Training Livestock to Leave Streams and Use Uplands

Cattle can damage streams and surrounding vegetation—riparian areas—by breaking down banks decreasing water quality, and reducing wildlife living in the stream and on the land. Suggested solutions to this problem have traditionally ranged from the cost prohibitive—constructing fences along waterways—to the extreme—removing livestock completely from rangelands. Behavior principles offer a third, often more cost-effective solution: Using riders to train animals to choose to leave riparian areas and graze on uplands.

Changing preferences. By understanding that behavior is a result of consequences a rider can change habitat preferences of livestock from shady riparian areas to nutritious uplands. The negative consequence of being pushed away from the stream banks, combined with the positive consequences of arriving at upland sites with adequate forage and supplements, changes the behavior of a herd over time. If moves normally coincide with a decrease of nutritious forage in one location and an abundance of forage in the new location, cattle learn to move because good things happen when they move.

Both research and anecdotal evidence demonstrate that calves learn from their mothers to eat particular foods at particular locations, and are more likely to use those areas as adults. Thus, calves that learn to prefer foods on upland sites prefer to use upland sites as adults. Managers who keep replacement heifers from their own herd use the power of experience early in life to develop a herd that uses riparian areas for drinking and upland areas for grazing. Given time, the amount of effort required for riding decreases as the herd changes its pattern of behavior and becomes dominated by cattle that prefer uplands.

Making social behavior work for you. Occasionally harassing animals to disperse them from stream bottoms is not effective, because they will return quickly once you leave. To be successful, riding must be persistent and consistent and the process of being moved must provide positive consequences. Low-stress livestock handling techniques decrease the stress of the move and increases the likelihood that cattle will stay in their new location. Making sure that cows and calves are paired up, and keeping social groups together can prevent short drives from becoming rodeos. A cow without her calf moves slowly, and eventually runs back, taking most of the herd with her. Likewise, if individuals are separated from their subgroup they will return to former locations.

Timing moves to coincide with the animals' regular routine increases success and reduces training time. When moving cattle to a new foraging site, it is best to move them before they have fed. When moving them to new loafing areas, it is best to move them soon after they have fed and watered. By showing the animals the locations of forage, salt and water at the new location, the rider can emphasize the positive consequence of the move. These tactics ensure that cows are more inclined to graze or rest when they reach their new locations and reduce the likelihood they will return to former locations.

Culling may be effective. Not all animals learn to use new habitats and foods. A rider can identify cows and calves that consistently use riparian and upland areas allowing managers to cull cows or subgroups of cows that repeatedly use riparian areas and to keep cows that use upland sites. The effectiveness of selective culling will depend on the amount of home range overlap among individuals from different subgroups. Little or no overlap provides less chance for other animals to discover the absence of culled subgroups and less chance the vacated area will be re-occupied.

Healthy uplands required. The degree to which riding and selective culling of subgroups of animals is effective in protecting sensitive areas will depend on the availability of resources—food, water, salt and shelter—in upland sites. Young females are more likely to occupy the same home range as their mothers if resources within their home range are abundant. On the other hand, resource-poor areas force young females to range further to meet their needs. This increases the likelihood they will discover and settle in other areas, especially if they contain ample resources.

Riding vs. fencing: costs and benefits. Hiring a rider is a cost most ranchers are unaccustomed to including in their budgets, but one that can prove profitable. Bob Budd, manager of the Nature Conservancy's Red Canyon Ranch, has used riders for the last 10 years He has found that the costs of riding are offset by the benefits from additional forage, better herd health, reduced death loss, increased animal performance and improved riparian health. Thanks to the riders, he has been able to increase the number of cattle the ranch can sustain by as much as 50% in normal rainfall years, while also increasing the fish, birds, and wildlife on the ranch.

Training takes time. Managers who wish to retrain their herds must realize that changing habits of animals takes time. Budd says it took them three years to retrain their animals to use uplands instead of riparian sites. In that time, overall productivity actually declined before it rebounded and then improved. He also points out that herding and effectively managing livestock distribution increases the pounds of beef per acre produced but may not produce calves with the heaviest weaning weights.

Conclusions. Training livestock to avoid sensitive areas and to use alternative sites gives land managers another option other than removing or fencing cattle from rangelands containing sensitive areas such as riparian areas. If training livestock to use new areas is to be successful, the availability of food, water, salt and shelter at alternative sites and social factors must be considered as well as employing low-stress livestock training techniques for handling and placing animals in new areas.

Additional Reading

Cote, Steve. 2004. Stockmanship: A powerful tool for grazing lands management. USDA-NRCS. Boise, ID and Butte Soil and Water Cons. Dist. Arco, ID. To order call (208) 527-8557, or send an e-mail to frances.perkes@id.nacdnet.net.

Provenza, F.D., 2004. Foraging Behavior: Managing to Survive in a World of Change. USDA-NRCS.
To view or order: www.behave.net.

Smith, Burt. 1998. Movin 'Em: A Guide to Low Stress Animal Handling. 352 p. The Grazier Hiu, Kamuela, HA. ISBN 0-9662704-3-6.

Bud Williams Stockmanship School
http://www.stockmanship.com/index.htm

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