What Hope for Grazing on the Public Lands

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Highlight
Ranchers need to modernize their use of public lands or face further restriction. Public range administrators can be of real aid by cooperating to encourage stockmen to improve ranges and adjust to changing times.

The objective of range managers is to maintain or improve production of forage on land which is used to support domestic livestock and big game animals. Yet records show that as management intensity on public lands has increased, total animal production has steadily decreased. Reduced numbers and reduced grazing season for domestic livestock have brought about this decreased production.

Naturally, those who are concerned in maintaining a healthy livestock industry in the West view this trend with alarm. Many are convinced that public land administrators are not interested in livestock grazing as a land use. Others conclude that range management is an ineffective science.

The growing feeling that livestock are discriminated against in multiple-use land planning and that range management is anti-livestock presents serious problems to our science. Nothing could be more unfortunate in our relationship to livestock producers.

Ranchers tend to defend their right to continue to graze public land on the basis of national meat needs, priority of use, moral principle, and the personal hardship which would result from reduction or elimination. Although each of these has a degree of validity, a stronger argument, often overlooked by livestock growers, is that grazing belongs as a part of the multiple use of land and that it can be included without detriment to other legitimate uses. The stockman’s big challenge is to demonstrate the latter point.

Changes in the West

The West is going through a period of rapid transition. As with most people, ranchers have difficulty in accepting new situations. Yet it is basic to maintaining their position on the public land that livestock growers become aware of the inevitable and permanent changes that face them and for which they must prepare.

Early in the history of the West, land was abundant, sparsely occupied by people, and free. The range livestock business was founded upon such conditions. Low costs and large numbers of livestock resulted in profitable ranching. The huge acreages of open, virgin range lands furnished adequate feed, and livestock flourished. But land management and effective care of the animals were at a minimum. During these pioneer times, there was nothing wrong with this. Indeed it is typical of wilderness land occupation. However, conditions of frontier America cannot be maintained forever. Inefficient and exploitative land use cannot continue and it is unreasonable to expect that it will (Table 1).

Figure 1 explains why land practices must change. Since the start of the livestock business in the West, human populations have increased about 3,000 percent. Even more important, in recent years the rate of increase is rising faster each decade. In the future, even more people will want even more land. We cannot ignore these facts.

Meanwhile more land is going into cities, roads, air fields, military installations, and other special uses. People are crowded into smaller and smaller areas (Fig. 2). They have completely occupied all land not reserved by the government. The open range is gone. Free range is gone. People are land-hungry. This demand for land has created an artificial value, beyond economic justification. Because of

Table 1. Acreage and population data for the 11 contiguous western states—the public range states.

<table>
<thead>
<tr>
<th>Year</th>
<th>Population, millions</th>
<th>Acres per person</th>
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<tbody>
<tr>
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<td>0.7</td>
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wild desire to own land, people are increasingly more aware of the value of public land and of their rights to use these lands.

But this is not all. The desire and need to use land is rising more rapidly than population data suggest because today's people work fewer hours per day and fewer days. They have many more retirement years. They have fast highways and fast cars unknown a few decades ago. They are within a few hours of all but the most remote lands. Today most of our population lives in large, crowded cities. Just as the formerly rural population went to the city for an exciting vacation change, modern city people yearn for a vacation in the quiet and peace of wildlands. There is great and increasing demand for parks, wilderness areas, camp grounds, and summer home areas. More people require more water, more game animals, and more areas to fish.

The desire to protect and conserve land has become the interest of people in all walks of life, whereas, but a few years ago, only a handful of conservationists were concerned. This realignment of land values is fast changing people's attitudes toward privileged use of public land by stockmen.

Stockmen seem to feel that government land administrators are somehow to blame for these new demands for land and land products. Actually administrators do not create demand. Demand originates with the public. Changing federal land policy is a product of public demand—not a cause. Most administrators, and especially those born and trained in the West, make an honest effort to keep livestock grazing on the land despite the forces of millions of people demanding other land uses.

**Future of Livestock on Public Land**

There is no need for calamitous talk that changing federal land policy will wipe out the livestock business. True, a change is inevitable, but this need not mean elimination of the industry. But modernization is necessary. What happens in the future is largely up to the rancher.

Adapting to modern conditions will require hard work and reorganization of the thinking of many stockmen. More than anything else, stockmen must change their public image. Too often, ranchers seem to deliberately aggravate public opinion. Many oppose the game hunter, insist on grazing fees below market value, and demand monopolistic rights on the public land. They are inviting deadly opposition.

Stockmen can ill-afford public opposition. They are a minority group. They cannot hope to outvote, outwit, or outpressure people who contest their place on public land. Any continued demand for exclusive rights or any abuse of the grazing privilege will surely increase the area of federal land that is legally reserved for exclusive use for recreation. The only apparent solution to this problem involves an aggressive program of cooperation by stockmen whereby they work with other interests to solve mutual problems on the land.

Of real significance to ranchers is the growing trend toward large wilderness areas, recreation reserves, and national parks which by law may specifically exclude livestock. This appears to be the alternative facing stockmen if they don't learn to live with multiple use. The multiple-use concept is the livestockman's best friend and he should support legislation designed to encourage full and diverse use of public lands. Further, those public agencies whose objectives include multiple use deserve the stockman's support.

Fortunately, cattle and sheep are a part of the public image of the West. Cowboys and livestock are gloriously fabled in novels, movies, television, and ballads. This picture should be preserved by good publicity and cultivation of public interest. Stockmen must show that livestock can be
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An asset to recreation and need not interfere with other land uses. They must show that stock can safely graze watersheds, can live with deer, and be attractive to tourists. They must show that erosion, muddy streams, dirty camp grounds, and bare dusty ground are not necessarily adjuncts to livestock grazing. Too many animals or too much concentration of animals result in disturbance that fires the tourist to anti-livestock activities. Admittedly some concentration is necessary around waterholes, corrals, driveways, and salt grounds, but these concentration areas must be kept away from public roads, fishing streams, lakes, and camp grounds. If the public see livestock damage on the land and develop this image of the livestock industry, the livestock grazing will cease on public lands. Stockmen must realize this. It will not be the case that the stockmen must immediately and hope someone else will prove that multiple use is a venture as unstable as public land management. There is no reason to wait for others to develop the plans. Good range management is the price ranchers must pay for a place on the public lands.

Better Range Administration

The great tragedy of the conflict that seems to have developed between technical land managers and stockmen is that the ranchers are creating in their minds an image of the range manager as an enemy to their cause. Actually, modern range management offers a tremendous wealth of new knowledge that will greatly aid the rancher in his business. The rancher loses if he does not take every opportunity to get help from technical range managers.

But technical people, also, are partly to blame for this impasse. Too many land managers solve range problems by reducing or eliminating livestock. Too many are officious and rely on dictatorial decisions based on bureau policy rather than on-the-ground facts. Unfortunately, many federal land managers who are making important range decisions are trained in other phases of land management and really do not have the technical knowledge to manage ranges in a positive way. The old idea of preserving resources by non-use is no longer acceptable to modern schools of range land management. Anyone who manages land in a negative way by preventing its use is living in the past.

The agency administrator plays a key role in adjusting land uses. It is his obligation to help ranchers make necessary progress. The manager should be proud of his role in increasing productivity of the land and in proving that multiple use is a real and functioning thing rather than a mere slogan. Too often, the impression is given that reducing grazing is an objective in land management.

Improving Range Lands

Ranchers should be able to look forward to increasing rather than decreasing their grazing permits. This can be done on a large majority of our public range if stockmen and administrators really want it done. In 60 years of management on America's public ranges we have not begun to exhaust the possibilities of increasing forage production. We have talked for years about getting this job done. It is time for action. Both stockmen and federal administrators have been slow in putting to use known information about improving ranges.

Fortunately, ranchers have every reason to expect range improvement and better management to benefit them economically. Improvement of ranges, correct grazing intensity, and more careful husbandry of both stock and range can be made to pay. In the face of what we know today about good range management, there can be no excuse for the persistence of some stockmen in overgrazing and abusing land. Modern research shows conclusively that grazing capacity can be increased through range improvement and that with this increased capacity comes more calves and lambs and heavier animals. Ranchers must face the fact that improving ranges requires money and that the stockman must pay his own way. The taxpayer should not be expected to improve ranges for private gain. But, in return, the administrator must meet the stockman half-way by guaranteeing either a reasonable permanency on the land or a reimbursement for lost investment. Otherwise no prudent man can be expected to risk his capital on a venture as unstable as public land permits have been in the past.

Administrators need to realize that, at the present time, many
ranchers do not have access to technical range management knowledge. They need to take time to work with the rancher, explain the problems, and cooperate in working out solutions. A real aid to the stockman would be the encouragement of range improvement as an alternate to reducing numbers. A rancher given sufficient warning about impending cuts and shown how he can avoid the reduction, will then be able to weigh costs and benefits of the proposed action program. He should be entitled to know ahead of time what is required of him and to have full knowledge of alternate opportunities. Sincere help more than any other thing will serve to break down this alarming attitude of distrust between rancher and range technician.

Field Observations On Fallout Accumulation By Plants In Natural Habitats

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Highlight

Fallout accumulation by above-ground plant parts was related to differences in leaf and twig structure and time organs were exposed to atmosphere. Trees appeared to lessen fallout accumulation by understory shrubs.

The accumulation of worldwide fallout by plants in natural habitats has been infrequently investigated. Mosses and lichens accumulated more fallout than vascular plants (Gorham, 1959; Davis et al., 1963). The spring melt of snow increased the accumulation of fallout by alpine tundra plants (Osburn, 1963). Tuberscent-leaved plants accumulated more fallout than glabrous leaved plants (Romney et al., 1963). Grasses growing on a flooded lowland habitat accumulated more fallout than grasses from a well drained upland habitat (Davis et al., 1963). Strontium-90 has been reported to accumulate in the basal portions of perennial pasture grasses (Russell, 1958).

This paper reports the levels of gamma radioactivity of some common plants collected in 1963 with reference to phenology, leaf morphology and community structure, from the natural vegetation mosaic of the lower Cummings Creek Valley, Wooten Game Range, Columbia County, Washington. The Cummings Creek Valley is one of many deep, steep-walled valleys of the Blue Mountain region of southeastern Washington (Figure 1). Soils of the slopes consist of fine-textured loess intermingled with large quantities of basaltic stones. Surface soils in the valley tend to be less stony. The vegetation mosaic is composed of grassland and forest associations. Streamside vegetation consists of a narrow band of deciduous trees, mostly alder (Alnus tenuifolia), birch (Betula spp.), and occasional tall cottonwoods (Populus trichocarpa). Grassland stands are representative of the Agropyron/Poa association, while most forest stands are representative of the Pinus/Physocarpus or Pseudotsuga/Physocarpus associations (Daubenmire, 1942, 1952). Grassland stands occupy the south-facing slopes and the exposed spur ridges on the north-facing slopes. Forest stands occupy portions of the valley floor, ravines and depressions on the north-facing slopes. Logging and forest fires have removed trees from some sites. The grassland vegetation is in good condition (Buechner, 1952). Dominant grasses and forbs, bluebunch wheatgrass (Agropyron spicatum), lupine (Lupinus sericus), and balsamroot (Balsamorhiza sagittata) were harvested by clipping near the ground from a stand representative of the Agropyron/Poa association. The leafy twigs of ninebark, Physocarpus malvaceus were clipped more or less at random from stands with and without an overstory or trees.

All harvested material was sealed in plastic bags for delivery to the laboratory, dried, and milled to pass a 1 mm screen. A 100 to 200 gram portion of milled sample was placed in a 500 ml capacity plastic bottle and counted in a well-type, 9 x 11

1 Work performed under Contract No. AT(45-1)-1350 between the Atomic Energy Commission and General Electric Company. The cooperation of the Washington State Game Department in allowing the collection of samples for this study is gratefully acknowledged. This study is a part of a study designed to evaluate the effect of climate on the uptake of fallout by browsing animals.