

# EXTENSION EDUCATION

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## Rangeland Decision-Making

Rangelands make up much of Wyoming's diverse landscapes. In fact, around 85 percent of Wyoming is considered rangeland.

So, what exactly is rangeland? Rangelands are a type of land dominated by some mix of mostly native grasses, forbs and shrubs. Some woodlands are considered rangelands too, particularly if they have relatively open canopies and support a significant understory of grasses, forbs and shrubs. As many of us are keenly aware, these lands are managed for numerous uses and livestock production is a just one of the benefits rangelands provide. Wildlife habitat, energy, water and open space are others uses made possible by Wyoming's rangeland ecosystems. How-

ever, with such diversity in uses comes also the variety of management strategies that have large impacts to Wyoming's landscapes. To look at this further, a research team recently attempted to address the question of how management decisions are made by the ranchers who manage these diverse lands.

The Rangeland Decision-Making Survey was developed in a collaborative effort among the Wyoming Stock Growers Association (WSGA), the USDA-Agricultural Research Service, the University of Wyoming and the University of California-Davis. Participants (WSGA producer members) were asked about their goals, ranch characteristics and management practices. There

were a total of 307 respondents, or a 50 percent response rate, to the survey. Below are some of the key findings from survey results that can inform future policy, research and outreach efforts. Survey results also help describe the work that ranchers do. For the general public who may not know much about ranching, this information can help answer questions or inform a broader audience.

As many can relate, ranching operations in Wyoming are very diverse. The median size of respondents' operations was 10,440 acres. Most operations included privately owned land (90 percent) and over half (71 percent) also included public land (federal or state). Private leased land was also common (60 percent). Most respondents grazed cow/calf pairs (91 percent) and nearly half (44 percent) ran stockers. About one-tenth (12 percent) ran sheep and few operations ran only stockers or only sheep. Other activities affected land management on almost three quarters of operations (74 percent).

Primary management goals are livestock production

and forage production. Secondary goals were water quality, riparian/meadow health, soil health and invasive weed management. Wildlife, recreation and carbon sequestration were lower priority management goals expressed by respondents.

Management practices emphasized by respondents focused on livestock production and improvement of natural resources. Grazing management generally involved a less than 90-day rotation (87 percent) of one to five herds (84 percent) through multiple pastures (92 percent) and incorporated rest (99 percent).

The most important facilities for management practices were water development (97 percent) and fencing (81 percent). The most popular herd management practices were planning for herd health and supplemental feed (93 percent and 90 percent, respectively) and matching calving season and genetics to local conditions (93 percent and 90 percent, respectively). The most popular vegetation management practices were grazing livestock and using herbicides

to change species composition (64 percent and 68 percent, respectively). The most frequent landscape enhancement was restoring meadows and wetlands (52 percent).

Drought is another issue of concern to producers in Wyoming. Management practices regarding drought varied as well. Over 80 percent of participants said they prepared for drought by applying certain management practices, but 100 percent responded to drought. Preparations for drought included stocking conservatively (48 percent), resting pastures (47 percent), increasing flexibility by adding stockers (28 percent), grass banking/stockpiling forage (22 percent), and using one to three month weather predictions to adjust stocking rates (16 percent).

Responses to drought were reducing herd size (80 percent), purchasing feed (63 percent), weaning early (47 percent), renting additional pastures (42 percent), moving livestock to another location (27 percent) and selling retained yearlings (24 percent). Over a third (40 percent) of respondents said that drought will be more influential in their management plans and operations in the next 10 years than it had been in the prior 10 years.

Regarding information, other ranchers were the most often-used (97 percent) source to gain new information about ranching. Over 80 percent of respondents had internet access, largely high speed connections (75 percent). Almost half accessed the internet daily (42 percent). Although, a majority preferred to receive information about ranching through print publications (69 percent), rather than the internet (21 percent) or word of mouth (27 percent).

These findings illustrate that although there is much diversity among surveyed

ranches, there are some commonalities that can guide future policy, research and outreach efforts. Many ranches consist of multiple land ownership, graze cow-calf pairs and incorporate other activities that affect land management. This diversity of ownership and activities implies that partnerships among multiple landowners, public land managers and other stakeholders may be increasingly necessary for integrated production and sustainable land management efforts. Outreach efforts for this audience may prove to be more effective with a multi-pronged approach using several different media sources.

This was only a subset of questions and responses from the Wyoming Rangeland Decision-Making Survey used to describe the characteristics, goals, management practices and information sources used by operators. Stay tuned for more information. Ongoing analyses focus on the factors driving rangeland management decision-making during drought, as well as relationships between particular goals and management practices. The information provided by respondents will also guide future research regarding management practices.

A factsheet summarizing survey results is available at [rur.ars.usda.gov](http://rur.ars.usda.gov). A research paper summarizing survey results will be published in the online journal *Natural Resources* in March.

If you are interested in finding out more about survey results, please contact Emily Kachergis at [emily.kachergis@ars.usda.gov](mailto:emily.kachergis@ars.usda.gov) or 307-772-2433 ext. 105. Rachel Meador is the UW Extension Range Specialist and can be reached at [rdmeador@uwyo.edu](mailto:rdmeador@uwyo.edu). The Rangeland Decision-Making Survey was funded by a grant from the Western Sustainable Agriculture Research and Education program.

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