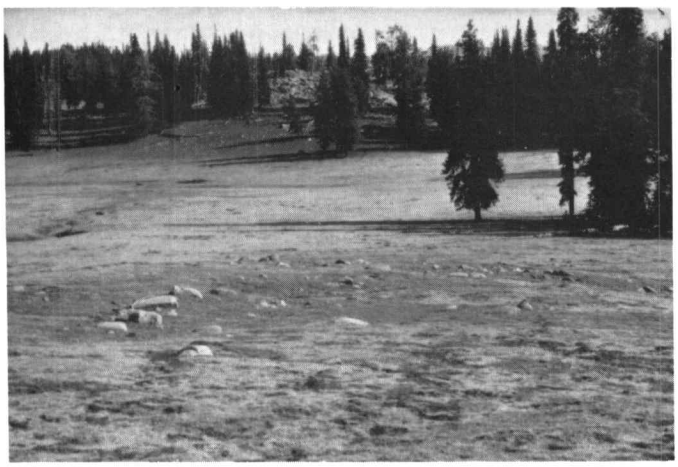
John F. Hooper

The Soulen Sheep allotments encompass a 115-thousand acre area of the Payette National Forest in upper Idaho. The Soulen Livestock Company has the permit for 10,000 ewes with lambs from 1 July to 15 October. In the early 1970's it became obvious that there was a great need to improve the condition of the allotments. There had been a tremendous decline in grazing capacity (to less than 50%) since use records were first kept in 1928. Over 5% of the area was classified as in a poor range condition and about 20% of the primary range area had an apparent downward productive trend. The decline in grazing capacity was attributed to a reduction in forage quantity and quality due to ingrowth of trees and tall brush in the absence of fire coupled with overstocking. The situation was aggravated with the closing of large areas (plantations) to allow trees to become established on cut areas following timber harvesting.

In 1973, a concerted effort was made by the Forest Service, Range Conservationist Robert C. Bryan, and the permittee, Phil Soulen, to obtain an agreement for improved management on the allotment. After much discussion and compromising, and allotment management and development plan was approved and signed by all parties in February, 1979.

Conditions Before the Plan

The allotments were heavily forested and grazing the area to a proper use standard was not easy. Access was limited in many areas, causing major declines in vegetative composition and soil resources along access corridors. Meadows over 10 acres in size made up less than 10% of the primary range. The dry meadows showed severe composition degradation exemplified by Hartley Meadows, which had changed from tufted hair grass to pull up muhley, and Bear Basin Meadow, which had become predominately tar weed, canadian thistle, and toadflax.

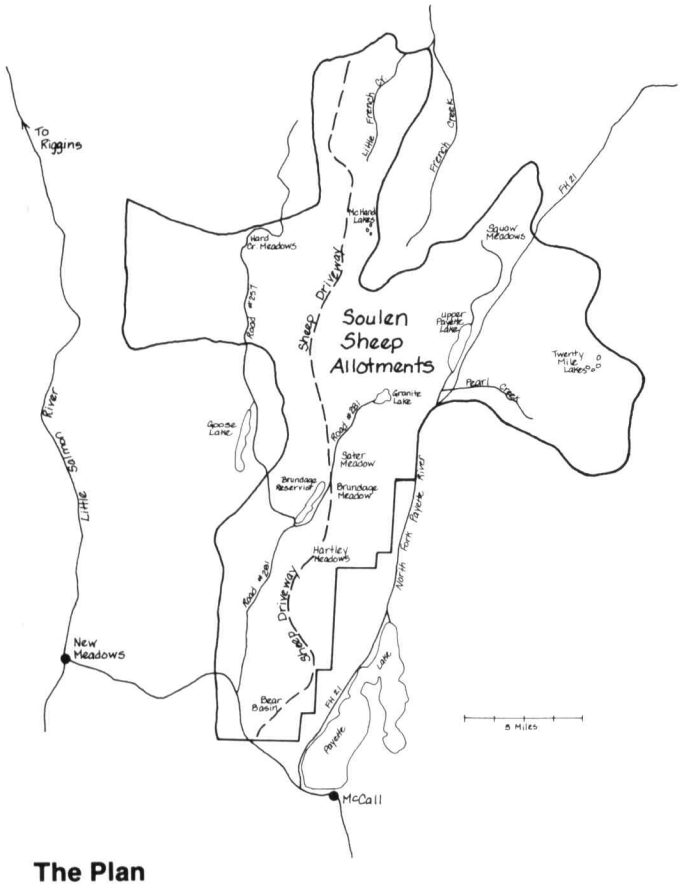


About 15% of the primary range area was at the higher elevations where the forage was dominated by forbs. Many of these areas showed severe vegetation depletion to the extent that some areas, on loose sandy soil, had been closed to grazing. The remaining 75% of the primary range area was timber and brush in good to fair condition.

At the start of the grazing season (1 July) the sheep were trailed about 120 miles from the vicinity of Weiser, Ida., north, to the allotments north of McCall, Ida. Ewes and lambs were trailed back to a set of corrals located in McCall about 1 September for weaning of the lambs. The ewes were trailed back to the allotments for bucking. At the end of the season (15 October), the ewes and replacement lambs were trailed back to Weiser. Some of the trails had animal impact four times during the season, and the long Van Wyck Driveway between McCall and Weiser was used twice a year. Phil Soulen stated very strongly that the trailing was necessary for economic considerations.

In 1973, prior to the plan, over half the grazing impact transects on primary range showed serious overuse. A further complication was that many acres of land, closed to grazing for trees to become established, were being grazed. The herders seemed unable to avoid the closed areas. A letter from the Forest Supervisor warned that repeated damage to these expensive reforestation efforts could result in permit revocation.

Editor's Note: The author, a graduate of Utah State University, has served as a Forest Service Ranger since 1962, and has been a District Ranger at McCall since 1972.



The Plan

Several actions were taken by the permittee to reduce the adverse impacts on the allotments. The most significant actions were Soulen's decision to reduce animal numbers by 2,000 ewes and to construct additional shipping corrals at Hard Creek Meadows, Brundage Meadows, and Pearl Creek to reduce trailing to a single shipping point. Both actions proved to be an important part of the plan. The specific objectives of the allotment management and development plan were:

1. The Forest Service would provide grazing for 4,000 head of sheep from 1 July to 5 October and for another 6,000 head from 1 July to 15 October. There would be increases in allowable animal numbers as transitory range areas (timber harvest areas where trees have been established but have not yet grown enough to shade out the grass and forbs) opened up.
2. Maintain or improve plant vigor, production, and composition on primary range by limiting forage utilization to the proper use as defined by Range Analysis guidelines. For example, average utilization of key species not to exceed 40%.
3. Improve ground cover on areas with unsatisfactory condition ratings, as defined by: (1) fair with downward trend, (2) poor, or (3) very poor. The minimum acceptable goal was a stable soil trend with less than 20% soil disturbance.
4. Stabilize soil and vegetative trend on at least half the driveway corridor between Bear Basin and Sater Meadows by 1985 (approximately 500 acres).
5. Utilize transitory range to the extent feasible while insuring success of forest regeneration. Thin, prune or clear trees on suitable areas for bedgrounds in the vicinity of transitory range where utilization was limited by lack of bedgrounds.
6. Coordinate grazing use and timing at recreational concentration areas so that conflicts with human use are minimized. Insure the closure to bedding and trailing around Upper Payette Lake, Twenty Mile Lakes, Granite Lake, and Brundage Reservoir. Light grazing may be authorized in these areas after the Labor Day weekend.
7. Stabilize streambank areas on the driveways through adjustments in use and appropriate project work.
8. Insure adequate forage for private recreation stock at agreed upon locations.
9. Construct access trails, bridges, shipping corrals, and bedground areas as needed, to gain access to grazing areas previously inaccessable for improved animal distribution, and to reduce conflicts with other resources.
10. Protect the pristine character of the McHand Lake Basin by closing it to grazing.

The grazing system agreed upon was a six-year cycle on 14 allotments and included (1) deferred use until after the seeds of preferred grasses and forbs were matured, and (2) rest for three allotments annually. Planned improvement projects included construction or reconstruction of five shipping corrals; construction of 30 miles of trail for access to range which was currently inaccessible; deferment of trailing on alternate years; construction of eight bedgrounds to replace those now inside plantation boundaries; and construction of one sheep bridge.

For objectives 5 and 9, money was provided by the Forest Service with Soulen providing labor and some materials. The Forest Service provided monetary investment for noxious weed spray, grass seeding, and streambank stabilization for objectives 2, 3, 4, and 7.

What Was Done

The first cycle of the grazing system was completed in 1984. All improvement projects were completed with the exception of the sheep bridge and 5 miles of access trail. Additional projects included control of noxious weeds in specific areas and some stream bank stabilization.

A significant part of the success on the allotments is attributed to the hiring by the Forest Service of a Spanish speaking "plantation guard" who works directly with the herders when they are grazing open plantations or near closed plantations. Damage to plantations is now an infrequent occurrence.

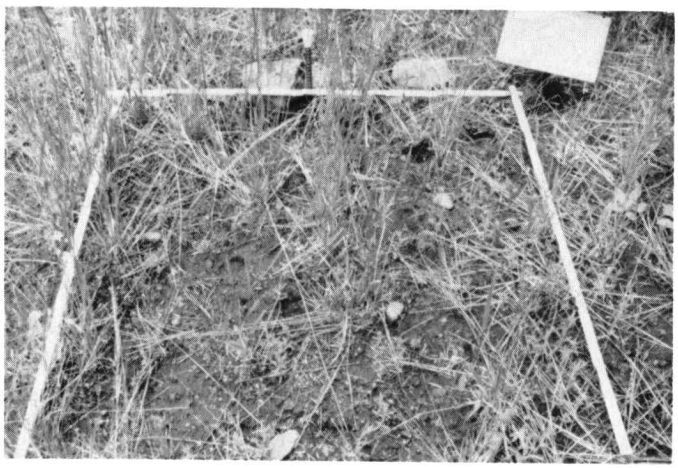
Conditions in 1984

There are many indications of the success of the plan and the cooperative work between Soulen Livestock Company and the Forest Service.

The first indication of success is that objectives 1 and 2 of the plan are being met with few instances of excessive utilization or disturbance. For goal 4, it is estimated that more than 70% of the corridor has been stabilized. For goal 5, there are about 1,400 acres of plantations now being grazed and these

supply a substantial portion of the grazing capacity of several allotments. Goals 6, 8, and 10 have been fully implemented, a result of changes in other areas providing sufficient forage to make these areas no longer needed. Goals 3 and 7 are progressing, although more time will be required for recovery of the most severely depleted areas.

Some of the most dramatic indications of success are that Hartley Meadows is again a hairgrass meadow and Bear Basin now has the appearance of a grass meadow. Some of the transects taken on primary range in 1983 show dramatic increases in forage production over 1973, but it will take several more years to quantify the differences. One nonbeneficial result is that ponderosa pine and lodgepole pine are invading some of the meadows.



In Retrospect

When reviewing the factors leading to the success on the Soulen allotments, it is difficult to separate those which are resource related—such as less trailing, deferred and rested rotation of allotments—from those which are people related—such as greater permittee interest, better herding, and better coordination and cooperation. In the long run it makes no difference. The stage is now set for continued long-term grazing, with an upward trend in vegetative and soil conditions which can be defended to a critical public.●

International Rangelands Development Symposium to be Held at 1985 SRM Annual Meeting

Rangelands in developing countries are often associated with famine, starvation, drought, and declining capacity to sustain human and animal populations. Even in more developed countries, most rangelands produce well below potential, and sound range management principles are often ignored.

Why are range resource managers and users not adopting "better practices" and increasing benefits? Obviously the answer is complex, but the first emphasis must be on people! The resource left alone can manage quite successfully. However, it's the people that control how the resources are utilized. The first key to improving rangeland benefits must be understanding human and cultural strengths and constraints to management.

Anyone interested in presenting a volunteer paper at the symposium (addressing the theme) should submit an abstract and brief biographical sketch by September 28, 1984, to Dr. Larry D. White, Chairman of International Affairs Committee, P.O. Drawer 1849, Uvalde, TX 78801.

Starting at Salt Lake City in 1985, the International Affairs Committee of SRM is sponsoring an annual symposium to provide range professionals practical knowledge necessary for improving management of rangeland resources and human benefits in developing countries. The symposia will concentrate on an annual theme with invited and volunteer speakers and proceedings publication available at cost at the symposium. Authors submitting abstracts will be notified of acceptance or rejection, and instructions on manuscript preparation will be sent by mid-October 1984. By submitting an abstract the author(s) agree that if accepted, he will be at Salt Lake City to present the paper. Authors will be provided a complimentary copy of the proceedings. *The final camera ready original manuscript must be received by December 3, 1984.*

The theme of the first symposium—to be held February 13 and 14—will be "Human and Cultural Understanding—Key to Improving Benefits from Rangelands." A letter has been sent by SRM President Joe Schuster to each U.S.A. range department with an accompanying letter welcoming foreign students to the U.S.A. and inviting them to participate in SRM activities.

If you have trouble getting people to adopt sound management, we are sure the experiences and expertise at this symposium and in the proceedings will be invaluable. Plan now to attend. If more information is needed, write the Chairman, International Affairs Committee.

Experimental Stewardship—What's Happening?

C. Rex Cleary

Experimental Stewardship was authorized by the Public Rangeland Improvement Act of 1978. Congress asked the Secretaries of Agriculture and Interior to develop and implement an experimental program which would provide incentives or rewards for the holders of grazing permits whose stewardship improved the condition of the lands.

I have my own ideas why, in part, Congress asked for this experimentation. In the mid 70's, Congressmen were being bombarded by hostile constituencies. The various constituent interests were locked in combat over the Bureau of Land Management Grazing Environmental Impact Statements that had been mandated by a Federal Court. I visualize the Congressmen saying—"Whoa, wait a minute. There must be a better way— a way to settle issues at the local level."

Ultimately, the Secretaries jointly established 3 structured program areas for experimentation. The 3 programs are in Montana, Idaho, and California. The Modoc/Washoe area, the focus of this paper, embraces 2 1/4 million acres of Bureau of Land Management (BLM), U.S. Forest Service, and private land in NE California and NW Nevada.

Historically, there have been a lot of cooperative planning and management efforts throughout the West with varying degrees of success. I have searched for the factors in the Modoc/Washoe Program that may go beyond the good work that has been done in the past.

Let us look at some of these factors.

Broad Representation

The founders of, and participants in, the Modoc/Washoe Program see range management, or stewardship, as more comprehensive than livestock management. We have chosen to address all resources of the rangelands and to accommodate, if possible, all needs of public land uses in our planning and management. Thus, we have attempted to incorporate representatives of those agencies, organizations, and associations having direct interest in land management in our area. Ranchers, county government, university range science departments, county extension service, Soil Conservation Service (SCS), Resource Conservation Districts (RCD), Agricultural Stabilization and Conservation Service (ASCS), Audubon Society, State Game Department, State Agricultural Departments, Fish and Wildlife Service, and the National Wildlife Society joined the Forest Supervisor and myself as equal participants to operate the program.

Organizational Structure

We have created a highly structured mechanism.

Editor's Note: The author is BLM District Manager in Susanville, Calif., and one of the participants of the program. This success story proves that if there is a will there is a way.

The Steering Committee has 21 members representing 2 state political systems of the previously mentioned participants. As much as possible, this is made up of management

level representatives. They are not expected to be technical experts.

The technical experts belong to Technical Review Teams, (TRT), that are assigned to problem solving for specific issues or specific allotments. Each TRT has a minimum of 5 people with an environmental representative, a rancher, a

Fish and Game Department employee, a SCS employee, and one from the Forest Service or BLM. Others, such as representatives concerned with wild horses or archaeology, are added if warranted.

We also have an Executive Committee of the Steering Committee. The Executive Committee meets more frequently to take care of details. Thus, the Steering Committee can

accomplish more when it does meet, and concentrate on policy, process, and direction.

Additionally, we have over two dozen standing subcommittees oriented to specific subject areas of work. Examples are subcommittees on Incentives, Wild Horses, Riparian Habitat, Grazing Fee Credit Experiment, etc.

Work constantly flows at all levels of the structure.

Goals and Operating Principles

Rancher representative Jean Schadler, who served as the Steering Committee Chairman for the first 2 1/2 years, put it this way?

"The Modoc/Washoe Program is successful, in part because we spent several sessions developing a common understanding of each other's philosophical viewpoints. Then, we agreed to the philosophical principles under which we would act. We agreed that our long-term goal is to 'foster cooperation and coordination among the various users . . . and agencies' to achieve 3 objectives:

1. Environmental improvement
2. Integrated and improved management of all ownerships.
3. Through improved management, long-term stability of the economy.

We still spend time and energy in philosophical discussions. We still frustrate and anger each other with our biases, assumptions, and fears. However, we agreed, early on, not just to let each other live, but to strive to improve the quality of life for all of us by advocating our own needs clearly, and hearing the needs of others."

Congressional License

We have a mandate for Congress. I am not sure how much this influences the working environment. But I do know that it made it easier to get a commitment when the Forest Supervisor and I first approached busy people asking them to dedicate a significant portion of their time to this effort. First, Congress had asked for the program. Second, the appointees were, in effect, to serve on behalf of the Secretaries. Status in part maybe, but more importantly—influence. Someone at high levels would be listening to them.

Experimental Authority

This lends an atmosphere of excitment and challenge. The authority existed to try ideas that were new—even daring. Regulations could be waived (with justification) to search for new solutions to old problems. The program was not stifled by rigid policies, procedures, and regulations.

Strong Agency Support

The BLM and Forest Service provide strong backup and support. By this I do not mean clerical support. I mean hours and days gathering and displaying technical information; constant logistical strategies. My staff contends that they work much harder to prepare backup materials to send a TRT to the field than they ever did in a traditional mode of solving the problems themselves.

There is an old adage that I feel applies here. "Why is there never enough time to do it right—but always enough time to do it over." We operate on the principle of doing it right the first time. In the end it takes less time when you have to do not have to do it over—and over—and over again *in court.*

Consensus

We agreed at our first Steering Committee Meeting to take the ultimate risk in a negotiation setting. We agreed that all decisions or actions of the Committee would be reached by consensus. For us, it means that all decisions, recommendations, and actions taken by the Committee would be by unanimous agreement. Any issue not receiving unanimous resolution would be sent back to a working committee for further study or would be tabled. We extended this operating rule to all levels. No level of the structure can pass a recommendation on to the next level without unanimous agreement.

I emphasize this because I feel the consensus rule has been particularly instrumental in the success story. Yet the concept of operating by consensus is controversial itself. The concept is frightening to some. Everyone was at least apprehensive at the outset. But, the longer it has been used, the greater is the confidence and trust in the process. I have been on the road telling the Stewardship story to a number of groups and organizations. Without fail, the notion of operating by consensus has generated the greatest reservation in all I have talked to.

William Ouchi, in his book on Japanese Corporate Management "Theory Z," states:

"American managers are fond of chiding the Japanese by observing that if you're going to Japan to make a sale or close a deal and you think it will take 2 days, allow 2 weeks and if you're lucky you'll get a 'maybe.' It takes the Japanese forever to make a decision. True enough, but Japanese business people who have experience dealing in the United States will often say Americans are quick to sign a contract or make a decision. But try to get them to implement it—it takes them forever!"

I see a parallel in our process. We have, and still do, take a lot of time, worrisome time to some, in taking our actions, But, the implementation is happening—easily!

At the outset, one of our strongest critics was the Sierra Club. Nevertheless, they participated and served on some of our most controversial Technical Review Teams. Last summer at a tour we conducted for the National Cattleman's Association Public Lands Committee, Rose Strickland of the Reno Sierra Club stated in part:

"We have come a long way from (these) shakey beginnings. Sierra Club members have learned a lot about range and wildlife resources. Some of us progressed from discovering that low sage doesn't get that way from overgrazing to learning that overgrazing doesn't always mean reduction in livestock numbers. And we're just starting.

Jean Schadler, the rancher representative previously quoted, ended a recent speech by stating:

"As a life-long participant in American movements, I am reserving judgment on the cooperative management movement until I see how agency professionals, as individuals, use this model program. If they embrace it, it will be a success. If they ignore it or rationalize it, it will be an idea whose time came and went. In the meantime, the Experimental

Stewardship Program saved the life of my family's business. That was our goal. That makes it a success."

Experimental Stewardship Programs have been endorsed by the Range Resource Management Task Force of the National Governor's Association. In a letter to Secretary of the Interior William Clark, Montana Governor Ted Schwinden, chairman of the Committee, urged "expansion of the program and its management processes throughout the West". The letter was co-signed by Wyoming Governor Ed Herschler, and Idaho Governor John V. Evans. The 3 governors said, "If compromise and stability can be achieved among social, environmental, and economic interests surrounding the vast public rangelands, they can be achieved in other areas of natural resource management as well." They told Mr. Clark "the experimental stewardship program should be expanded because it:

1. Has become the most outstanding example of a state/federal/public/private partnership in natural resource management.
2. Has saved legal fees through the prevention of conflict and litigation and, by targeting money and resources for the most needy areas, has secured a better return for dollars invested in range management.
3. Involves all people and interests at all levels in the decision-making process governing specific land resource units.
4. Places the highest priority on rangeland resources and their improvement and allows the management process to transcend administrative and jurisdictional boundaries.
5. Encourages agency cooperation-reducing administrative duplication- and facilities cooperation among public and private interests.

After all is said and done, the results of the Experimental Stewardship Program may be suggesting a "philosophy of land management" as much as a process or technique.

I am going to end on a philosophical note from a treatise on the forestry profession, but the principles apply to all land management professions. The following is from an article "The Myth of the Omnipotent Forester" by R.W. Behan, University of Montana:

"Dr. Zivnuska says (in his article "Forestry: A Profession or a Field of Work") all that need be said if we will take the time and expend the effort to consider it thoughtfully." 'The practice of forestry involves the management of forests and related wild lands for the various ends of society. A forester is a manager of forests and wild lands for these ends.'

It is when the professional forester arbitrarily *determines* those ends (or even clumsily tries to) that he most seriously violates our classless sociology and our democratic politics. Then is displayed the Omnipotent Forester: at his best he's an amusing anachronism; at his worst he can be dangerous. For the 'various ends of society,' in our unique society, are and will be set only by that society, and not by a professional class of foresters. It is when we as professional foresters either can't or won't understand this that we get the most rapidly into the hottest water. (And our forestry school training helps us very little in sensibly avoiding getting there or capably getting out.) It is when we attempt to determine ends that 'pressure groups' become most hostile, challenging our leadership in resource conservation, and they do so quickly and properly."

As I look at it, the Modoc/Washoe Program has come a long way in providing a process where society can "set the ends." Morever, my staff and I derive great satisfaction in both managing the process, and in managing the lands for these ends. ●

Cooperative Management Agreements

Charlotte Yarrington-Ball

Cooperative: adj. 1. working or acting together willingly for a common purpose or benefit (Random House Dictionary of the English Language).

Contrary to popular belief, the relative size of the Federal Government has been declining steadily over the past few decades. In 1952, there were more than 16 Federal employees to serve 1,000 members of the public; today, there are about 12 employees. While this relative decrease in Federal employees has monetary advantages for the taxpayer, it has disadvantages for growing numbers of public land users, who have been steadily increasing their demands for access to and use of public land resources.

One proven method the Bureau of Land Management (BLM) employs to meet demands for public land use—without larger appropriations and staffs—is to involve users in participative management. This method dates back to 1934, when the Division of Grazing (predecessor to the BLM) relied on informal boards of stockmen to help implement the Taylor Grazing Act. These boards helped to establish grazing districts, determine grazing privileges, and settle appeals.

For more than 20 years, the BLM has cooperated with State wildlife agencies in managing wildlife habitat. Through

Volunteer sportsmen from Yerrington, Nev., and a Nevada Department of Wildlife biologist lower a storage trough into place for a guzzler they are building on BLM lands to supply water needed for wildlife.

cooperative agreements, BLM and the States have been able to pool funding and resources to improve habitat to protect endangered species, increase wildlife numbers, and provide other benefits to wildlife resource users. Other user groups have been encouraged to participate in public land management through a variety of volunteer efforts.

User participation also has been encouraged in laws related to public land management, beginning with the Taylor Grazing Act. The most recent Act—The Public Rangelands Improvement Act of 1978—established the ongoing Experimental Stewardship Program. Under this program, the BLM and the Forest Service are to experiment with rewards or incentives designed to encourage users to improve the condition of the public lands for grazing and

A livestock operator and a BLM range conservationist examine resource conditions in a grazing allotment. Outstanding operators may enter into cooperative management agreements that permit them to install range improvements and adjust grazing use while meeting or exceeding objectives for multiple-use resource conditions.

other uses. Stewardship arrangements emphasizing cooperative management efforts between land management agencies and livestock operators were specifically mentioned as an incentive.

In Experimental Stewardship Program areas, local livestock operators are working with other interest groups, involved State and Federal agencies, and BLM managers to explore mutually acceptable alternatives for attaining multiple-use objectives for the public lands. The results of this cooperation to date have been rewarding. In many instances, understanding and acceptance of another group's viewpoint are producing the compromises and trade-offs necessary for multiple-use management.

With success as the precedent, the BLM has initiated a Cooperative Management Agreement (CMA) program. The intent of this program is to provide users with additional opportunities to participate in land management efforts by involving them in actual on-the-ground management. A CMA is a formal, written agreement between the BLM and a land user or user group for shared management for grazing,

Editor's Note: This paper is a shortened version of the paper "Cooperative Management Agreements" by Charlotte Yarrington-Ball which appeared in *YOUR PUBLIC LANDS: Cooperation in Resource Management* Volume 34, Number 1 USDI-BLM Washington, D.C. 1984.

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recreation, wildlife or another site-specific activity. For example, a CMA enables a wildlife group to share responsibility with the BLM for maintenance and improvement of wildlife habitat in a critical habitat area. Livestock operators may share responsibility for grazing management on their individual grazing allotments.

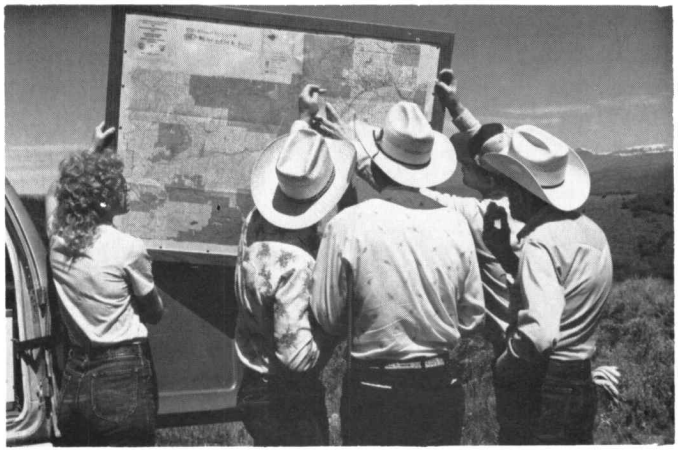
Ranchers may install cattleguards and other range improvements in accordance with permits or cooperative management agreements. Cattleguards help manage livestock grazing and eliminate gate problems incidental to recreational use of BLM lands.

The BLM exercises its ultimate responsibility for the land through the terms and conditions included in each agreement and periodic monitoring of resource conditions. A CMA does not allow a cooperator to manage, limit, or exclude other uses of an area nor does it exclude the cooperator from existing laws and regulations affecting public land use.

A major objective of the CMA program is to involve individual livestock operators in participative management. Many operators have improved resource conditions within their allotments by conscientiously applying grazing management practices that also accommodate others uses. The BLM believes these operators should be recognized for their efforts, both to reward them for their abilities and to give visibility to the best grazing management practices.

The BLM designed grazing-related CMA's to fill this dual function. Livestock operators receiving CMA's may adjust the season of use and numbers and kinds of livestock grazed on their allotments. Fees for the grazing use may be paid at the end of, rather than prior to, the grazing fee year to account for fluctuations in use. However, flexibility of grazing use will be within sideboards set by the BLM, as required by the Taylor Grazing Act.

As an additional reward, grazing-related CMA's were designed to provide an operator with some assurance of long-term tenure on the allotment. CMA's with livestock operators will be issued for a 10-year period, with an evaluation at the end of the first 5 years. If the evaluation shows that the operator's grazing management practices are aiding progress toward management objectives for the allotment, the BLM may renew both the CMA and the permit or lease for another 10 years from the time of the evaluation. In other words, every 5 years, an operator who continued to meet the objectives of the CMA would be assured of another 10 years



Colorado ranchers discuss allocation of resource uses and rangeland improvements with BLM representatives.

of grazing use on the allotment. This assurance of tenure should give the operator an advantage in making long-range plans for his or her grazing operation.

Although similar in some respects, a CMA should not be confused with the BLM's allotment management plans (AMP). Like an AMP, a CMA outlines the multiple-use, sustained yield objectives for the allotment that were developed through land-use planning. A CMA, however, is developed only for allotments where these objectives are already being met. It is an agreement by the operator to continue current grazing management practices so that these objectives will continue to be met. The structured flexibility it gives an operator to exercise his demonstrated management abilities helps ensure that this occurs.

An AMP, on the other hand, is a structured plan. It normally sets out detailed management practices—such as a grazing system—and improvement actions that must be followed to achieve the established objectives. An AMP generally involves changes in the grazing operation since it is frequently developed to resolve an existing resource or management problem.

Not all livestock operators will be eligible for a CMA. Operators must first be nominated as outstanding grazing managers and approved by a screening committee before being offered CMA's. They must have operated on their allotments for a sufficient period of time to have clearly demonstrated good management practices.

Soil Conservation Districts, State and Federal wildlife agencies, advisory committees, or other local groups can submit nominations. These nominations will be screened by District advisory committees or a group specifically organized for the purpose. After a CMA has been developed with a selected operator, the District Grazing Advisory Board and the District Multiple-Use Advisory Council must recommend that the BLM enter into the CMA.

The allotment used by the operator also must meet certain conditions. It must be in good condition, with no serious conflicts among uses. Multiple-use and sustained yield objectives for the allotment must be being achieved under current BLM and operator management actions. And normally, the final grazing environmental impact statement for the area must have been completed and the associated land-use plan approved.

The BLM's CMA program is well underway in most States. Over 120 operators have been nominated to date for their outstanding grazing management practices. More nominations are expected as the program becomes better known.

The BLM also has received numerous nominations for other user and interest groups that deserve a greater role in participative management. Proposed CMA's with these groups involve protection of wildlife habitat and archeological resources, dune stabilization, trail maintenance, and monitoring of off-road-vehicle use.

Cooperative management agreements will enable BLM to concentrate appropriated funds on areas where intensive Federal management is most needed. In addition, cooperative management efforts should provide the public with facilities or user opportunities that would not be possible under BLM capabilities alone. The common goal of the BLM and the public is to improve resource conditions for all. Working together toward this goal will make it possible for the BLM to meet the user demands of the future. ●

Revocation of Rangeland Permits: A Case Study

Con P. Lynch

Beginning in 1977, the Bureau of Land Management (BLM) began to prepare, draft and revise 144 Environmental Impact Statements (EIS). The purpose of each statement was to disclose the environmental impacts of grazing upon the public lands and to help the BLM to make decisions to preserve and protect the public lands. In 1981, the BLM District of Lakeview, Ore., completed its EIS. Although there were no complete revocations of rangeland permits, there were partial revocations. This article focuses on the potential effects of a complete permit revocation and how such a decision would affect the Lynch Brothers Ranch which is located in southcentral Oregon.

The Current Lynch Brothers Operation

The Lynch Brothers' Ranch is owned and operated by Phil and Jim Lynch and is located 42 miles northeast of Lakeview. The ranch has been in the Lynch family for over 80 years and utilizes many traditional ranching techniques. Lynch Brothers' public land allotment includes 107,720 acres, which are divided into five pastures. Currently, 91,400 acres are managed under a "rest rotation" system which Lynch Brothers. entered into in 1975. Under the rest rotation system, the public lands are divided into three separate pastures and each pasture is used on an alternating basis. The objectives under this system are to establish a higher level of forage vigor, increase litter to establish new seedlings, strive for a higher level of forage diversity, and to meet growth requirements of plants and animals.

Working in a desert country, Lynch Brothers' run a cow-calf operation. Presently the ranch runs 2,490 head of cattle. Traditional operation techniques allow the ranch to be basically self-sufficient and to produce high quality beef. Currently, Lynch Brothers trail their cattle to the public range land in March. Trailing eliminates trucking costs and is faster considering the herd size and road conditions. The cattle are placed in one of the three pastures in the rest rotation until July. During July, approximately 400 head will be separated and moved to one of the two remaining pastures where they will remain until September. These 400 head are used as a tool to accomplish the BLM's objective under the rest rotation system. After September these cattle return to the ranch headquarters in Plush, Ore., where they will remain until the following March. Meanwhile, the rest of the cattle are trailed some 150 miles (the trip takes 2-3 weeks) to Lynch Brothers summer range, which includes both privately owned land and United States Forest Service permit lands. Those cattle will remain on the Lynch summer range until heavy snow force the return to the ranch headquarters. Usually this occurs sometime in October or November.

Once all of the cattle have returned to the headquarters, and beginning in the late fall, the cattle are fed hay that was produced on the Lynch ranch the previous summer. This hay is supplemented by third-cutting alfalfa hay purchased within the immediate area. The hay is fed directly on the hay-producing pastures. In the spring after the cattle have been moved to the public lands, a homemade drag is used to break up and spread the manure that remains on the fields. This natural fertilization reduces and, in most cases, eliminates the use and need for commercial fertilizers.

The use of traditional ranching techniques means that irrigation is accomplished by flooding of the fields. The Lynch operation is simple, natural, and non-energy intensive. Many of the costs and much of the energy consumption common in modern agricultural techniques and operations are eliminated by the older methods. Granted, the area does not produce its maximum yield, but the above characteristics would be forfeited if Lynch Brothers attempted to maximize their yield. For example, located just a few miles from the Lynch headquarters ranch is an area referred to as the Swamp. This privately owned land is lower in elevation than the largest body of water in the Valley, Hart Lake. The Swamp is operated entirely in its natural state. The grass is strictly

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native, no commercial fertilizer is used, and no modern agricultural techniques are applied. Springtime irrigation is accomplished by flooding the entire area with several feet of water creating an ideal habitat for wildlife. Throughout the year, whether cattle are present or not, the Swamp is a nesting group for thousands of birds such as swans, eagles, ducks, geese, sandhill cranes, and hawks. Deer and an occasional Big Horn sheep come off the Hart Mountain Refuge to

Pictures by Jeri Munsun
Deer located on the Lynch-Flynn allotment near Plush, Ore.

feed with the cattle or to find shelter in the tules, levies, and dikes. Currently, cattle and wildlife co-habitate in this area with little or no affect on one another. In fact, the Lynch Brothers' method of operation enhances the wildlife habitat in this area. When summer arrives, the Swamp is allowed to dry up. Some of it is hayed for feed for the winter, but most is left untouched. The cut hay is baled into round bales or bunched and left lying in the fields where it is eaten and used as bedding grounds for the cattle or wildlife during the winter.

Revocation

Although there is precedent for complete revocation of rangeland permits, revocations where required customarily entail only a lesser percentage of the permit. Nevertheless, hypothesize that Lynch Brothers' permit was completely revoked. This enables an analysis of the impacts and affects of complete revocation.[1]

In the short run, the amount of perennial grass and old feed would increase drastically. In fact, the increase of old feed over time would be so high that the amount of new grass each year would decrease. Even though the amount of old feed increases, the nutritional value of this feed decreases. Therefore, a revocation of the public land permit would affect wildlife. The BLM currently uses domestic livestock as a tool to help create wildlife habitat diversity and improve wildlife forage quality during crucial periods. There is very little competition between domestic livestock and wildlife for forage if the vegetation resource is properly managed. In the case of a revocation, the removal of the livestock might well be followed by a decline in the wildlife population in response to reduced forage quality and decreased diversity of forages. To alleviate these impacts, the BLM needs to alter its management practices. Without livestock on the public lands, the BLM needs to do more small wildlife habitat work such as establishing periodic controlled spot burning to afford diversity and early spring bush forage for wildlife. Without burning the probability that wildlife population would decrease would be much higher because of the reduction in nutritional value attributable to the increase in old feed.

Changes in the Lynch Operation after a Revocation

In the event of a revocation, Lynch Brothers have three options which could be implemented in order to compensate for the loss of their BLM permit. These options include:

1. Reduction of the cattle herd size to handle the revocation.

2. Upgrading of the ranch's technological practices in an attempt to maintain the current cattle herd size, requiring more modern agricultural techniques to increase the yield of the private land.

3. Increase the inputs of the ranch's operation needs in order to maintain the cattle herd size.

None of the above options could alone replace Lynch Brother's use of the public rangeland. A combination of all the options would have to be implemented in order to replace the public rangelands now used by the Lynch ranch. Therefore, Lynch Brothers would have to reduce the size of their cattle herd, upgrade technological practices, increase input, and improve private pastures. But to what extent would these steps have to be taken?

The BLM estimates that on a yearly basis the Lynch operation is 14.4% dependent on the public rangeland. A complete revocation of the Lynch permit would require a reduction of the cattle herd from 2,490 to 2,131 head. However, the BLM permit is basically used from March to July of each year. During this 5-month period BLM estimates Lynch Brothers are 49.9% dependent on the public rangeland. Therefore, Lynch Brothers would actually have to reduce their herd from 2,490 to 1,247 head.

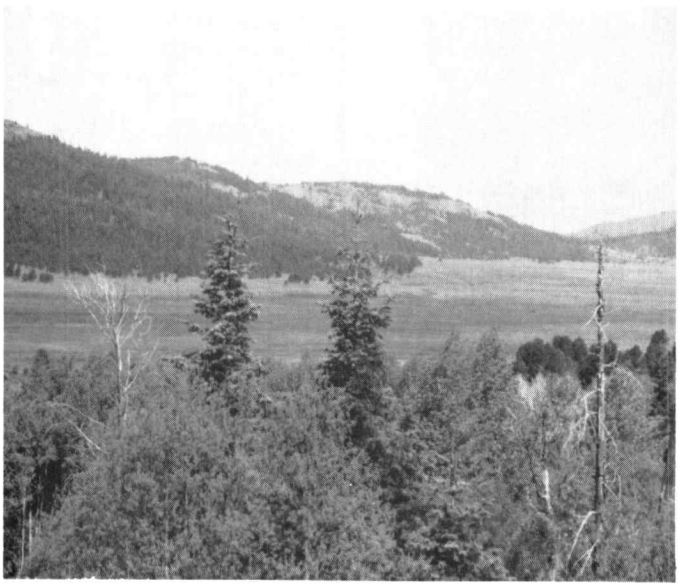
In addition to reducing the herd size, private pastures would be rented. Although it is difficult to determine where, it could be as close as Lakeview or as far away as Red Bluff, Calif., 300 miles away. The quality of rented pasture is normally much better than the desert rangeland, but it also costs much more. A comparison of costs show that one cow and

[1]People consulted as to the affects of a complete revocation include: William Krueger, Colorado State University; Art Gerity, retired manager of Lakeview District of BLM; A.K. Majorowicz manager of Warner Valley Unit Lakeview District of BLM; Phil C. Lynch, managing partner of Lynch Bros.; and the Lakeview District of BLM Environmental Impact Statement.

calf can be run on the public land for one month at a cost of $2.39. On the rented pasture, the same cow and calf cost about $15.00 a month.

Trucking would also be an added cost of renting private pastures. For example, in the event of revocation, Lynch Brothers would in all likelihood rent pasture south of Red Bluff, Calif. Trailing is therefore impossible. Hauling 1,200 pairs, Lynch Brothers would need approximately 27 trucks (approximately 45 pairs in each semitruck). At a cost of $2.00 per loaded mile, the total cost for the one-way trip would be $16,200. To haul the cattle back to the ranch, 37 trucks would be required since the calves would each weigh several hundred pounds more. The total round-trip would cost $38,400 ($22,200. for trucking costs back to the summer range) and the pasture rental cost would be $90,000 ($15 × 1200 × five months). Therefore, a total of $128,400 is required as opposed to the $16,910 it presently costs on the public land ($15,000 for the rent and $4,340 for trailing the cattle). This is a significant financial impact to be dealt with by any operation.

These increased costs are dramatic in themselves, but, looking more specifically at changes that would have to be made in the physical operation of the Lynch Ranch, there are



Pictures by Jeri Munsun

Camas Valley, privately owned by Lynch Brother's, is an area that would be greatly affected by a BLM permit revocation. Much of the natural beauty of the valley would be destroyed in order to increase production. There would be a strong possibility of sprinkler system being added to this area.

other far-reaching effects. Many of the older, less energy-intensive methods currently used would have to be substituted with more modern techniques which are both more productive and more energy intensive. One example is the use of chemical fertilizers. Current practices are such that Lynch Brothers do not use any chemical fertilizers. In the event of a revocation, more than 5,000 acres would be fertilized to increase the productivity of a portion of privately owned acreage.

With fertilizer on the ground and increased production the main goal, Lynch Brothers would need to improve their irrigation system. Numerous wells would be drilled to insure that the water supply would be constant throughout the irrigation season. Although initially the entire irrigation system would not be changed, the ranch would eventually change to sprinkler systems. Sprinkler systems waste less water and increase production of hay. However, this increases operational costs, and the operational improvements would jeopardize the financial stability of the Lynch operation.

There would also be some land alterations, especially in the area referred to as the Swamp. All of this area would have to be utilized in order to fulfill the increased feed requirements of the ranch. Thus, much of the wildlife habitat presently existing would be eliminated to accomplish this goal. Ponds that are used by birds would be filled and leveled with dirt; the tules that now grow and serve as nesting sites would be eliminated. All of the current practices used on this part of the ranch would be changed for increased production.

In addition to all of the factors discussed above, there are long-run implications a revocation has on the forage and wildlife of the private lands. Many of the native grasses presently used would be eliminated for more livestock nutritious grasses that yield more tonnage per acre. The changing of the forage may have minor impact but the clearing and leveling of the land would definitely have a large impact on the small wildlife habitats, especially for birds nesting in the area. Some animals would benefit from the better feed, but the removal of their natural cover might make these improved areas impossible for small wildlife to utilize. It is difficult to estimate to what extent Lynch private lands are utilized by the wildlife currently. The current Lynch operation allows both cattle and wildlife to co-habitate. However, without the BLM permit and the change in operations required, the ability of the wildlife to co-habitate with the cattle would be jeopardized. What is more of a tragedy and greater wildlife impact, is that all of the land near Plush that is the best wildlife habitat is privately owned land. If other ranchers in the area also had their permits revoked, then more wildlife habitat would be eliminated. There is very little public land located within a 100-mile radius of Plush that could replace this habitat. Some people may think this point is overexaggerated since the Hart Mountain Wildlife Refuge is located immediately East. However, Hart Mountain is an "upland" refuge and does not have the existing natural lake beds or swamp areas for waterfowl.

Another area of concern. The change in the Lynch Brothers operation will increase the energy dependency of the ranch. Currently, the ranch is dependent upon outside sources for petroleum products and electrical needs. If Lynch Brothers were forced to change their present operation to one requiring more technological inputs, the energy dependency of the ranch would increase.

Cost Comparison before and after a Revocation

Comparing the 1983 Lynch Brothers' operational costs to the estimated costs of the Lynch Ranch without the public rangeland permit offers further insight into the differences between the two operations. Although the costs for the operation without the permit are estimated, every attempt is made

to develop a realistic analysis.[2]

	with permit	without permit
Labor	$59,000	$79,000
Supplies	21,600	36,600
Repairs & Maintenance	25,000	40,000
Fuel, Oil, & Grease	25,000	55,000
Permits	15,000	-0-
Rented Pasture	-0-	90,000
Irrigation	8,500	39,300
Feed	6,600	28,000
Veterinary	8,500	17,000
Property Tax	29,500	29,500
Livestock Purchases	20,000	20,000
Utilities	8,000	20,000
Insurance	6,000	16,000
Hauling (contract)	2,700	38,400
Office Expenses & Brand Inspection	4,000	8,000
Equipment Purchases & Fencing	15,000	74,000
Hay	5,000	37,000
Fertilizer	-0-	240,000
Miscellaneous	8,500	23,500
Total	$267,300	$890,400

At a minimum the Lynch Ranch without the BLM permit is 3.38 times more expensive than the current Lynch Brothers operation. Categories with the major increases are related to the increased use of energy in one form or another. The costs and amounts of fertilizer necessarily increase 100%. The cost of utilities is up 2.5 times, irrigation costs increase 4.6 times, and contract hauling skyrockets 14.2 times. Because 11 of these categories involve an increase in energy-related needs, the dependency of the ranch on outside sources increases and the financial stability of the ranch is drastically affected.

[2]These projected costs for the Lynch Ranch without the public rangeland are minimum estimated operational costs which Phil C. Lynch, managing partner of Lynch Brothers, believes would result in the event of a revocation.

Keeping in mind that these are very conservative estimates, the ranch without the BLM permit requires a minimum budget of $890,400 in 1983 for operation costs, compared to the current $267,300 budget. These extra costs could make operations uneconomical. As a result of the cost increases, the consumer suffers by paying higher prices at the meat counter.

Conclusion

Review of the managing practices and procedures of the BLM has unquestionably been a very worthwhile project. Because the public range land is a renewable resource it is important to treat, maintain, and preserve it as such. However, extreme changes in management practices can, and do, have drastic changes not only on the public range land, but on the people who have come to depend upon its use. Short-run management practices have long-run effects and it is naive to believe that such practices do not affect the many ranching operations who use the public range land. In fact in most cases the BLM permit and the privilege to use the public range land are essential to the continued operation. Any permit reduction will have (and in many cases have had) an impact on ranches that depend on the use of the public land. That is not to say that there are no areas where the public range lands have been over used. But revocations have many problems and drastic impacts on the private ranch operations. There are other management projects and programs that have less impact on the rancher and yet accomplish the same goals. The end sought is wonderful, but the means dramatic—so dramatic that many ranch operations will never recover. As Justice Frankfurter of the United States Supreme Court once stated: "Wisdom too often never comes, and so one ought not to reject it merely because it comes late."[3]

[3]Henslee v. Union Planters Nat. Bank & Trust Co., 69 S. Ct. 290,293 (19)

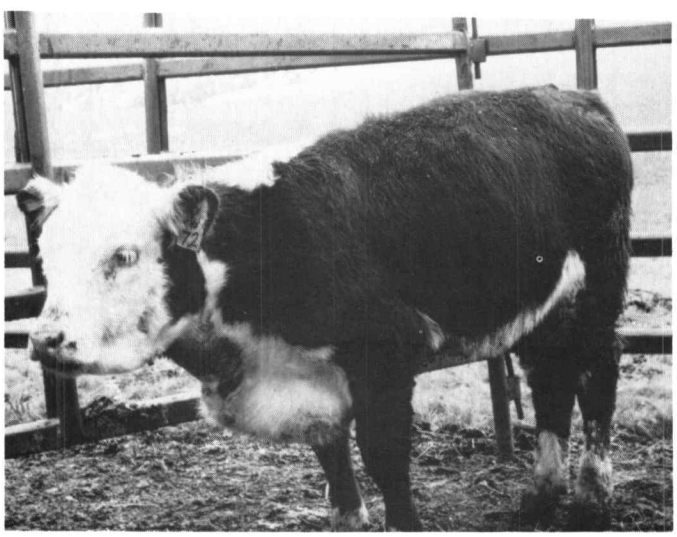
Management Practices Reduce Cattle Loss to Locoweed on High Mountain Range

M.H. Ralphs, L.F. James, D.B. Nielsen, and K.E. Panter

Locoweed poisoning of livestock was identified early in the history of grazing of western rangelands. The first published account of locoweed poisoning appeared in the Year Book of Agriculture in 1873. In 1906 Marsh (1909) conclusively demonstrated that species of the *Astragalus* and *Oxytropis* genera produced locoism in livestock. Despite much research effort, locoweed poisoning remains one of the major poisonous plant problems on western ranges. In a recent issue of *Rangelands*, James (1983) presented a concise summary of locoweed toxicity, symptoms, conditions of poisoning from desert locoweed species and preventive measures.

Locoweed poisoning at high elevations has an added dimension. Locoweed poisoning has been implicated as a predisposing factor of congestive right-sided heart failure or brisket disease on some high elevation ranges (James et al. 1983). Early investigators of locoweed poisoning in cattle also observed heart enlargement, swelling under the jaw, and a "dense liver." They suggested that fatalities in cattle poisoned on locoweed were greatest at elevations of 10,000 feet or above.[1] On some high mountain ranges, symptoms of locoism and congestive right heart failure may combine to reduce livestock production by:

1) reduced gains or weight loss in affected calves
2) abortions and reduction in fertility from locoism
3) deaths from congestive right-sided heart failure (Brisket Disease)
4) inefficient utilization of the forage resource.



Brisket disease in calf fed locoweed at high elevation.

Distribution and Ecology

White pointloco *(Oxytropis sericea)* occurs along the eastern slope of the continental divide from Montana to northern New Mexico. It is a component of the vegetative communities of the western plains and foothills of the Rocky Mountains. In southeast Utah, northwest Nevada, northwest Utah, and southern Idaho, it occurs on rocky, wind-swept mountain ridges up to 11,000 feet.

Payne (1957) concluded that white pointloco was present in the climax vegetative community, but increased with heavy livestock grazing. The foothill and mountain ranges were heavily grazed early in the century by transient sheep bands and large numbers of local livestock, resulting in increased densities of white pointloco. Through improved management the ranges have slowly improved, but the poisoning problem has continued and has been a severe management problem in localized areas since the 1920's.

Description of Study Area

A specific forest allotment is used to illustrate the magnitude of the locoweed poisoning/right-sided heart failure

Pasture infested with white pointloco before spraying 1981.

Authors are with the USDA, ARS, Poisonous Plant Research Laboratory, 1150 East 1400 North, Logan, Utah (Ralphs, James, Panter); Economics Department, Utah State University, Logan, Utah (Nielsen).

Editor's Note: This paper brings up a very good reason for practicing good range management.

[1]Unpublished data, USDA Poisonous Plant Research Lab, 1875-1935.

syndrome and the management steps which were taken to reduce the problem. Three permittees were allotted 728 cow months. Prior to the change in management, the grazing season ran from July 6 to September 15. Management of the allotment improved substantially during the 1960's. National Forest boundaries and allotments were fenced. Internal fences were constructed and a deferred grazing system was implemented. The first intensive range analysis conducted by the Forest Service in 1966 indicated that 49% of the Forest Service land and 67% of the private land fenced within the National Forest boundaries were in poor condition. In 1967, a rest rotation grazing system was implemented and 3 of the 4 pastures were sprayed with 2,4-D between 1969-1971. The fourth pasture was sprayed in 1981. Most of the sagebrush was killed and the forbs were greatly reduced. Locoweed was eliminated for a period of time.

Pasture after spraying 1983. White pointloco was temporarily eliminated and replaced by Idaho fescue and Poa spp.

General improvement in range condition followed. A large majority of the land classified in poor condition in 1966 improved to fair condition and the areas in fair and good condition were stabilized. However, locoweed began reappearing by 1975 and reached densities sufficient to cause livestock losses in 1977. The heavy utilization of the three grazed pastures in the rest rotation system may have increased the livestock poisoning problem by forcing more complete utilization of all forage.

Magnitude of Livestock Loss

In an average year, the ranchers estimated that 15-20% of the calves on the Forest allotment were sick. Half of these usually died. In dry years when grass was limited, the locoweed poisoning right-sided heart failure syndrome increased and affected up to 66% of the calves. Generally, calves, old cows, and new cattle were most affected. A preliminary economic analysis of the locoweed problem in 1978 estimated that the ranchers were losing a total of $30,689 in direct and indirect livestock loss to locoweed (Barnard 1984). Losses included: (1) deaths of calves and cows; (2) more heifers kept to replace severely poisoned cows; (3) reduction in calf crop from abortions and reduced fertility; (4) reduced weight gains on calves; (5) costs of increased feed to recuperating calves; and (6) additional labor required to ride through cattle looking for sick calves. Similar losses were reported on Wyoming and New Mexico cattle ranches experiencing locoweed problems (Nielsen 1984).

Management Strategies to Reduce Loss

Prior to 1966, the general management practice was to ride the mountain pastures 2 or 3 times a week and drive the sick calves and their mothers into the canyons where locoweed was not prevalent and let the mother cows slowly take the sick calves down the mountain. There was some hesitation against taking too many animals off the top of the mountain early because of lack of fall feed at the lower elevations.

One rancher gathered his cattle after August 1st and moved his entire herd to a locoweed-free pasture at a lower elevation. He contended that loco problems didn't begin until late in the season when cattle ran out of grass and water became limited.

In 1966, ranchers started carrying terramycin with them and injected antibiotics into sick animals. This may have helped reduce the pneumonia component of the disease complex.

In 1981, the fourth pasture was sprayed to control locoweed. Also in 1981, the grazing system was changed to a Merrill 3-herd, 4-pasture deferred rotation grazing system and the grazing season was reduced from 71 to 47 days. Animal numbers were increased to maintain the same number of AUM's. One third of the animals were placed in each of 3 pastures for the entire length of the season and one pasture was rested.

These practices have greatly reduced the locoweed poisoning-congestive right-sided heart failure problems during the last 3 years. The number of sick calves was reduced from 20% to 3%. It was possible to reduce the frequency of checking for sick calves from 2-3 times a week to once a week. The factors thought to be contributing to the reduction of losses were:

1) Grazing pressure was reduced in each pasture. With only 1/3 of the herd in each pasture, there was abundant grass and other palatable forage and cattle were not forced to consume locoweed.

2) Cattle were spread out and not moved during the grazing season, which may have resulted in less stress. Furthermore, their dietary patterns were not interrupted by moving from a heavily utilized pasture to a fresh pasture with abundant but mature forage as in the rest rotation grazing system.

3) The season was shortened and all animals were removed from the allotment before intoxication became serious.

4) Demand on the limited water supply in each pasture was reduced.

5) Spraying the one pasture with 2,4-D reduced locoweed and other less desirable forbs and shrubs and significantly increased grass production. Increased grass production was an important secondary benefit in helping to justify the cost of treatment.

The effective lifetime of the herbicide treatment (length of locoweed suppression) must be known to determine its eco-

nomic feasibility. The control of locoweed following herbicide treatments in the early 70's lasted 5-7 years under rest rotation grazing. The pasture sprayed in 1981 will be intensively monitored and adjustments made to determine if the deferred-rotation grazing system can extend the effective lifetime of the treatment.

Summary

Livestock loss to locoweed was substantially reduced by a change of grazing systems and range improvement practices. The Merrill 3-herd 4-pasture deferred rotation grazing system reduced grazing pressure and utilization of all forage species, including locoweeds. The shortened grazing season permitted removal of animals to locoweed-free pasture at a lower elevation before poisoning became serious. Reduction of locoweed by spraying eliminated the poisoning problem in the treated pasture, though the effects may be temporary. It is difficult to assess the contribution of each of the management changes to the overall reduction in livestock loss. However, the change of grazing system and reduced length of the grazing period substantially reduced the number of livestock poisoned in the unsprayed pastures without any capital expenditure.

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Youth Range Forum:

Can't Afford Those Lowdown' Range Bandits

Tom Lechner

Editor's Note:

This paper finished second in the Youth Forum at the 1984 Annual Meeting, Society for Range Management, in Rapid City, S. Dak. Tom, who lives in Winifred, Mont., became very interested in range management and public speaking through activities in the local Chapter of the Future Farmers of America and has attended countless contests in both categories at various levels of competition. He is frequently one of the top finishers. After completing high school, Tom plans to attend Montana State University and major in agricultural economics.

Today, north central Montana ranchers are being ripped off by the amount of approximately 30 million dollars annually. Who are the culprits? Bank Robbers? Cattle Rustlers? Fortunately it's neither. The bandits in this case are lowgrowing sodforming species such as dense clubmoss and blue grama. These lowgrowing and densely rooted species compete with the taller-growing deeper-rooted grasses not only by using up nutrients in the soil, but more seriously, by restricting the infiltration of water into the soil.

What can be done to apprehend these costly bandits? One method is chiseling. Chiseling is the ripping up of these mat formers, which allows water to infiltrate into the soil profile. This increases the production of more desirable species such as western wheatgrass and green needlegrass. Chiseling is widely used because the equipment is readily available. Toolbars incorporated with spikes set at 11 to 12-inch spacing are sufficient. A minimum cutting depth of 5 inches is necessary to achieve the needed soil disturbance. Pulling old tractor tires behind the plow helps insure that the clubmoss will not re-root. In addition, the soil that is shaken from the roots produces a smothering effect on the unchiseled clubmoss. The best time to chisel is either in early spring or late fall. Chiseling at these times insures that the resulting plant growth will have a full growing season to develop and build reserves for dormancy.

What are the results of chiseling? On a non-chiseled site the surface is densely matted clubmoss with a poorly developed root system. After the mat is ripped up, water infiltra-

tion increases and becomes available to the deeper-rooted grasses. I feel that the most important result of chiseling is the increased amount of water infiltration into the soil.

A chiseling done late in mid-May of 1983 illustrates that water infiltration increases. Two inches of moisture was recorded during 3 weeks after chiseling. At the end of the 3-week period, I checked soil water conditions in areas skipped by the chisels. There was no sign of available soil moisture in these areas. In contrast, the moisture had reached an approximate depth of 20 inches on the chiseled site. Western wheatgrass had already responded on the chiseled site, but little new wheatgrass growth was found on the non-chiseled site. In addition to improved water infiltration into the soil profile, chiseling also improves soil aeration.

A Montana rancher near the Canadian border chiseled a clubmoss-infested field in 1977. Within 2 years after the treatment, the rancher states that he has increased his stocking rate on the area by a factor of 3. A similar study conducted by Montana State University compared the useable forage on a plot dominated with clubmoss and blue grama with a similar plot that had received a double-pass chiseling treatment. In this study, desirable forage production doubled within 2 years on the chiseled area. Proper range management should follow any range improvement project. The area treated should be protected from grazing during the first growing season, except for light use after September 1 to allow for seed trampling.

In summary, the chiseling rips up the mat of dense clubmoss and blue grama. Secondly, it improves soil aeration. Thirdly, and possibly the most important, it improves the infiltration of water into the soil, which increases the production of more desirable grasses such as western wheatgrass and green needlegrass. As with any project, cost must be considered. It is estimated that a single-pass chiseling project costs approximately $12 to $15 per acre. Again, I will stress the importance of grazing management. Remember, corrective measures are of no avail unless good management is practiced after the improvement. Every year these mat forming rip-offs are the instigators of multi-million dollar crimes. With the use of mechanical treatment these bandits can be stopped.

Project to Renew 66,000 Acres

Bill Keil

The whump, whump, whump of helicopter blades echoes across the south central Oregon hills of BLM's Lakeview district. Seed whirls from the dangling bucket onto the fire-scourged rangeland as crews race the weather to complete one of BLM's largest range fire rehabilitation projects in Oregon.

At the same time, crawler tractors, rubber-tired tractors, and even front-end loaders temporarily assigned from western Oregon road maintenance crews pull heavy-duty rangeland drills round and round the range, discing, metering out seed, and covering it.

The project involves dozens of BLM employees from top managers and purchasing people, to resource professionals and technicians, to the employees running the equipment, and the contractors and local cooperating ranches.

Project Covers Ground

By the time they finish this month (November 1983), they will have seeded the equivalent of a 2-mile-wide swath from Portland to Salem, or from Klamath Falls to Ashland. That's some 66,000 acres.

Last August, managers flew over the still-smoking 72,010 acre Sharp Top fire. They knew that strong winds would soon whip up the ashes and soil. Something had to be done fast to protect the soil on a large share of the burn.

The staff soon had a plan to reseed the land and the outcome was an emergency financing proposal, approved by Washington, D.C., for nearly one million dollars.

Archeologists Check Sites

First action was for a crew of ten temporary archeologists to locate spots that obviously should not be disturbed—prehistoric campsites and such locations as hunting blinds. These were pulled from the project.

At the same time, the purchasing people started on the trail of seed—some 500,000 pounds of it. This year had not been a bumper crop for grass seed and they scrambled to round up a supply of rye and crested wheatgrass.

The vigorous-rooted annual rye produces a temporary cover to hold the soil and nurse the crested wheatgrass which eventually will dominate. The two are mixed before seeding.

Seeded from Air

The final plan calls for about one-fourth of the area to be seeded from the air, but it isn't just a matter of spreading the seed onto the ground. It must be covered. They "chain" it into the ground, shackling an end of a large ship's anchor chain

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This article is a reprint from *BLM News for Washington and Oregon*, November 1983.

Panorama of featureless country after burn shows seven sets of rangeland drills working ever-widening swath. Thirty-five drills were used on the project.

to each of two crawler tractors. The tractors drag the 350-foot-long chain across the seeding, covering the seed about one inch deep.

But the old standbys, the range drills, are still carrying the heavy part of the project. BLM's Vale district people scoured the West to locate 35 of the wheeled drills which carve furrows, deposit seeds, and cover them with soil. The problem was complicated this year by other large western range fire rehabilitation projects requiring equipment at the same time.

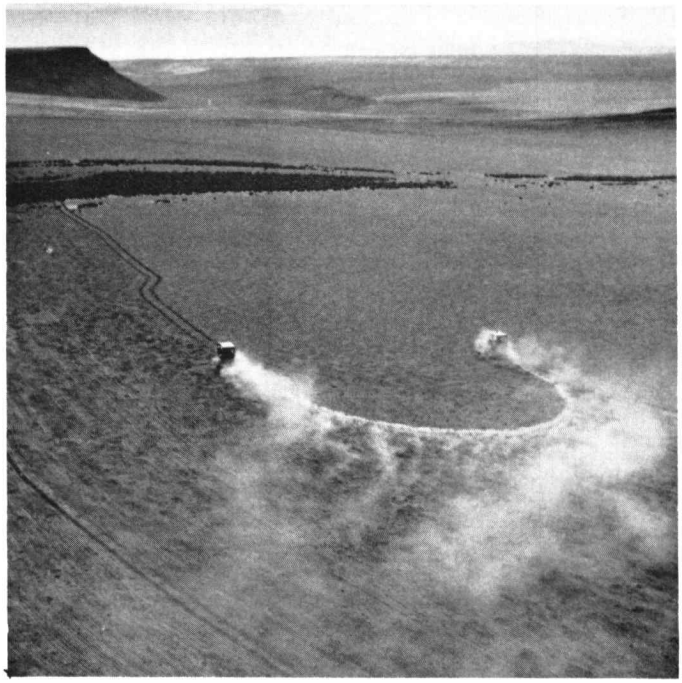
The tractors drag the drills down a long skirmish line, etching the pattern of furrows behind them as they go around miles-along swaths.

Work Days Are Long

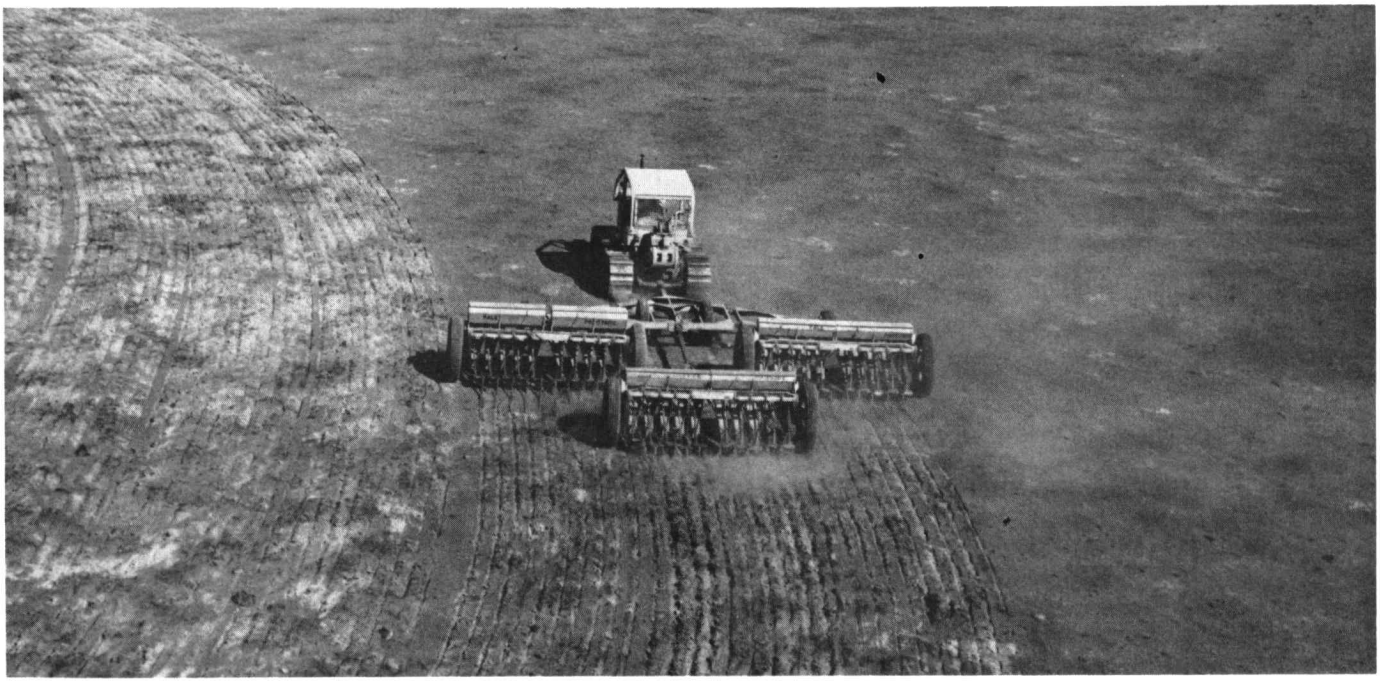
The crews are working ten-hour days, six days a week, and the mechanics work into the night to keep the equipment running.

The operations camp is housing and feeding a crew of 20 operating and maintaining the equipment. The camp's dusty environment more than demonstrates the reason for the entire project as whirlwinds whip dust columns from the nearby burn.

But everyone is of one mind. Get the job done. Get grass back on the land. Hold the soil.



Tractors pull ship's anchor chain across burned rangeland which has been seeded from the air. Chain buries seed about one inch deep.



Rangeland drills, three in tandem, are discing, seeding and covering seed in fire rehabilitation project.

Communications:

You and the Information and Education Committee

M.J. Samuel

"Remember our goals this year—more members and more publicity." Which of SRM's 36 President said that? It could have been any or all of them, and it may have been, but this particular quote was from Danny Freeman in 1956. This presentation is concerned with the latter, "more publicity."

The Handbook for the Information and Education Committee contains the following statements in the Introduction: "SRM needs to continuously strive to inform its membership and the public. . .," ". . . develop and disseminate information. . ." and ". . . broaden Society exposure and recognition. . . ." We're talking about COMMUNICATIONS, internal and external communications. For INTERNAL communications we have *Rangelands*. Columns by the Society officers inform you of Society happenings. Your Section lets you know what is happening in your Section newsletter. You, as a SRM member, need to be involved in communications. You are not a part of this communication if you don't read your Society's efforts to communicate with you.

There are things you, the SRM member, can do to improve communications. Submit items to your Section's newsletter. (That applause, cheering, and stomping of feet is the agreement from your newsletter editor.) You say you have nothing for the newsletter! Are you dead? If so, that's news! Everyone is doing something or has seen someone else's work in range management that would interest other members of the Section. Send in notices when members receive SRM or other awards. Submit items on students, new members, range-related events, and obituaries. The calendar of events in newsletters shouldn't be limited to SRM activities.

What would a newsletter editor like to say to you? There are some disadvantages to the job ". . . causing one to ulcerate at the thought of producing a newsletter." What brought about that discouraging comment? It might be because that editor was always having to "pry information from . . ." or ". . . beg for information . . ."

Bob Gartner had a lot to say upon stepping down after 15 years of editing the South Dakota Section Newsletter (No. 83-4, Fall 1983). He suggested that, in addition to the editor, a Section should have a newsletter committee. One member of the committee should manage the advertising, from soliciting to billing. Other members should be reporters who would periodically, *but regularly,* supply informative material. These members would be hand picked because of their interest and ability. They should represent the different vocations of the members, such as any and/or all of the various agencies, institutions, and ranching interests.

Tour Organizers and Nominating and Annual Meeting Committee members also should consider themselves as unappointed members of the Newsletter Committee. These committees need to plan their work so that pertinent information will reach the editor before newsletter deadlines. Late information may mean the expense of an additional mailing.

What about YOU? YOU still need to submit information and help even before you're asked. The editor can't be expected to know everything that is going on. Remember, your editor has other things to do, like a full-time job and a personal life.

Our most important concern should be with EXTERNAL communications. Why and what should we communicate? According to G.W. Belsey, a public relations specialist who originated Woodsy Owl and who is now with the Public Service Council, we need to "spend our time doing one thing: arriving at a consensus on one or two specific points that are important, interesting, believable, challenging and so easily understood that they have the potential of making your publics change their attitudes and also have the potential of influencing your publics to take actions that will be favorable to your interest." We need to "inform and motivate the public to support the highest feasible level of management on each acre of rangeland regardless of its use or ownership." When we communicate with the general public, we're informing them. We're trying to get them to understand what rangeland is and why rangeland is important to them. We're not trying to make them range managers. We are not educating them. The Information and Education Committee is really a Communications Committee.

How do we communicate? The Information and Education Committee has developed a Guide for Working with the Media. Everyone can benefit from its use. This Guide outlines the steps needed to work with the media, ideas for writing releases for the media, the format which will be acceptable, and other items. We must know what we are doing. Read the guidelines, then actively get involved to help build good media relationships.

This work is not limited to Information and Education Committee members. The Information and Education committee can't do it all. The committee can only disseminate available information. The officers and all Section members must send correct and accurate information so that news releases, or other appropriate information, can be developed. Everyone needs to know what kinds of information is needed.

What kind of publicity can a Section generate? This is limited only by the imagination and time a person or group of persons is willing to invest. Following are three examples of

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Editor's Note: This paper was presented in the Information and Education Symposium at the 37th Annual Meeting at Rapid City, S. Dak., Feb. 1984. M. Samuel is past chairman of the I & E Committee.

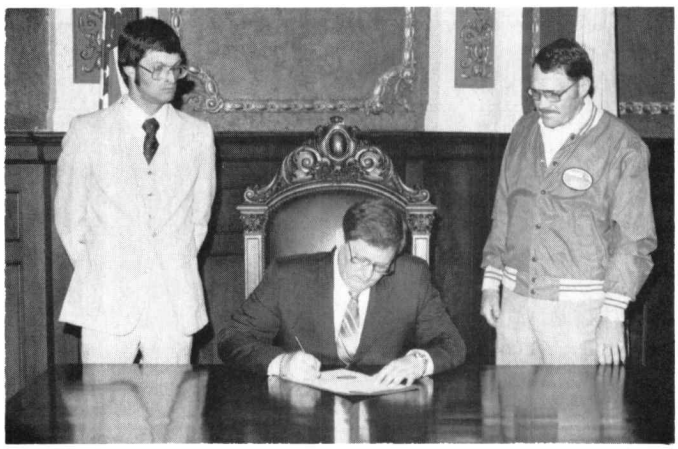
ways of communicating.

A Section should routinely send out press releases to announce the winners of SRM awards, election of officers, and scholarship winners within the Section or state. If a person receives an award, it is only going to be interesting to people who know the person. The first two paragraphs of a release must contain the answers to the questions: WHO? WHAT? WHERE? WHEN? and WHY? Start the first sentence of the release with information which will catch the attention of the audience. You must know the audience and the style of a particular outlet. Direct contact with media people is important. If a press release is sent to more than one outlet, it may need to be written differently for each outlet.

Another example is to arrange for the Governor of the state or province to proclaim a "Range Management Month (Week/Day)". This must be a state function. Try to get agencies and other organizations involved. First you will need to develop a proclamation text which is tailored to your state or province. The first part of the proclamation could contain such facts as: the ranking of range-related industries in the state; the percentage of the state which is rangeland; and the importance of such rangeland resources and uses as wildlife habitat, water supply, and recreation.

Pick a month (week/day) when there will be Section or other range management activities that will complement the publicity. If possible, avoid conflicts with other agricultural activities. South Dakota Section found that June was Dairy month and the media were reluctant to publicize another agricultural event. Find a good date and make it an annual event.

Here is how you might arrange for the declaration of a Range Management date. Contact a staff member in the Governor's office who has responsibility for special events or, preferably, someone who has expressed an interest in range management in the past. Follow this first contact with a letter to the Governor and a copy of the wording for the proclamation. If the request is granted, arrange for Section officers to be present when the Governor signs the proclamation. The Governor's office usually selects the date for signing. Select alternate Section members in case of conflicts. Use Section members from different parts of the state, if possible. More hometown newspapers are likely to use the story if it involves a local person. Make sure there will be someone to take photos. In some states the Governor's office will do this. Know ahead of time how many prints you will need and who will distribute them. Write press releases specifically for the different outlets.



Governor Bill Janklow has proclaimed August 1984 as Range Management Month in South Dakota. With the Governor are Jim Ridler, Gettysburg, and 1983 Rangeman of the year, Hugh Maize, Lebanon, South Dakota.

Another example could be to publish a state brochure. A brochure has only one real purpose: information. Make your brochure fit that purpose. There is no such thing as an all purpose bruchure. Consider that the life-span of this brochure will be only 2 to 3 years when you are writing it. Strive for an 8 to 10th grade reading level to assure clarity and understanding. Consider the time and expense required to produce this brochure. Will the Section be able to distribute the brochure to justify the expense? A brochure may not be for every Section. You need to include the name, address and phone number of a contact person. Do not list officers because the brochure will only be good for their term of office. The Texas Section brochure uses the Denver office as the contact. Denver then forwards inquiries to Texas.

If you're sitting in your chair without any ideas on what you can do to help communicate in SRM, one of us hasn't been communicating! YOU need to help. Only YOU can make sure that *"Rangelands can be Forever"*. ●

MOVING? Please try to give us four weeks notice. Send your present address label and this form to Society for Range Management
2760 W. 5th Ave.
Denver, Colo. 80204

Name .....
New Address .....
City .....
State ..... **Zip** .....

ATTACH OLD ADDRESS LABEL HERE

Current Literature of Range Management

This section has the objective of alerting SRM members and other readers of *Rangelands* of the availability of new, useful literature being published on applied range management. Readers are requested to suggest literature items—and preferably also contribute single copies—for including in this section in subsequent issues. Personal copies should be requested from the respective publisher or senior author (address shown in parentheses for each citation).

Adjusting and Forecasting Herbage Yields in the Intermountain Big Sagebrush Region of the Steppe Province; by Forrest Sneva and C.M. Britton; 1983; Ore. Agric. Expt. Sta. Bul. 659; 61 p. (Bulletin Room, Agric. Expt. Sta., Corvallis, Ore. 97331) A reassessment of the precipitation-herbage yield relationship within the sagebrush-bunchgrass zone in the Pacific Northwest.

Annual Grassland Ecosystem Model; by Dennis F. Pendleton, John W. Menke, William A. Williams, and Robert G. Woodmansee; 1982; Hilgardia 51(1):1-44. (Agric. Sci. Pub., Univ. of Calif., Berkeley, Cal. 94720) A Modeling effort to simulate seasonal dynamics of biomass in a representative annual grassland ecosystem and thereby facilitate the organization of diverse information on the annual grassland and test hypotheses relative to it.

Cow and Calif Performance and Productivity of Improved Mountain Pastures in Carolina; by J.C. Burns, R.W. Harvey, D.F. Tugman, F.G. Giesbrecht, et al.; 1984; N. Car. Agric. Res. Serv. Bul. 466; 18 p. (Bulletin Room, N. Carl. Agric. Res. Serv., Raleigh, N. Car. 27650) Summarized research on the grazing potential of improved mountain pasture for cow-calf operations along with management recommendations.

Economics of Renovating Mountain Hay Meadows: by J.J. Jacobs; 1983; Proc. Intern. Grassland Cong. 14:836-838. (Dept. Agric. Econ., Univ. of Wyo., Laramie, Wyo. 82071) Evaluated the alternative methods of improving meadow hay production and the economic feasiblity of the different methods.

Effectiveness and Safety of Translocated Herbicides Applied to Pasture Weeds with a Rope-Wick Applicator; by E.J. Peters; 1983; Proc. Intern. Grassland Cong. 14:553-555. (USDA, Agric. Res. Serv., Columbia, Mo. 65211) A study to evluate the rope-wick application of selected herbicides in controlling goldenrod in pastures.

Farm Flock Sheep Management Systems; by Jamie L. Kruse, C. Kerry Gee, and Albert G. Madsen; 1984; Colo. Agric. Expt. Sta. Bul. 589S; 11 p. (Bulletin Room, Colo. Agric. Expt. Sta., Fort Collins, Colo. 80521) Assessed the profitability of different management systems for farm flock sheep enterprises with emphasis on lambing dates and its ramifications.

Field Performance of Three Annual Medics; by M.A. Smith and A.A. Baltensperger; 1984; N. Mex. Agric. Expt. Sta. Res. Rep. 525; 4 p. (Bulletin Room, Agric. Expt. Sta., Las Cruces, N. Mex. 88003) Evaluated three black medic accessions and three Australian medic cultivars in comparison with alfalfa and birdsfoot trefoil, for their potential for range and mine spoil revegetation in the Southwest.

Field Tests of Elk/Timber Coordination Guidelines; by L. Jack Lyon; 1984; USDA, For. Serv. Res. Paper INT-325; 10 p. (USDA, Intermtn. Forest & Range Expt. Sta., 507 - 25th St., Ogden, Utah 84401) Elk habitat was evaluated based on different combinations of cover/-forage functions and road models in comparison to pellet group distributions on 11 study sites.

Forage Production and Crude Protein Percentages of Cool-Season Perennial Grasses in Southern New Mexico; by D. Lugg and C. Watson; 1983; N. Mex. Agric. Expt. Sta. Res. Rep. 518; 7 p. (Bulletin Room, Agric. Expt. Sta., Las Cruces, N. Mex. 88003) Compared new cultivars with standard cultivars for tall fescue, orchardgrass, reed canarygrass, and phalaris under irrigation in southern New Mexico.

Goatsrue Eradication: A Realistic Goal; by J.O. Evans; 1984; Utah Sci. 45(1):9-10. (Utah Agric. Expt. Sta., Utah State Univ., Logan, Utah 84322) Evaluates control methods for this introduced weed and considers its eradication from Utah may be possible.

GRAZON ET Herbicide for Control of Honey Mesquite; by Pete W. Jacoby, Jr., and Cecil H. Meadors; 1984; Down to Earth 40(1):7-11. (Dow Chemical U.S.A., Agric. Prod. Dept., Midland, Mich. 48640) Compared triclopyr formulations under field conditions as broadcast sprays for control of honey mesquite.

Legumes for Wildland Plantings; by M.D. Rumbaugh; 1984; Utah Sci. 45(1):22-27. (Utah Agric. Expt. Sta., Utah State Univ., Logan, Utah 84322) A summation of the benefits, adaptations, and species of legumes for including in wildland plantings; considers both common and lesser known legumes.

Longtime Forage Yields of Winter Annual Grasses at Overton, Texas; by L.R. Nelson and Steve Ward; 1984; Texas Agric. Expt. Sta. Prog. Rep. 4188; 7 p. (Mailing Room, Texas Agric. Expt. Sta., College Station, Texas 77843) Compared cultivars of rye, oats, ryegrass, and wheat over a 6-year period; provides alternatives to grazing perennial pastures and rangelands.

Microhistological Techniques for Food Habits Analyses; by Mark K. Johnson, Helen Wofford, and Henry A. Pearson; 1983; USDA, For. Serv. Res. Paper SO-199; 40 p. (USDA, Southern Forest Expt. Sta., New Orleans, La. 70113) Describes specific techniques for use in preparing and quantifying herbivore diet samples for microhistological analyses.

Organization, Costs, and Returns of Cattle and Sheep Ranches in Southeastern New Mexico, 1982; by James R. Gray and John M. Fowler; 1983; N. Mex. Agric. Expt. Sta. Res. Rep. 512; 35 p. (Bulletin Room, Agric. Expt. Sta., Las Cruces, N. Mex. 88003) Utilized typical cow-calf and ewe-lamb ranches of various sizes in making this profitiability study.

Perennial Grasses for Mined Land; by R.E. Ries and E.J. DePuit; 1984; J. Soil & Water 39(1):26-29. (USDA, N. Great Plains Res. Lab., P.O. Box 459, Mandan, N. Dak. 58554) Considers grass species, revegetation methods, and stand management for the Northern Great Plains.

Pocket Gophers in Forest Ecosystems; by Cynthia Lea Teipner, Edward O. Garton, and Lewis Nelson, Jr.; 1983; USDA, For. Serv. Gen. Tech. Rep. INT-154; 53 p. (USDA, Intermtn. For. & Range Expt. Sta., 507 - 25th St., Ogden, Utah 84401) A state-of-the-knowledge report on gopher biology, ecology, damage, and control, with emphasis on northwestern forest environments including rangelands.

Compiled by John F. Vallentine, Professor of Range Science, Brigham Young University, Provo, Utah 84602.

Preventing Livestock Deaths from Blue-Green Algae Poisoning; by Wayne W. Carmichael and L. Dwight Schwartz; 1984; USDA Farm. Bul. 2275; 12 p. (USDA, Office of Info., Washington, D.C. 20250) Describes problem situations, problem recognition, and prevention of poisoning from blue-green algae.

Proper Stocking for Short-Duration Grazing; by Michael Ralphs, Mort Kothmann, and Leo Merrill; 1984; Texas Agric. Expt. Sta. Prog. Rep. 4190; 7 p. (Mailing Room, Texas Agric. Expt. Sta., College Station, Texas 77843) Preliminary results from small-scale simulation study on the Edwards Pleateau with emphasis on vegetation and animal diet selection responses.

Range Fertilization in the Sierra Nevada Foothills; by Charles Raguse, John L. Hull, Milton B. Jones, James G. Morris, et al.; 1984; Calif. Agric. 38(5-6):4-6. (Bulletin Room, Agric. Expt. Sta., Berkeley, Calif. 94720) Productivity, livestock utilization, and nitrogen carryover from nitrogen fertilization and clover stimulation through phosphorus-sulfur additions.

Research Highlights—1983: Noxious Brush and Weed Control; Range and Wildlife Management; by Carlton M. Britton and Fred S. Guthery; 1983; Texas Tech Univ., Lubbock Texas (Vol. 14); 61 p. (Texas Tech Univ., Dept. of Range & Wildl. Mgt., P.O. Box 4169, Lubbock, Texas 79409) A consolidated progress report on noxious plant control and subsequent management of Texas rangelands.

Responses of Elk, Mule Deer, Cattle, and Vegetation to Burning, Spraying, and Chaining of Gambel Oak Rangeland; by Roland C. Kufeld; 1983; Colo. Div. Wildl. Tech. Pub. 34; 47 p. (Colo. Div. Wildl., Research Center Lib., 317 W. Prospect, Fort Collins, Colo. 80526; $1.00) A long-term study on the manipulation of Gambel oak rangelands near Collbran, Colo., on Hightower Mtn.

Seeding Results of Selected Range Forage Materials; by John H. Brock, Harold T. Wiedemann, and Charles E. Fisher; 1984; Texas Agric. Expt. Sta. Misc. Pub. 1542; 4 p. (Mailing Room, Texas Agric. Expt. Sta., College Station, Texas 77843) Plant materials were screened in central Texas for consistent stand establishment on rangelands under a variety of site situations.

Snakeweed Control with Herbicides; by Kirk C. McDaniel; 1984; N. Mex. Agric. Expt. Sta. Bul. 706; 34 p. (Bulletin Room, Agric. Expt. Sta., Las Cruces, N. Mex. 88003) Compared the relative effectiveness of various herbicides and concentrations and studied the longevity of treatments and the process of broom snakeweed reinvasions.

Toxic Factors in Tall Fescue; by R.W. Hemken, J.A. Jackson, Jr., and J.A. Boling; 1984; J. Anim. Sci. 58(4):1011-1016. (Dept. Anim. Sci., Univ. of Ky., Lexington, Ky. 40546) Reviewed the symptoms, possible causes, and factors that influence the occurrence and severity of fescue toxicity.

Legislative Log

The 98th U.S. Congress continues to struggle with a large and diverse agenda but with limited time considering all of the issues that are pending. Levels of financing, other economic issues, and foreign relations continued to have the most attention. Of the 13 major appropriation bills before Congress, 8 have progressed to various levels of completion; 2 have passed and are awaiting the President's signature. On the whole the appropriation bills are ahead of this date for the past 2 or 3 years. Some observers believe, however, that several agencies will be operating for part of F.Y. 1985 on a continuing resolution, since there are massive budget problems to be resolved.

Proposed Bill	Description of Bill	Status of Bill as of July 11, 1984.
S-663 Senator Armstrong (R) Colorado and others H.R. 3457 Congressman Jones (D) Tennessee	Commonly called Sodbuster Bill. The bill provides that the government shall not subsidize uses of the land which lead to destructive wind or water erosion on that land. Large differences between Senate and House bills.	S-663 was passed by the Senate in November 1983. H.R. 3457 was passed by the House in June 1984. One conference has been held. The differences were so large that some observers believe there will be no further conferences. Some people believe the issue will be dealt with in the 1985 Farm Bill.
S-27 and H.R. 999	American Conservation Corps. Bill is patterned after the 1930's Civilian Conservation Corps (CCC). Bill is to be supervised by U.S. Department of Interior. Enrollees will be divided so that one third go to the Department of Interior, one third to Department of Agriculture, and one third to the States.	Bill passed the House March 1, 1983, with a vote of 301-87. The bill was scheduled for the Senate in June but the Senate adjourned before action could be taken. It is now scheduled for action after July 23, when Congress convenes. The levels of financing differ greatly. Although the bill is expected to pass, the conference will need to resolve major differences.

Wilderness Bills:

Over 25 separate wilderness bills affecting 17 states are currently being considered by Congress and more are expected . Most bills are similar to previously agreed on acreages and boundaries, most of which were outlined in the Rare II report some time ago. The President has already signed several wilderness bills as passed by the present Congress.

Grazing Workshops:

The Senate Energy and Natural Resource and the House Interior and Related Agency committees have asked the Congressional Research Service to hold workshops on range issues. The workshops will be held for 2 or 3 days in early September and early October. The Congressional Research Service (CRS) will be interested in hearing about the Stewardship Program, use of grazing boards, Cooperative Management Agreements (CMA's), Wild Horse and Burro Management, range use fees, riparian management, and any other range issues. The CRS objective will be to hold informal discussions to seek solutions to range use problems.

Soil Stewardship Week:

The national award for Outstanding Conservation Activity, presented annually by the Natural Resources Council of America (NRCA), was presented to NACD on May 17 for its 30-year sponsorship of Soil Stewardship Week. This annual activity was recognized "for its effectiveness in communicating nationwide the importance to society of conservation and land stewardship."

During the week of May 27 to June 3, men and women in districts all over America came together in their churches or other community places to observe Soil Stewardship Week. Newsletters, radio announcements and other media carried stewardship messages. Since 1955, 30 years ago, NACD has sponsored this week as a way to direct our attention to the fundamental reasons why we should protect our soil and water resources.

We depend on the land for our food, our shelter, our clothing—all that we have. Yet, as the year's soil stewardship booklet points out, we may all too easily lose sight of that connection and then fail to value the land itself. Especially this may be so if we live away from the places where the food we eat is grown or where the fibers that make up much of our clothing is harvested.—May 22, Tuesday Newsletter by NACD.

Conservation Reserve Retires 264,000 Acres:

More than a quarter million acres of highly erodible land will be retired from crop production for five to ten years by growers who signed up for the 1984 USDA conservation reserve program. Under the program, the government will provide 90% of the cost for planting of grass or trees rather than crops on highly erodible land. This program "will give USDA and the Congress a chance to evaluate the willingness of farmers and other landowners to make a long-term commitment to retire highly erodible cropland," said Secretary of Agriculture **John R. Block.** "The subject also must be addressed in the 1985 farm bill. We must seriously question the extent to which farm commodity and credit programs sometimes encourage row-crop production on highly erodible lands," he said.—May 8—Tuesday *Newsletter* by NACD

Environmentalists Sue on CMA's:

Environmentalists filed a major lawsuit earlier this month, challenging BLM's authority to let ranchers manage their own leases and permits.

The suit asks a federal court to enjoin the Interior Department from implementing cooperative management agreements (CMA). BLM has already begun awarding CMA's and expects to complete as many as 88 in this fiscal year.

Leading the charge for environmentalists is the Natural Resources Defense Council, which has been attacking BLM's range policies for more than a decade. NRDC's latest suit was filed May 9 and is being heard by Judge Raul Ramirez of the U.S. District Court for Eastern California.—*Public Land News*

Grazing lands: Learning by Playing:

An educational program on the ecology and management of grazing lands has been produced by Montana State University in conjunction with several state and federal agencies and the National Cattleman's Association.The package, designed for community and school groups, consists of resource materials, workshop plans, instructor training, and a grazing land management simulator.

The simulator is a computer activity in which participants learn to balance food and fiber production with conservation. Economic and environmental consequences are projected, based on the user's decisions. The simulator may also operate as a game in which three independent ranches are created for users to match their management strategies.

Displays on the computer show impacts of decisions on livestock and wildlife numbers, percent use, range trend and vegetation rating, quantity and quality of runoff water, and animal health and reproductive capability. Management options include hay production and feeding, hunting, weed and brush management, seeding, and fencing.—May-June 1984 *Journal of Soil and Water Conservation.*

Nominations for 1986 Honor Awards

It is now time to sit down and spend a few minutes submitting your nomination of a worthy individual for an Honor Award to be presented at the 1986 Annual Winter Meeting of SRM. All nominations must be submitted a year or more in advance.

There are three kinds of awards presented each year. These are the Renner Award, the Fellow Award, and that given for Outstanding Achievement.

Procedures and Nomination Format are provided in this issue for your guidance in making nominations. Be sure to study the criteria by which each candidate is judged. Then sit down, fill out the criteria and submit to: **Ronald E. Sosebee, Department of Range & Wildlife Management, Texas Tech University, Lubbock, Texas 79409.**

Procedures and Format For Nomination Honor Awards Committee Society for Range Management

Instructions to Nominators:

a. It is the responsibility of the person or Section Awards Committee making the nomination to furnish all supporting documentation to the SRM Honor Awards Committee. It is important that the information submitted be complete and follow the format given below so that the Committee can make a fair evaluation of it.

b. Make sure you are nominating your candidate for the correct award and that the information furnished clearly shows the candidate's qualifications for meeting the criteria of the award. The Fellow Award is given to SRM members (10 years or more) who have performed exceptional *service to SRM and its programs* which is widely effective and generally recognized throughout the Society. The Outstanding Achievement Award is given to individuals or groups whose contributions or careers have become *eminently noteworthy* in the advancement of the science and art of range related resource management. Candidates for this award do not have to be SRM members. The Renner Award is the highest award given by SRM. Qualifications for it are similar to the Outstanding Achievement Award except that emphasis is placed on *current contributions* (last 5 years). Additional information on criteria is contained in the Honor Awards Handbook which may be obtained upon request from the SRM Executive Vice-president.

c. Not all categories of information requested below will apply equally to all nominees or to all awards. Item *i* is particularly important for the Fellow Award, item *k* for the Renner Award. Items *a-e* may be more important for scientists or teachers, while *f-j* may assume more importance for ranchers or businessman. Item *l* is especially important for all nominations.

d. Nominations complete with all supporting documentation received by the Awards Committee **prior to January 1** will be considered at the following Annual Winter Meeting in February at which time nominations recommended by the Committee for awards will be presented for Board of Directors approval. Awards approved by the Board will be presented at the next Annual Winter Meeting. Nominations not approved by the Board will be returned to the nominator and will be eligible for re-submission immediately.

Nomination Format

The nomination should follow the following format, with each section clearly labeled:

Title: Nomination of _____ for the _____ Award. (insert nominee and specific award).

Nominee:

a. Name
b. Date and place of birth
c. Address (with zip code)
d. Phone number (with area code)

Nominator:

a. Name
b. Address (with zip code)
c. Phone number (with area code)

Qualifications of Nominee:

a. Education—give major field, institution, and date for any degrees received.
b. Honors and awards received, including membership in honorary societies.
c. Occupational background—summarize employment history giving nature of business or position, date, and locations.
d. Publications related to range management—give complete list.
e. Other education contributions—teaching classes, movies or TV programs, workshops, tours, etc.
f. Development of programs, practices, and/or products for improvement of rangeland resources—give emphasis to planning, coordinating, developing procedures, invention or modification of equipment, etc.
g. Application of programs, practices, and/or products for improvement of rangeland resources—emphasis here should be on successful day-to-day on-the-ground management.
h. Other contributions—may be in field related to nomination.
i. Service to the Society for Range Management—offices held, committee assignments, services rendered, etc. (This is important section for Fellow Award).
j. Service to other organized groups—elected and appointed positions or service to other professional organizations, service cubs, government, churches, 4-H, NRCD, etc.
k. Summary of accomplishments for past five years (for Renner Award nominees only).
l. Evaluation: identify in this section the contributions on which this nomination is based. Explain why the nominee is especially qualified to receive the Award. (This is very important and should be carefully prepared by the nominator).

Society for Range Management Honor Award Recipients

Special Awards

1957	A.W. Sampson	Special Certificate of Merit
1968	John G. Clouston	Citation for Highest Service
1981	W.R. Chapline	Citation for Highest Service

Frederic G. Renner Award

1972	Peter V. Jackson, III
1973	August L. Hormay
1974	Francis T. Colbert
1975	Martin H. Gonzales
1976	A. Perry Plummer
1977	Joseph H. Robertson
1978	C. Wayne Cook
1979	E. William Anderson
1980	Harold F. Heady
1981	Dick Whetsell
1982	Danny Freeman
1983	George Van Dyne
1984	John L. Merrill

Outstanding Achievement Award

1967
W.R. Chapline
J.R. Pechanec
E.J. Dyksterhuis
L.A. Stoddart
Robert S. Campbell

1968
E. William Anderson
Kenneth W. Parker
Frederic G. Renner

1969
B.W. Allred
Evan L. Flory
Harold F. Heady
Clinton Wasser
T.C. Willis

1970
David E. Costello
Martin H. Gonzalez
Alex Johnston
Gerald W. Thomas

1971
Wallace R. Hanson
H.H. Lundin
Elbert H. Reid
M.W. Talbot
Warren C. Whitman

1972
Kling L. Anderson
Marion Clawson
C. Wayne Cook
Reginald M. DeNio
August L. Hormay
Joseph H. Robertson
Robert L. Ross
E.W. Tisdale

1973
Donald N. Hyder
Lyman G. Linger
William G. McGinnies, Sr.
E.H. McIlvain
Charles H. McKinnon

1974
Wilbur F. Currier
A.C. Hull, Jr.
Melvin S. Morris
A. Perry Plummer
Otto J. Wolff

1975
Don L. Huss
S. Clark Martin
Arthur D. Smith
A.H. Walker

1976
Robert W. Harris
Maxwell T. Lieurance
Alastair McLean
L.B. Merrill
John L. Schwendiman
Lee A. Sharp
Sylvester Smoliak

1977
Claude C. Dillon
John D. Freeman
Fred Flitz

1978
John W. Bohning
Richard Eckert
Robert R. Humphry
L.E. Thompson
George VanDyne

1979
D.E. Hutchinson
John Gordan King
Jeff Powell
William H. Stewart

1980
None

1981
Forest Sneva
Sharp Bros.

1982
John F. Hughes
Myron Thomas Wallace

1983
Robert E. Bement
Richard S. Driscoll
Donald A. Jameson
Henry A. Wright

1984
James K. "Tex" Lewis
Billie E. Dahl
Charles E. Fisher
James W. Giltmeir
Ralph S. Cole
Edward P. Cliff
Mont E. Lewis

Fellow Award

1977

Allred, B.W.
Bell, Herschell, M.
Berry, Lester J.
Bredemier, Lorenz F.
Campbell, Robert S.
Chapline, W.R.
Clouston, John G.
Cook, C. Wayne
Cox, Don A.
Dyksterhuis, E.J.
Freeman, John D.
Gonzalez, Martin H.
Heady, Harold F.
Jackson, Peter V. III.
Johnston, Alex
Kessler, Wayne
McGinnies, William G.
McKinnon, Edward A.
Morris, Melvin S.
Pechanec, Joseph F.
Reid, Elbert H.
Renner, Frederic G.
Ross, Robert L.
Tomanek, Gerald W.
Whitman, Warren C.
Valdez, Gilberto

1978

Artz, John L.
Eaman, Tom
Eckert, Richard
Ellison, Lincoln (posthumous)
Fonte, Carl
Gates, Dillard
Hurst, William
Huss, Donald L.
Kennedy, Fred (posthumous)
Kinsinger, Floyd
Leinweber, Charles L.
McIlvain, E.H.
McLean, Alastair
Merkel, Daniel
Parker, Karl
Parker, Ken (Posthumous)
Plummer, Perry A.
Powell, Jeff
Price, Boyd
Sharp, Gerald W. (posthumous)
Thomas, Gerald W.
Tisdale, E.W.
Wasser, Clint H.
Williams, Robert E.

1979

Biswell, Harold H.
Burzlaff, Donald F.
Cassidy, John
Colbert, Elizabeth (Libby)
Currier, W.F.
Freeman, Barry N.
Harris, V.M.
Hoffman, Garlyn O.
Hyder, Donald N.
Hull, A.C.
Johnson, Donald E.
Linger, Lyman
Little, William J.
McKinnon, Charles H.
Merrill John
Poulton, Charles
Riordan, Laurence E.
Smith, A.D.
Schwendiman, John

1980

Bedell, Thomas E.
Jarecki, Charles N.
Polk, D.B.
Smoliak, Sylvester

1981

Bentley, Jay
Gartner, Bob
Hedrick, Don
Larson, Floyd

1982

Harris, Grant
Schmutz, Irvin

1983

Laycock, William A.
Ragsdale, Bob

1984

Hunter, John R.
Martin, S. Clark
Schuster, Joe L.
Waldrip, W.L. (Dub)
Williamson, R.M.

President's Notes

My activities and travels during the first six months of 1984 have convinced me even more that rangelands are much more vital to the welfare of the human race than even range people contend. In fact, too many "range people" narrowly relate range only to livestock grazing. Livestock grazing is and will be the most important use of rangelands for some time. Nonetheless, range management must relate to management of all resources of rangelands. We have allowed our profession to be narrowly identified as only range grazing when we should be identified as resource managers concerned with all products of rangelands.

I am not saying that livestock grazing should be deemphasized. After all, the ruminant animal is the best way to utilize range forage for production of human food. Rangelands are important now as a meat and fiber source, but will be even more important in the next century as the demands for food and fiber increase. Certainly, rangeland is the resource of the future as it becomes more and more important for food, fiber, recreation, and water. By the year 2030 the human population will exceed 7 billion, almost double the present number, yet the earth's 14 billion acres of rangeland will have shrunk considerably. The United States alone expects to lose 67 million acres of rangeland to other uses during that period. The combination of more people to feed and less agricultural land in production will make rangelands the primary base for livestock production. The demand for the use of rangeland for wildlife and recreation will also increase until such a time that red meat, fiber, and water production preempt them in importance.

The Society and the range profession must seek and accept the responsibility of stewardship of the rangeland resource. We must be recognized as the managers of this vital resource. We must recognize that livestock, wildlife, recreation, and water are only commodities while rangeland is the resource base. The range profession must not stand back and do nothing while other commodity groups enjoy public support and increases in funding. We must step forward and take our position as stewards of this vital resource.

The mission of the Society for Range Management and the range profession in the U.S. is to espouse the importance of range as a national resource that must be properly utilized for its products today but conserved for future generations. Without rangelands, upon which the western livestock industry and the wildlife related recreational industry rely, the U.S. would not be the world power it is today. Nor can it maintain its position of strength without properly utilizing and conserving the rangeland base.

Our Society was founded in 1948 to give the range profession status and unity. If you have not done so, read Volume 1, Issue 1 of the *Journal of Range Management*. The need for unity of effort was no greater in 1948 than it is today. The range profession must unite and develop an overall national purpose. We must convince the public and the policy makers that range is a major renewable natural resource without which this nation cannot survive. To be successful, we must broaden our base and include all rangeland commodities in our management schemes. We must develop interdisciplinary approaches to research, teaching, and land management.

The range profession is threatened by our own inaction and lack of national purpose. To survive as a profession and to contribute to society, we must broaden our concepts and principles of range management. We must become total resource managers rather than just livestock/grazing managers. This does not mean abandoning the livestock producer, rather it means broadening the scope of the landowner/manager. Range people, including ranchers, must become more complete multiple-use managers. This requires that we become the driving force and leaders in an interdisciplinary effort in rangeland resource management. It also means that we must be willing to be commodity-oriented. When wildlife and recreation are the most important products, we must be range managers for wildlife and recreation. When livestock is the most important, we must manage for livestock production. In this view, range management training and thinking has been too narrow. Let us be range managers for all of the products and uses of rangeland. Let us be managers for what is most profitable, or in the case of public lands, what is best for society. Ultimately, we must work with other commodity groups as a team. Society can no longer afford several disciplines or commodities going separate competitive ways in managing rangeland resources. The Society for Range Management can be the uniting force if we develop our purpose and become active in its accomplishment.

Two of the most important objectives adopted by the Society for 1984 are: (1) to increase public appreciation of the economic and social benefits of range to society and (2) to increase political activity at the Society and Section levels. It is imperative that we make progress on both of these objectives this year. We must influence our own destiny with action, both in public education and the political arena where policy decisions and resource allocations are made. Our committees are actively working to this end, and I have asked Section presidents to pursue these goals at the Section and Chapter levels. You as an individual member can participate by getting actively involved in letting the general public know of the importance of rangelands and letting your position be known about rangeland policy and legislation.

My job has been made easy by the Denver office staff. Pete Jackson is providing the outreach and leadership we need to be successful. Your officers and committees are actively pursuing the goals set for 1984. I look forward to hearing from you or seeing you at Section meetings throughout the year.—**Joseph L. Schuster,** President, SRM

Executive Vice-President's Report

It's been a busy time since getting home from Australia. Whenever you get behind a little, it's tough to catch up. I had the pleasure of attending the 100th Anniversary of the Montana Stockgrowers Association in Miles City, Mont., a true range country. It's hard to believe that we settled the last of the open range nearly a century ago. Incidentally, SRM was well represented at the celebration and our policies were quoted frequently.

SCS Meeting

It's a heck of a note to get prepared to sign up a lot of new members and find out that they all belong. This happened in Wichita, Kans., when our President Joe Schuster and I attended a national conference of Soil Conservation Service range management personnel. Joe and I had them all set up. When he stood up to speak to the group, he said "Everyone who is a member of the Society, please raise your hand." Well, everyone in the room had his or her hand raised. It's a great feeling to be with a group that is that dedicated and professional in the way they consider their careers.

NACD Gathering

President Joe and I also participated in the National Association of Conservation Districts Public Lands Range and Pasture Committee meeting while at Wichita. We have a great deal in common and it's very important to both our groups that we work closely together on a daily basis.

When Joe and I spoke to their group, we both placed strong emphasis on cooperation and joint efforts to solve common problems.

In addition, we invited them to hold a joint session with our Summer Board Meeting, perhaps in 1986 at Jackson, Wyoming.

Great Plains Tour and Meeting

In my efforts to attend a meeting in every Section to introduce myself, I traveled to Brandon, Manitoba, to attend the Summer Tour and Meeting of the Northern Great Plains Section. It was a great meeting in a beautiful country. In spite of the distance, there was a large turnout of people, particularly ranchers. With the hard work and planning of Section President Ray Salmon, several new members will be joining SRM simply because they were impressed with our objectives and organization.

Looking to 1985

I had a good opportunity to work with First Vice President Ed McKinnon as we rode to the meeting together and discussed his plans for his turn as president in 1985. I was impressed with the progress he has made already. It appears 1985 will truly be an international year for SRM. We work hard for our members in South America, Africa, and Asia but frankly not hard enough.

Ed has started assembling names for his committee appointments but there is lots of time to contact him and make your desires known. He will try every way to consider everyone who wants to work. A final note—if it's only prestige you want as a committee member, look out. Ed's middle name is Hard Work and he expects everyone to do the same.

In July *JRM*

Speaking of work I was hardly seated at my desk when Pat Smith came in waving several articles from *JRM*. She informed me that they were great papers and every member, especially producers, should read them carefully. Well, if you haven't met Pat you don't know that you have one choice—stop and read the articles— and as usual she is right, they are good and particularly timely in the light of the conflict that seems to constantly swirl around the use of pesticides, herbicides, and chemicals in general.

I'm going to leave the decision on just how good these papers are to you, but please read "Small Mammal Abundance on Native and Improved Foothill Ranges, Utah" and an "Economic Analysis of Black-tailed Prairie Dog Control." If you're a rancher, it's a very real management problem, whether it's brush in the South or prairie dogs and noxious weeds in the Northern areas.

In addition, I suggest you read two other articles in the July *JRM* that pertain to grazing systems, also a hot subject: Karl Wood and Will Blackburn's team effort in "Vegetation and Soil Responses to Cattle Grazing Systems in Texas Rolling Plains" and " Economic Analysis of Two Systems and Three Levels of Grazing on Ponderosa Pine-Brushgrass Range" by Quigley, Skovlin, and Workman.

Grazing Act Celebration

SRM, in the effort to gain exposure and involvement, was happy to be a co-host of a fine celebration and symposium of the 50th anniversary of the Taylor Grazing Act at Grand Junction, Colo. It was well attended by both the old timers and the leaders of the future.

Our Society was well represented with several past presidents presenting major papers and speeches, while other members were session chairmen, etc.

Public Lands Meeting

I also attended the National Public Lands meeting at Grand Junction. The ranchers are having hard financial times these days and it was depressing to hear some of their comments on the future of the industry. Once again it is so important to practice good range management if a person is to survive hard times or adverse weather.

Summer Board of Directors Meeting and Tour

Well planned is the best description that I can give in explaining how our meeting went. I want to thank every member, and especially Chairman Gus McCutchen, of the local planning committee, for a job well done. Every detail was covered and our tour was outstanding.

The attendance was good with the Advisory Council having a two-thirds representation from the Sections and only one Board Member being unable to attend. In addition, a large number of Committee Chairmen, SRM members, and guests were present.

A second pleasure of this trip was the opportunity to stop by and attend the Idaho Section Summer Meeting and Tour. Second Vice President Fee Busby and I spent two days with those fine folks and enjoyed every minute of it while getting a great deal of business discussed, particularly the 1987 Annual Meeting that is scheduled at Boise, Idaho, in the Red Lion Riverside.

So much business was covered that I will not try to explain it all at this time, but a review of actions will be in the next issue of *Rangelands* for your information. However, there are three items which I feel need to be brought to your attention right way.

First of all, I was requested by the Board to announce again our 1985 dues increase of $5.00. This increase is badly needed if we are to continue the level of activity that our Society operates at. I feel it is important to note that this is the first increase in five years, which I think speaks well for the fiscal management of our officers and staff in light of the economic situation of the past five years..

Secondly, the good response on our new Commercial Membership category was discussed. Both the Advisory Council and the Membership Committee spent a great deal of time at the Wenatchee meeting on this subject. The upshot of the debate was an Advisory Council action, which subsequently received unanimous approval from the Board, that twenty percent of the first year's dues and ten percent (up to $200) of the second year's dues for each Commercial Membership would be rebated to the Section obtaining the membership. It was the opinion of both the Board and the Council that this would act as a good incentive to the Sections to solicit these people as active members.

This action means that any Commercial Membership dated after July 18, 1984, will be duly credited and funds remitted to the appropriate Section for their use. It was suggested, however, that these rebates might best be used to the advantage of all concerned if they were spent to place advertisements in Section Newsletters for the respective Commercial Member.

I am personally delighted with the action of the Board on this matter. I predict that a large number of these Commercial Memberships will be arriving in the Denver Office in the near future, which will be a benefit to us all.

Third, it is with great pleasure that I can announce the roster of candidates for our 1985 election. For Second Vice President, Jack R. Miller of San Francisco, California, and Gary K. Westmoreland of Troy, Texas, were selected as candidates. Both of these men are known widely in our Society and I am sure would serve well.

For Director, there are four candidates selected to fill two three-year terms on the SRM Board. These are: Jack Cutshall of Alexandria, Louisiana; Rex Cleary of Susanville, California; Herb Fisser of Laramie, Wyoming; and, Robert L. (Bob) Ross of Bozeman, Montana. All of these men are also widely known and will serve the Society well.

Please read the material that will be published both on your ballot and in the October issue of *Rangelands* describing the accomplishments and background of these candidates. In addition, there will be statements prepared by each of them stating their views and positions regarding the future of our Society.

Without question this is a superb slate of candidates. We all need to look carefully at each for they will be responsible for helping set the direction of the SRM for the years to come.

This report is too long again and again thank you all for your patience. Please keep in touch and by all means, if you're in the Denver area, come to the office. We all need and enjoy your visits.—**Peter V. Jackson,** Executive Vice-President, SRM.

Frasier's Philosophy

The past June 28th represented the 50th Anniversary of the passage of the Taylor Grazing Act, which in many ways was the start of management of public lands. To honor this event we have dedicated this issue of *Rangelands* to articles concerned with the management of the public lands. Several of the stories are of successful approaches and it would be my hope that there are many more similar untold ones. I think that they do show that it is possible to properly manage our public lands for the benefit of all.

We presently have sufficient articles to complete all issues for 1984. This does not mean that I will not or do not want new articles. It takes an average of 3 months from the time of submission to obtaining the final version of a paper. This coupled with the two-month lead time for each issue means that I must have articles about 6 months in advance. I would hope that all members will be alert for potential papers.

I recently purchased a small home computer and the first thing I learned was:

To err is human, but to really foul things up requires a computer.—Murphy's Law, Book Two

Editorial Comment:
Readers of *Rangelands* should realize that to improve the readability and to save space it is sometimes necessary to take liberties that are not normally allowed in a highly technical publication such as the *Journal of Range Management.* This does not mean that the quality of the papers in *Rangelands* is diminished or that they are mere ramblings of the authors. All papers receive a critical peer review prior to publication. This includes insuring the validity of the facts and background information such as references. Many times it is requested that some of the background information or references be deleted from the paper to improve the readability. Authors are glad to provide this or any additional material to anyone who would request it.

Oklahoma Team Tops in Pasture Range Judging

The Pasture and Range Judging team from South Caddo Conservation District in Anadarko, Oklahoma, took first place honors in the National Pasture and Range Judging Contest in Oklahoma this year. Over 800 contestants from 35 states took part in the contest, which has been an annual event since 1955.

Teams need to know their conservation facts to come out winners. First, they judge range sites to determine main forage plants for livestock, the range condition, and the sort of plant that would take over it overgrazing happened. Secondly, they judge four pasture fields for soil type, texture, permeability; slope; amount of erosion; soil surface runoff; the major factors which keep the land out of Class I; the kind of plants recommended for the land; and the fertilizer and management practices which keep the land in good condition.

The 1985 Annual Meeting of the Society for Range Management returns to Salt Lake City, Utah February 9 to 15, 1985

Photo: Utah Woolgrowers Association

The first meeting of the ASRM took place in 1948 in Salt Lake City. Now, 37 years later, we return to Salt Lake as an international society to celebrate our founding and look to the exciting future.

Range—A Vital Resource
Then in '48—Now in '85

POSITION ANNOUNCEMENT
Faculty Position in Range Management
Department of Forestry and Resource Management
University of California, Berkeley

Position—The position can be filled at the Assistant or Associate Professor level, depending on the qualifications of the individual selected. Appointment will be half in teaching and half in research on an 11 month basis.

Qualifications—Applicants must have a Ph.D. degree in Range Management or a closely related field. Preference will be given to individuals with expertise in the assessment and management of rangeland ecosystems. Experience in dealing with land management agencies is desirable. Doctoral candidates expecting to complete degree requirements by July 1, 1985 are encouraged to apply.

Responsibilities— a) Teach an undergraduate course in Principles of Range Management and a graduate course in Rangeland Ecosystem Measurement and Analysis. Share responsibilities as advisor for undergraduate and graduate students in Range Management. Supervise graduate student research. b) Initiate and direct original research in the area of management of rangeland ecosystems. Develop techniques for measurement and analysis of rangeland ecosystems for different resource values. Work closely with land management agencies and other resource managers.

Appointment—Appointment to begin July 1, 1985 or as soon thereafter that a suitable applicant is found.

Applications—Send resume, academic transcripts, and the names of at least three references to Chairman, Range Management Search Committee, 145 Mulford Hall, University of California, Berkeley, CA 94720. Deadline for applications is November 1, 1984.

The University of California Is an Equal Opportunity, Affirmative Action Employer

Assistant Profesor Range Science. Ph.D in Range Science or closely allied area for nine-month, tenure-track teaching position in Range Management, Range Ecology and Range Plants. Summer contract dependent upon institutional need. Secondary teaching area of general agronomy or agricultural economics desirable. Individual research encouraged—2,000 acres of university range and pasture available. Previous teaching and student advising preferred. Send resume and request for application form to *Tarleton State University, W.H. Newton, Head, Department of Agriculture, Stephenville, TX 76402. (817) 968-9222.* Closing September 15, 1984.

Graduate Research Assistantship. Position is available immediately to work towards a Masters Degree. Research will include plant establishment and low maintenance landscaping in saline, sodic soils in a desert environment and begins fall or winter 1984. Contact *Dr. Ted R. Knous, Plant Science Department, College of Agriculture, University of Nevada Reno, Reno, Nevada 89557-0004 (Ph. 702-7848-6911).*

Branch Station Head

Kansas State University seeks a Head for the Fort Hays Branch Experiment Station. The Fort Hays Station is one of the oldest, largest, and most prestigious off-campus agriculture research institutions. Ten faculty and over 30 support staff conduct research in the following areas: genetic improvement of wheat, sorghum, pearl millet, and sunflowers; plant pathology; entomology; dry land soil management; weed science; range management; and beef cattle. The Head provides research leadership and is responsible for personnel, budget, facilities, and public relations. The Head reports to the office of the Director of the Kansas Agricultural Experiment Station. A Ph.D. in an agricultural or closely related science is required. Demonstrated administrative and research ability are preferred. Deadline for application is October 8, 1984. Nominations are also invited. Interested persons should submit a letter of application, transcripts, personal vita, and names of four references to: Dr. George Ham, Chairman of the Search Committee, Department of Agronomy, Throckmorton Hall, Kansas State University, Manhattan KS 66506.

KANSAS STATE UNIVERSITY IS AN EQUAL OPPORTUNITY EMPLOYER

Cattle Ranch Planning Manual

By: *John F. Vallentine* (Range Science)
R. Phil Shumway (Animal Science)
Sydney C. James (Agricultural Economics)

Available from the publisher:
Brigham Young University Press
Provo, Utah 84602

327 p.; 8 1/2 × 11 in.; looseleaf (w/o binder)
Price $19.95 (20% discount on multiple orders)

Use as syllabus for course in ranch or rangeland planning or field application by ranchers, consultants, or agribusiness representatives.

Divided into two main sections: procedures and illustrations for ranch planning (including a Bar X example) and supplemental references.

Includes one set of 32 worksheets for use with the manual.

ACI Workshop

Association for Conservation Information (ACI) Winter Workshop is scheduled for January 21-24, 1985. Holidome, Manhattan, Kansas. Contact: I & E Division, Kansas Fish and Game Commission, Pratt, Kansas 67124. (316) 672-5911.

Requiescat in Pace

Lyman G. Linger, SRM Director, 1975-1977, died of cancer in Loveland, Colorado, June 21, 1984.

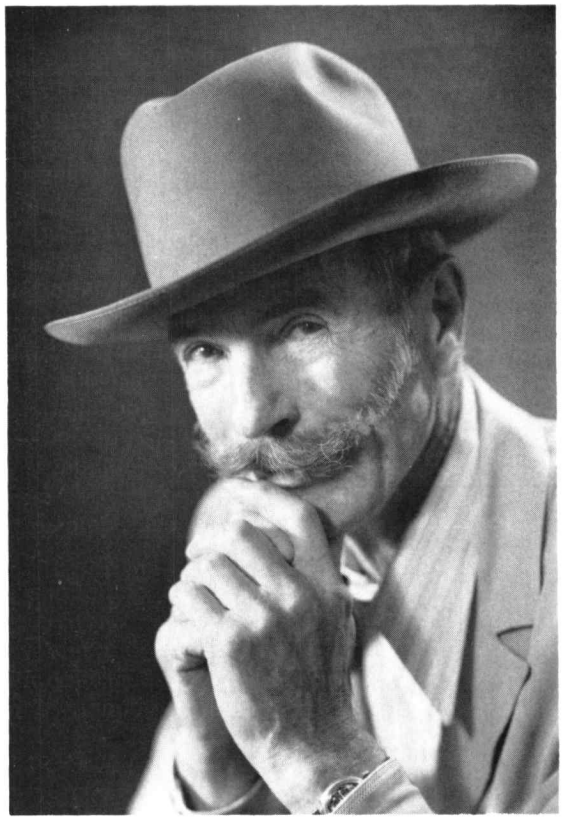
Lyman came from a pioneer-landmark ranching family and he was a model of Western Americana. Lyman's father was ranching in North Park when he was born in Denver in 1908. Later the family moved to a ranch in southern New Mexico near the Jornada del Muerto, then back to the San Luis Valley, where the family operated a 100,000-acre ranch at the edge of the Sand Dunes National Monument. Following sale of that ranch in 1946, Lyman purchased his Rattlesnake Park Ranch, near Loveland, Colorado, comprised mostly of foothill and mountain rangelands with small acreages of interspersed hay bottoms and old fields. During the next 35 years he developed this ranch into a conservation showplace as well as a successful working cow-calf-yearling operation. Lyman said in a 1957 *JRM* article, "Although I saw the value of education, the ranch came first. I did spend the most of three years at Colorado College and two years at Colorado State University."

Lyman was an early loyal member of the Society for Range Management, became President of the Colorado Section in 1963, received the Section's Trail Boss Award for outstanding service in 1969, and served as an elected Director, 1975-1977. He was an active cooperator in the Big Thompson Soil Conservation Service District, co-chairman of the Range Research Committee of Colorado Association of Soil Conservation Districts, a member of the Advisory Council and Grazing Advisory Board of the Roosevelt National Forest, and a member of the Colorado Cattlemen's Association in which he helped to organize and served on the Range Improvement Committee. For many years he was a member of the Executive Committee of the American National Cattlemen's Association.

Lyman wrote in *Rangeman's News* that he felt the Society "should continue to strive to increase rancher participation" "be involved in matters that affect the range livestock industry", and "direct our efforts to minimize conflicts on multiple use rangeland."

Lyman and Nelda, his widow, shared widely the ranch's features and their resource management ideas with natural-resource educators, researchers, and policymakers. The ranch was the subject for a Lederle film, "The National Western Stockshow." The ranch and associated forest ranges were a part of a U.S. Forest Service special study of range condition standards. They assisted the Range Science department of Colorado State University in developing a range Ecosystem education program for youth.

A Lyman Linger Scholarship has been created by the Linger family. Memorials may be sent to Society for Range Management 2760 W. Fifth Ave., Denver, CO 80204. Mrs. Linger resides at 1308 W. Range Dr., Loveland, CO 80537.



His ashes were interred on his beloved ranch following a memorial service presided over by a step-daughter, Rev. Dane Packard, at the First Congregational Church in Loveland, Colo. Many SRM members attended the service, which was as distinctive as Lyman himself. He had become interested in Indian thought and philosophy and the service reflected this interest, containing thoughts and prayers of several Indian tribes.

One quotation from the service follows—a song fragment from the Santa Domingo Pueblo Indians as translated by Frances Densmore:

All the white-cloud eagles—
Lift me up with your wings.
Take me to the entrance to the earth,
All you eagles,
Lift me up with your wings,
Lift me high over the world.
Let no one see where you are taking me
far to the southwest
where our fathers and mothers have gone (before me);
Take me there with your wings,
Place me there with your wings.

Grass. Stirrup-high and far as the eye could see. That's the way it was. That's the way it can be.

When the first ranchers pioneered Texas and Oklahoma they were greeted by grassland. Ranging for miles and waving a welcome to the strong-spirited ranchers and their grazing herds.

When the land was all taken, it was not all taken care of. It was fenced and overgrazed. It was parched by the dry years, and invaded by deep-rooted and "drouthy" brush. Brush destined to invade nearly every ranch, and to cut in half the grazing potential of over 88 million acres.

But there's a new pioneer spirit among ranchers today. They want their land back from the brush...and back to its natural beauty and bounty.

And there's a new product that makes it practical. It's Graslan™ from Elanco. Graslan is a new approach to brush control. It's as revolutionary and unique as were three other Elanco products—Tylan® and Rumensin® for your cattle and Treflan® herbicide for soybeans and cotton.

To find out more about brush control with Graslan, talk to your local SCS, Extension Agent or Range Management Specialist. Or call the toll free Elanco hotline: 1-800-428-4441. It could be the most important call you'll make for years to come.

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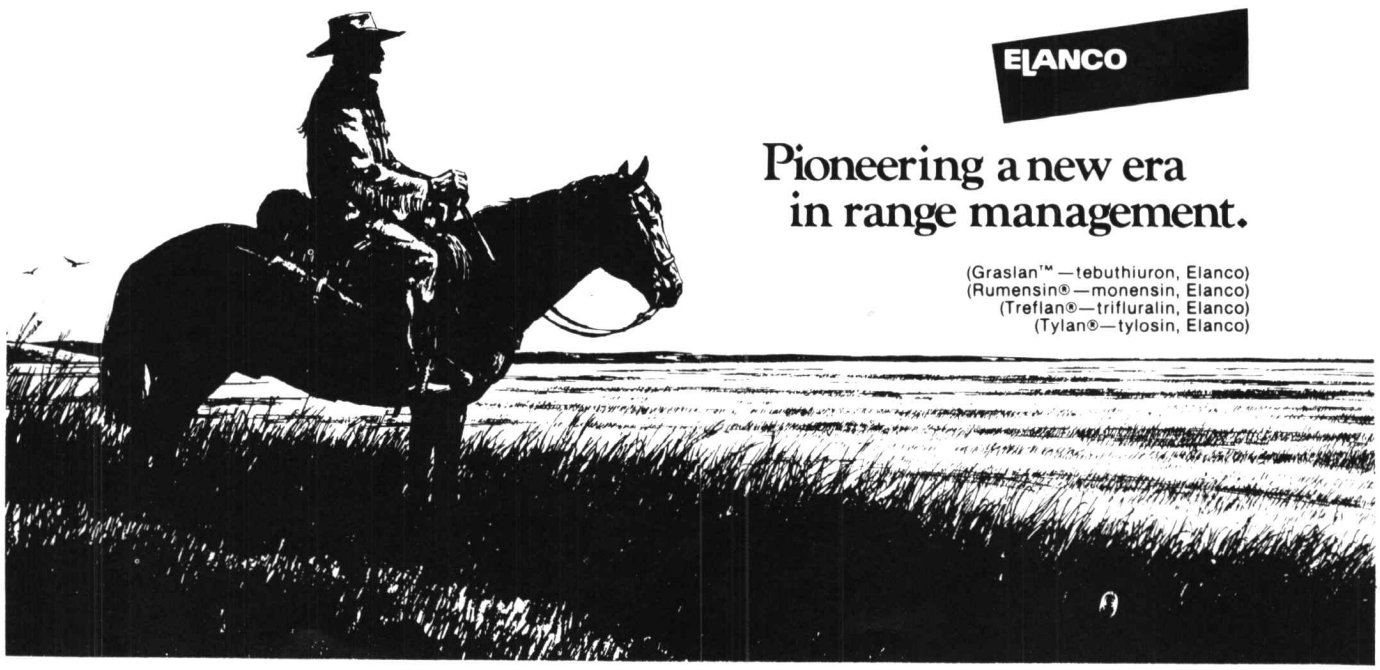

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