Forest Grazing—an Opportunity for Diplomacy

John E. Mitchell, David M. Eissenstat, and Alex J. Irby

The recently released publication, Assessment of the Forest and Rangeland Situation in the U.S., by the USDA Forest Service (1980) in response to the 1974 Resources Planning Act, contains some interesting observations on the subject of forested rangeland. First, production of forage is much below its potential. Second, projections show demands for range products are rising faster than supplies. Third, the bulk of our nation’s huge forest and rangeland base is privately owned. Based on these observations, we would reasonably expect that much of the nationwide potential increase in red meat production to meet such demands will come from rangelands and forested rangelands that are privately owned.

In the northern Rockies of the Pacific Northwest, the opportunity to greatly increase cattle and, especially, sheep operations is enhanced by the presence of large areas of ungrazed privately owned transitory range. Transitory ranges are those forested areas that are only suitable for grazing for a limited number of years following logging or fire before the overstory canopy closes in, cutting off the light needed for understory production. From a livestock producer viewpoint, the principal barriers to taking advantage of this range are its remoteness and a lack of complementary winter range. As demand for grass-finished red meat increases, the higher cost of grazing remote rangelands may become economically viable. Winter livestock operations could be supported in the nearby Columbia Basin of eastern Washington, which has a suitable climate and hundreds of thousands of acres of irrigated farmland that could provide feed in the form of crop residues.

Doing business as a range manager on private holdings, however, is quite different from the modus operandi of federal and state agencies charged with stewardship of public lands. Essentially, this former aspect of range management can be broken into two situations: One, working with small woodlot owners and farmers, primarily the job of each state and to a lesser extent, the Forest Service and Soil Conservation Service; and two, working with or for large timber companies holding substantial tracts of commercial forest lands. Some of our experiences with large timber companies on private lands in the western red cedar zone of the northern Rockies are discussed here.

Several major problems pose obstacles to the advancement of range management on private forest land. Perhaps the greatest problem is that of scattered ownerships, over which are superimposed grazing allotments—often informal and defined only by individual permittees through the leases they are able to obtain. Second is the perceived conflict between growing trees and grazing livestock as expressed in such forms as trampling and browsing damage to regeneration, soil compaction, and cows just generally “being in the way.” Most timber company foresters are exceedingly frank on this subject. They would rather not have livestock on their land. Except as constrained by forest practice acts and similar statutes, timber companies by and large do not feel obligated to practice multiple use management unless it can be justified economically.

Forest range managers are confronted with the commonly held belief of timber company policymakers that net income from their forage resource is a mere pittance in comparison to that obtained from timber and pulp. In the past, grazing has been tolerated on company lands because it had already existed when intensive timber management came into practice, and politically, no acceptable way existed to eliminate grazing. Hence, forest grazing was reluctantly tolerated, but, for the most part, not managed.
Finally, silviculturists, rather than range managers, generally make the decisions that affect the design and implementation of grazing programs. Harvest and regeneration operations can (and do) have the capability of enhancing livestock grazing on forested rangelands, or eliminating it. What, then, can be done to mitigate the conflict between timber and livestock management on privately owned lands?

With respect to mixed ownership of private lands, no adequate solution can exist without the cooperation of the landowners. With the help of Potlatch Corporation, Clearwater-Potlatch Timber Protective Association, the Clearwater National Forest, and the University of Idaho, a cooperative program was initiated two years ago in the Clearwater-Latah County areas of northern Idaho primarily to help deal with grazing problems associated with mixed ownership. Landowners or policymakers, foresters, range managers, and others were represented. We found it to be imperative that the program be kept informal in order to assure participation by the landowners, who did not want to be tied to a formal organization. Once formed, however, participants discovered it to be well suited to address other common matters in addition to grazing, such as layout of main logging roads and control of woodcutters and other forest visitors. A cooperative program is one way that problems relating to grazing across ownership boundaries can be address. Its viability requires active participation by all parties and the services of one or more individuals who want to see the program work and are willing to assume the necessary leadership role.

In the northern Rockies, the best evidence we have so far indicates that areas undergoing regeneration after a clearcut or similar harvest method need to be protected from cattle grazing until the seedlings have become successfully established. For example, Douglas-fir seedlings have been found to be extremely sensitive to trampling damage during the first year after planting, and cattle appear to be much more prone to scar tree seedlings by trampling them than to browse them (Eisenstat 1980). Forest practice acts generally require regeneration establishment within 5 years after harvest, which makes this issue even more sensitive. Consequently, the placement of a forest harvest layout in a grazing allotment can close the use of that pasture if some way isn't available to protect the regeneration. On the other hand, under different conditions, the same clearcut might not hinder the grazing plan at all.

Cattle are creatures of habit and have favorite travel routes, hangout areas, etc. Often, by only slightly adjusting the boundaries of a timber sale, or by leaving a narrow access strip, for example, through a saddle, the inherent potential for livestock damage can be decreased by orders of magnitude. Animal damage to trees is concentrated instead of being randomly distributed in a plantation, and a little coordination between the forester and range manager can help eliminate the animal build-ups that cause this damage.

What about protecting a plantation? One solution, found to be successful in northern Idaho, is to use natural barriers made of logs (Fig. 2) instead of building a fence which is often cost-prohibitive. Such log fences have the added benefit of being maintenance free, visually unobtrusive, safe for wildlife passage, and biodegradable. By the time a plantation can be grazed, the log fence will have started to break down and no longer be needed for livestock control. Remember that this activity, too, requires close coordination with the forester, and logging crew. Sufficient non-salable logs must be left after slash disposal to build the fence, which is, of course, cheaper to do while equipment is still on the site.

Foresters can also affect grazing capacity through their policy of whether or not they seed secondary haul roads, skid trails, and landings. On some harvest sites these items account for up to one-quarter of the total land area (Fig. 3). If the forest land owner can be convinced that seeding palatable grasses and legumes will not detrimentally influence tree regeneration, understory forage production can be greatly increased. Moreover, grasses and legumes seeded to log-

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*Fig. 2. Natural fence, constructed of pulpwood logs, of the type that could be used to protect forest plantations and other areas from livestock.*

*Fig. 3. Clearcut area in the northern Rockies depicting a typical distribution of logging roads and skid trails.*
Fig. 4. Grass competition study site in Clearwater County, Idaho. The stumps, averaging about 5 feet d.b.h., are all that remain from the old-growth western redcedar logged from the privately owned land in 1976. The grass treatment (background) is dominated by orchardgrass. Control plots are in the right foreground. (See Eissenstat (1980) for a more in-depth discussion.)

Finally, with reference to two of the problem areas—competition between trees and livestock grazing and their economic tradeoffs—we conclude that more research or field application is badly needed. Insufficient evidence or technological communication is available to allay the concerns of some timber company silviculturists that seeding grass to clearcuts, or even skid trails and haul roads, will hinder regeneration. There has, however, been some excellent work conducted nearby in the Blue Mountains of Oregon and in British Columbia (see, for example, Skovlin et al. 1976 and McLean and Clark 1980) which supports the potential grazing use of forested rangelands in the Northwest.

Many timberland managers are reluctant to allow any grazing program that may threaten the relatively high capital investments associated with reforestation. Even if the chance of livestock-caused damage may be high, to them the risks are not worth taking. Theoretically, a forest landowner should want to maximize profits on a per acre basis from all resources that can be marketed. Under such a scenario, grazing would be allowed to the point where discounted net revenue from the last AUM exactly equalled the additional costs (decreased timber production and increased reforestation costs) associated with obtaining the livestock grazing use. Profit maximization may result from some combination of intensive timber management and attendant livestock grazing programs, rather than a timber operation alone.

For those who are interested in livestock grazing on private forested rangelands it seems apparent that the advancement of the range management profession will depend to a great extent on maintaining good working relationships, including technological communication, with land owners and foresters. Considerable opportunity exists for enhancing our knowledge of range science as it applies to transitory ranges, and for putting that information to work on the ground in the form of livestock grazing programs that are compatible, and perhaps even complementary, with timber management.

Literature Cited


Issues and Technology in the Western Wildlife: a Symposium

Scheduled for November 15-17, 1982, at the Sheraton in Steamboat Springs, Colo., the symposium has as its theme the complex wildlife management situation which has resulted from energy and related development activities in the West. Three primary sessions and a poster session will be held. The major topic areas are: Cumulative and secondary impacts from energy and related development activities; mitigation and sampling techniques; and sensitive wildlife habitats management. Papers will emphasize practical and economical (or theoretical, if appropriate) approaches for the mitigation of impacts to, and the management of, western wildlife.

For further information contact: Robert Comer, Thorne Ecological Institute, 4860 Riverbend Rd., Boulder, Colorado 80301. (Phone 303-443-7325).