Grazier

► by **Kindra Gordon**

Grazing innovations

The latest research, technologies and management ideas for grazing programs were presented at the Second National Conference on Grazing Lands Dec. 7-10, 2003, in Nashville, Tenn. Sponsored by the Grazing Lands Conservation Initiative (GLCI) and its industry partners, the event included 175 speakers on topics including wildlife and livestock interactions, grazing and endangered species, grazing management on small acreages, and much more. Following are highlights from a handful of the presentations.

A bevy of beetle benefits

Reduced fly and parasite populations, increased nutrient cycling, and more available surface area for forage growth are all benefits provided by a mighty little force called dung beetles. These beneficial bugs are an important component to a healthy pasture ecosystem, says University of Arkansas (UA) graduate student Michelle Thomas.

She explains that with good dung beetle populations, manure pats will be broken down and nutrients returned to the soil within a few days. Quick removal of manure pats also helps minimize fly and parasite populations, and increases the area for forage production.

"Without dung beetle activity, a manure pat can last a year or longer," adds Bill Clymer, a livestock parasitologist with Fort Dodge Animal Health.

To enhance dung beetle populations on an operation, Thomas says grazing management plays a key role. That includes leaving enough residual forage to increase soil water retention and organic matter, which is a favorable environment for dung beetles. Rotational grazing that brings animals back to a paddock about every 30 days when new beetles are emerging from the soil is also a good management practice for dung beetles.

Also consider the type of endectocide used for parasite control in livestock. Most on the market are harmful to dung beetles. However, moxidectin-based products, such as Cydectin® for cattle and Quest® for horses, have been shown to be less toxic.

If worming is necessary, another strategy is to use a 30-day pour-on or injection rather than a six-month bolus. The 30-day treatment will only be in the manure one month, and it will not poison as many beetles, which will allow their populations to rebound.

For more information on dung beetles, visit *http://attra.ncat.org/attra-pub/dungbeetle.html*.

GPS offers grazing insight

Most longtime ranchers think they know their cattle pretty well — right down to their favorite grazing spots. But Global Positioning System (GPS) technology is offering helpful insight into the world of livestock grazing. Texas A&M University Extension range specialist Robert Lyons is using this technology on three ranches to help determine where animals are, and are not, grazing.

On each of the three ranches, four to six animals among a herd of about 50 were collared with GPS collars, and their location points were plotted with GPS every five minutes, 24 hours a day during the study periods. Results revealed that animals often avoided particular areas within the pasture — sometimes the areas were too far from water, too heavily covered with brush, too steeply sloped or too rocky.

"Grazing distribution was uneven in all of the ranches studied," Lyons reports. While many may expect this, with the GPS data points of the animals plotted on a map, landowners can see exactly what areas are being used and what areas are being avoided.

Lyons says that is powerful information. "With that knowledge, landowners can eliminate some of these problem areas with management. In some situations, they can adapt to the challenge and perhaps save those areas for wildlife or recreation."

Lyons reports that individual GPS collars cost about $4,500, but he says they are a worthwhile research tool that will provide valuable grazing management applications in the years to come.

Technology ahead

Lowell Catlett, a New Mexico State University (NMSU) ag economist and futurist, credits GPS technology for making the biggest change in agriculture during the past 10 years. He expects its use as a precision farming tool to continue to become more popular in the future.

Biotechnology, growth of the Internet, better weather satellite accuracy and the cell phone were also on Catlett's list of the top

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Working with the media

Taylor Brown, a farm broadcaster with the Northern Ag Network based in Billings, Mont., addressed attendees at the Second National Conference on Grazing Lands Dec. 7-10, 2003, in Nashville, Tenn., during a luncheon session. Brown shared these tips for working with the media.

- **Utilize the media who are friendly to you. "Get to know your local ag editor and farm broadcaster ahead of time, so that when your organization has an issue or event it wants covered, you have a contact person." He says not to try to convert media with an opposing viewpoint. "You're not going to change them."**
- **Take the initiative. If you can help the media set up interview sources or places to get video footage, they'll be grateful to you, he says. Watch the national news on your issues, then help your local media find local sources providing your viewpoint, because they are seeking that local angle.**
- **Practice being a good spokesperson for your issues and viewpoints.**
- **Continually provide the media with information. He suggests including local media on mailing lists for your local or state newsletter, press releases, listings of upcoming events, Web sites, and contact information for leaders in your organization, so they have ag-friendly sources at their fingertips.**

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five most influential technologies that have developed and improved agriculture in the past decade. Of the cell phone, Catlett says, "It may seem small and insignificant, but it is truly saving us precious time."

What technological advances can we expect to see by 2013? Futurist Mike Boehlje at Purdue's Center for Agricultural Business predicts three types of technology to gain in popularity.

- Technology to manipulate growth processes of plants and animals. Essentially, he sees a continuation of biotechnology (Bt) work that has already developed such crops as Bt corn and Roundup Ready® soybeans.
- Technology for monitoring and measuring systems. Expect more use of GPS and remote sensing.
- Automated process control technology that will include high-tech sensors that monitor grass and grain crops' water and fertility levels, humidity amounts, etc., for site-specific management practices.

Sprawl expensive for everybody

The 35-acre ranchette down the road is costing you money. That's according to a new study by Colorado State University (CSU) that shows, on average, dispersed rural residential development, such as one residence per 35 acres, costs tax payers $1.15 for every tax dollar they generate. Farm and forestland uses, on average, require 35¢ of every dollar of tax revenue generated for services.

Rural residential development affects wildlife, public-land access, open spaces and the fiscal structure of the county, reports CSU professor Andy Seidl. Colorado residents are "subsidizing the sprawling new residential developments now characteristic of the Western landscape." The complete study is available at *http://dare.agsci.colostate.edu/extension/apr03-02.pdf.*

Adding to the concern, the American Farmland Trust says we are losing two acres of farmland every minute of every day. Their report, Cost of Community Services Studies: Making the Case for Conservation, costs $16.95. To order, visit *www.farmland.org* or call 1-800-370-4879.

Easements and grassbanks

With increasing land pressure for urban development, many rural landowners find themselves faced with big decisions to make. Should they sell the land or preserve it for future generations?

Paul Sweeney, a Natural Resources Conservation Service (NRCS) liaison with the Western Governors' Association, encourages producers to think about conservation easements. He says, "Easements are a possible tool for farm and ranch families to ensure that the next generation can stay on the land."

Several federal programs, such as the Farmland Protection Program and the Grasslands Reserve Program (GRP), as well as private, nonprofit and state programs are being developed to purchase development rights from rural landowners to prevent these lands from being developed, but they still allow for producers to stay and work on the land, Sweeney says.

"These programs are all voluntary," he emphasizes, explaining that many options allow for land in easements to continue to be productive ag land because they contribute to watershed function, help maintain wildlife habitat and preserve scenic beauty.

For more ideas on conservation easements, visit *www.westgov.org/wga/publicat/pdr_report.pdf.*

Another type of conservation easement being used on some Western rangelands is grassbanking. As an example, the Heart Mountain Ranch near Cody and Powell, Wyo., has been set up as a grassbank by the Wyoming Nature Conservancy, the organization that owns the ranch. The grassbank was established to give producers forage alternatives and to promote long-term improvement on rangelands.

Livestock producers can apply for summer grazing permits on the grassbank for a fee that is about half the cost of what grazing fees would be on private lands. As part of the swap, the land that they would have traditionally run their livestock on is then involved in some form of restoration — such as a prescribed burn or grazing deferment to allow vegetation to regrow for winter wildlife grazing.

"It's an opportunity to exchange values for values," says Dennis Sun, a coordinated resource management consultant with the Wyoming Department of Agriculture. He explains that livestock forage values can be exchanged for a desired resource outcome on land that is under restoration while cattle graze the grassbank.

Recently, the Heart Mountain Ranch grassbank provided 1,700 animal unit months (AUMs) of forage to three area ranch families. In turn, two restoration projects on their lands were implemented. They included rest from grazing on Sheep Mountain's critical elk winter range and rest from grazing on the Bald Ridge Forest allotment for a fuel reduction burn by the Forest Service of the U.S. Department of Agriculture (USDA).

Sun says the group has two objectives for the project. The aim is, first, to sustain the diversity of Wyoming ranges and forests, and second, to keep ranchers on the land and ranchland habitats intact. "We really believe this grassbank will enable improvement of lands for livestock, wildlife and sensitive species," Sun says.

While this is the first grassbank established in Wyoming, Sun hopes this innovative example will foster more cooperation and solution-oriented approaches to future resource issues. For more information about this program, contact Laura Bell, director of the Wyoming Nature Conservancy Absarokas program, at (307) 587-1655.

Sharing ideas

For producers with grazing management questions, North Dakota and Nebraska have both taken a unique approach to help share ideas. Grazing coalitions in each state have set up a mentoring network to help offer information, ideas and insight to interested producers and agency personnel.

The mentoring group consists of experienced grazing land managers across the state who have agreed to provide guidance and counsel based on knowledge and experience they've gained in their businesses and their interactions with other ranchers across the country. The coalitions in each respective state have developed a brochure with a list and contact information for the mentors, including mentors' particular areas of expertise. To learn more contact North Dakota's Todd Hagel at todd.hagel@nd.usda.gov or Nebraska's Roger Chesley at rchesley@gpcom.net.

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Editor's Note: *If you were unable to attend the Second National Conference on Grazing Lands, proceedings will be available highlighting each of the presentations. To request a copy, contact Monti Golla, administrator of the GLCI at (979) 268-0980, or at grazinglands@cox-internet.com.*