Monitoring Makes A Difference

Monitoring forage conditions and grazing animals’ nutritional needs is a vital management strategy - especially in times of drought.

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“I love to hear the wind in the grass...” So voiced the wistful Evie to the title character in Louis L’Amour’s western classic, Conagher. While hers is a sentiment no doubt echoed by many whose livelihood depends on our nations grazing lands, in this day and age, few of us probably have the opportunity to slow down long enough to hear the wind in the grass much less wax poetic about it. That said, managing animals to efficiently produce meat, milk or fiber from forage can be difficult even in the best of times. Recent droughts and an unpredictable economy only serve to worsen the situation.

I’ve heard the old-timers say, “We can all ranch when it rains.” When it doesn’t rain, or perhaps more correctly stated, when we have failed to adequately plan for when it doesn’t, many of us will ranch no more.

Those producers who realize drought is a natural recurring process and take steps to plan for that eventuality will most likely be the ones to survive. Monitoring the forage conditions and nutritional status of grazing animals is a vital part of a drought management plan. It is important to remember that monitoring forage involves evaluating both the quantity (i.e. the amount of plant material available for consumption) and quality (nutrient density).

Forage conditions are affected by such factors as season, precipitation, and defoliation. The nutritional needs of grazing animals are similarly dependent on age, class, or reproductive status. Matching forage conditions to animal needs by making informed grazing management decisions improves the efficiency of livestock production. Examples of matching forage conditions to animal needs include:

1. Timing the early post-partum period and peak lactation to occur during peak forage conditions to improve both this year’s weaning weights and subsequent breed-back.

2. Strategic supplementation, i.e. providing only the additional nutrients or bulk needed by the animals, but not supplied by the forage, to help maintain body condition while avoiding unnecessary expense.

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Measuring forage quantity and quality can help match forage resources to animal needs. Forage quantity can be measured by a variety of methods such as disk meters or clipping and weighing small plots. This information will help determine proper stocking rate. Most state land grant universities and several private companies offer chemical laboratory analysis to determine forage quality. Both pieces of information can be used to determine if the forage is meeting animal needs.

Is it possible to predict performance?

The effectiveness of hand clipping to estimate diet quality depends on the skill of the individual in selecting a “diet” similar to that of the animal in question, especially in “range” as opposed to “pasture” situations. If we assume that “what goes in must come out,” then determining diet quality through fecal analysis would seem to be a viable method of acquiring this information. The NIRS/Nutbal Pro system is a two-stage process designed to evaluate the diet and predict the performance of free-ranging animals.

Near infrared reflectance spectroscopy (NIRS) makes use of the fact that organic materials absorb infrared light at characteristic frequencies, such that two materials of different chemical makeup will absorb and reflect infrared light differently. The resulting spectra can be measured, related to some constituent of interest (e.g., crude protein), and quantified. When the technique is applied to feces, the diet quality of grazing animals can be determined.

The Nutritional Balance Analyzer Program (Nutbal Pro) is a decision support software package that applies user inputs about a particular group of animals and calculates their nutritional needs. Combined with the diet quality derived from fecal NIRS, the nutritional balance for that group can be determined. Coupling these two technologies (NIRS/Nutbal Pro) provides ranchers and other resource managers with a useful grazing management tool.

Recent presentations at the Society for Range Management meetings indicate that the NIRS/Nutbal Pro system can be used to successfully project weight change in cattle. Body condition score (1-9 scale) during the summer drought of 1998 was predicted to within one-half score in four different commercial cow herds in eastern Montana. Similar results were observed in two groups of yearling heifers in South Dakota in the summer of 1998 and 1999. Long-term (1995-2000) fecal sampling on a north Texas ranch illustrates the variation in diet quality that can occur from year to year (Figure 1). These studies indicate the utility of monitoring both forage and animal conditions in a sustainable ranching enterprise.

Monitoring impacts ranch profits as well

Forage and nutritional monitoring is not just data collection for the sake of data collection however. A nation-wide survey of over 200 users of the NIRS/Nutbal system was conducted by the USDA-NRCS and Texas A&M University’s Grazingland Animal Nutrition (GAN) Lab in 1998. These producers had participated in the program for 6-22 months. Thirty-four percent of the respondents in this survey observed an increase in net revenue while using this system. In 2000, the USDA-NRCS in Louisiana surveyed twelve ranchers, which had taken part in the 1998 survey and found that, even after an additional two years of monitoring, 25% reported an increase in ranch income.

Monitoring forage conditions and how these relate to current animal needs should be a part of any sound grazing management plan, drought or no drought. Producers interested in more information on using the NIRS/Nutbal Pro system should visit the GAN Lab website at http://enrit.tamu.edu/ganlab/. The USDA-NRCS has also made this service available as a part of prescribed grazing best management practices through the EQIP program. For more information on this program contact Arnold Norman with the USDA-Grazingland Technology Institute at (817) 509-3210.

Grazing Events

MARK YOUR CALENDAR: Livestock Grazing for Vegetation Management will be the focus of a two-day conference Sept. 24-25 at John Ascuaga’s Nugget in Sparks, Nevada. Topics will include sheep and goat grazing for fuels and weed management, prescribed cheatgrass grazing and prescribed livestock grazing to benefit wildlife.

The GLCI Steering Committee Fall Board Meeting & Tour will be held Oct. 25-26 in Eau Claire, Wisconsin.

GLCI IN ACTION: Grazing Lands Dollar$ and Cent$ was the theme of the Aug 16-17 conference in Oklahoma City sponsored by member organizations of the Oklahoma Grazing Lands Conservation Association. Eco-tourism, starting a ranch from scratch and the business of ranching were topics covered.

The Nebraska Grazing Lands Coalition helped sponsor the annual Nebraska Grazing Conference Aug 12-13 in Kearney. The two-day event included workshops about grass-fed beef, managing eastern red cedar and a producer panel about grazing strategies.

July 25-27 the Louisiana Grazing Land Resource Management Workshop was held at Goudeau to promote sustainable beef production in the state. Topics covered included grazing system design, animal selection and handling and livestock economics. The event was hosted by the Acadia RC&D and NRCS.

In July, a grazing tour was held at Blair Bros. Ranch near Sturgis, South Dakota. The family has an intensive rotational grazing system and is currently cooperating with the state’s Grassland Coalition on a ecological analysis project.


In mid-May, the Nebraska Grazing Lands Coalition hosted a three-day Ag Leader Workshop at the Nebraska State 4-H Camp in Halsey. The workshop included several ranch tours as well as classroom time.

To share upcoming events or ideas from past GLCI tours and workshops, send your comments to Kindra Gordon at kindras@gordonresources.com.
Muuns Represents Western Views
Tim Muuns is also a lifelong rancher. He grew up on a diversified farming and ranching operation in Utah. Twenty-five years ago, he and his wife Laurie bought a ranch in the high desert country of northern Utah and as Tim says, “have been making payments ever since.”

Today, their diversified ranch includes 400 commercial cows and 2,500 dryland acres, most of which is used to raise wheat and alfalfa. They also own shares in a grazing association in Idaho, so cows spend summers in Idaho and winters in Utah. The Muuns family includes daughter Sara, son Sonny and twin boys Bud and Bill.

Muuns is current president of the Utah Cattlemen’s Association and serves on the Board of Directors for the National Cattlemen’s Beef Association. He was elected to the county commission with ASCS and served in that role for 10 years. Currently, his wife Laurie serves on that board.

Over the years, the Muuns have implemented erosion control, pasture management, and rotational grazing strategies into the stewardship efforts on their ranch. Last year, they were recognized by the Utah Section of the Society for Range Management as “Rancher of the Year.”

Muuns is also adamant that promoting and preserving private grazing lands needs to be a top priority. He views encroachment of urban and suburban developments as a growing threat to available private grazing lands.

A Common Goal
With their practical ranching backgrounds, it’s no surprise that Merrill and Muuns feel strongly about the Grazing Lands Conservation Initiative and it’s goal of providing technical assistance to private landowners. “These lands are the breeding and growing ground for the country’s cattle and sheep; they constitute major watersheds, wildlife habitat, and are a source of recreation and open space amenities,” Merrill says.

“We need a cooperative effort to keep grazing lands healthy. We don’t want a government mandate, but private landowners need and appreciate technical advice in properly managing grazing lands,” Muuns says. “We want range conservationists doing range work,” he adds.

Merrill adds, “The fact that 9 organizations have come together for the benefit of one cause – providing technical assistance on grazing lands – really dictates the importance of the GLCI effort. GLCI has become one of the strongest forces in support of conservation legislation, and I credit that to the efforts of all nine member organizations.”

Of the future Merrill and Muuns say they hope to see the GLCI mission continue to strive for personal stewardship that’s voluntary and for increased availability of technical assistance.

Merrill likens his philosophy toward conservation assistance to a quote by President Lincoln: “The government should do for the people only that which needs to be done in the public interest that the people cannot do for themselves.” Says Merrill, “If we’d stayed with that in all things, we’d be much better off.”
THE CHAIR’S CORNER

It is with sorrow that we lost one of our devoted members Pete Jackson, who passed away July 9, 2002. Pete was the original promoter on the Grazing Land Conservation Initiative. He attended all the meetings and was a strong supporter of technical assistance to producers on the land. (See Pete’s obituary at right.)

On Monday, July 8th, 2002 the United States Department of Agriculture held their annual Honor Awards Ceremony in Washington, D.C. The Grazing Lands Conservation Initiative’s National Steering Committee was nominated for the award and on Monday was honored by receiving the award. I was privileged to represent the committee at the awards ceremony.

The award was in the category: Maintaining and Enhancing the Nation’s Natural Resources and Environment, and GLCI was paid tribute “For significant contributions to improving grazing land management by providing technical assistance to conserve privately owned grazing lands.” Other members of the National Steering Committee that were recognized were: Dr. C. Pat Bagley, Flavius Barker, Eunice Biel, James K. Brite Jr., Jack Cutshall, Art Darling, Ron Harnack, Aggie Helle, Pete Jackson, Gerald Jaeger, Richard Kjerstad, Jack Laurie, Jack Maddux, Bob McCan, John Merrill, Tim Munns, Frank Philp, Leonard (Bud) Purdy, Gretchen Sammis, John Spain, Bill Tracy, Bill Tucker and Joe Wright.

I also had the opportunity to attend the South Central National Association of Conservation Districts and partners leadership meeting held in Amarillo, Texas. It is always refreshing to meet with our partners at their meetings.

Bob Drake, Chairman
National GLCI Steering Committee

GLCI News

A Tribute To Pete Jackson
1927-2002

Peter V. Jackson, III of Harrison, MT passed away at his ranch July 9, 2002. Pete was born in Butte, MT on May 18, 1927. He devoted much of his life to ranching and range management. He was a life member of the Society for Range Management and served as president of that organization in 1974. He was also the Executive Vice President of SRM for nine years. Pete married Jonneta Pierce on April 29, 1949. Shortly after their 50th wedding Anniversary in 1999 Johnnie passed away. Pete is survived by his sons Ward and Jon and by daughter Shelly, eight grandchildren and nine great-grandchildren.

It was announced at Pete’s funeral that the Secretary of Agriculture had named him among the 2002 USDA Honor Award recipients as a member of the GLCI Steering Committee. Pete was not aware of this award.

Memorials may be sent to: Peter V. Jackson, III Memorial Fund c/o SRM Endowment Fund, 445 Union Blvd., Suite 230, Lakewood, CO 80228-1259 or Sterling Restoration Foundation, PO Box 174, Harrison, MT 59735.

Contact these affiliated organizations:

American Farm Bureau Federation
Rosemarie Watkins
(202) 484-3608

American Forage and Grassland Council
Dana Tucker
1-800-644-2342

American Sheep Industry
Tom McDonnell
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National Association of Conservation Districts
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National Cattlemen’s Beef Association
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National Farmers Union
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Visit the GLCI homepage at http://www.glci.org

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