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A voluntary partnership with private landowners

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Rotational Grazing in Riparian Areas... Trout and Livestock Can Coexist

by Brian Pillsbury, State Grazing Lands Specialist, USDA-NRCS, Baraboo, WI

There are many visitors to Dick Ryan's pastures, but they are mostly looking for trout, not cattle. "On most days, there are cars in fishing access area parking lot, when I come over to move my cattle," says Richard (Dick) Ryan of Lodi, WI. The approximately one quarter mile of stream that meanders through his 60-acre pasture is a popular spot with local anglers. The good quality water in the stream and the stand of vigorously growing grasses along its banks results in quality fishing and a healthy riparian area, all of which can be attributed to Dick's rotational grazing system.

His stocker cattle grazing operation consists of dividing pastures into small paddocks, one to three acres in size. The cattle are put into a paddock when the forage regrowth is at least 6-8 inches tall, and taken out when they have grazed the grass and legumes down to about 3 inches. The average occupancy of each paddock is 1-2 days for approximately 100 steers. Before implementing rotational grazing, he installed rock riprap and crossings in the stream to protect the banks. The crossings were built with rock on a gentle side slope down to the water. Technical assistance, including design of the riprap and crossings, was provided by the local Natural Resources Conservation Service office. Now, after ten years of well managed grazing, the streambanks are covered with a vigorous, dense sod of cool season grasses and legumes.

Rotational grazing has proved to be an acceptable alternative to fencing livestock from streams in Wisconsin. A team of researchers at the University of Wisconsin-Madison and the Wisconsin Department of Natural Resources (DNR) compared the ecological effects of grassy buffer strips, woody buffer strips, continuous grazing, and rotational grazing along trout streams. They evaluated fish communities, aquatic insects, stream bank condition, forage production, and wildlife species on 19 farms in southwestern Wisconsin.

Results from the three-year study indicate that rotational grazing is better than continuously grazed, moderately stocked pastures with regards to in-stream habitat and streambank stability. Streambank erosion was lower, aquatic invertebrate community was better, and overall trout habitat was better in streams adjacent to rotationally grazed pastures. Rotational grazing was as good as grassy buffers in habitat and bank stability. It was better than grassy buffers in harboring grassland birds because of the adjacent upland pastures. Grassy buffers adjacent to cropland do not attract grassland birds because of the size of the habitat. In this study, woody buffer strips had a negative

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An indication of water quality and stream health – this trout was caught in the stream that runs through Mr. Ryan's pastures.

effect on stream shape, bank erosion, and substrate composition. Streams adjacent to woody buffer strips tended to have higher width-depth ratios, more bank erosion, resulting in more fine substrate than either rotational grazing or grassy buffers. They were more like continuous grazing in fine substrate. This implies that as grassy buffer strips change to woody buffer strips through succession, some of the benefits that initially accrued from buffer strips establishment will be lost. Rotational grazing is, therefore, a reasonable means to keep buffer strips in grassy vegetation without incurring additional costs of clearing and cutting to the landowner.

Both rotational and continuous pasture support more diverse bird communities than grassy buffer strips. Some of the birds attracted to the streamside pastures included species whose populations have been declining, such as eastern and western meadowlark, savanna, grasshopper, and vesper sparrows. Amphibians were also increasing in pastures.

Dick Ryan explaining his stocker operation during a pasture walk organized by the local grazing network.

Although implementing rotational grazing along a stretch of stream can have a positive impact on the local trout habitat, it may not increase the fish community. Ultimately, the fish community is limited by other factors controlled by large scale watershed conditions such as land use, topography, and water temperature. It is important to change management on a watershed-wide scale before large changes can be seen in the fish community at a particular site.

The overall goal of grazing streamside pastures is to develop and maintain a healthy vigorous sod. Aside from the rest/rotation principles of managed grazing, there are other considerations when managing streamside pastures. Livestock should not be put in streamside paddocks when the soils are wet or on hot days when they will stand in the stream. Good facilities such as crossings, proper fence layout, and alternative watering systems will also help lower the impact on the stream.

By conducting demonstrations on farms like Dick Ryan's we are getting the word out in Wisconsin about managed or rotational grazing in streamside pastures. A series of field days has been conducted jointly with Minnesota to discuss proper streamside grazing management techniques. A "Grazing Streamside Pastures" publication has been developed for landowners and managers. When all is said and done, managed livestock, rotational grazing, and trout go together to create a healthy stream, a productive pasture, and plentiful fish and wildlife habitat. ■

NEWS FROM THE WEST

Grazing Benefits Recognized in CALIFORNIA

by Leonard Jolley, NRCS, State Range Ecologist, CA

The East Bay Regional Park District in California, which includes the San Francisco Bay area, Oakland and Berkely, has recently approved Revisions to the 1992 Wild Land Management Policies and Guidelines. Revisions were made as a result of a comprehensive public review process by the Grazing Review Task Force to evaluate the grazing portion of the District's vegetation management program. Most noteworthy, it was acknowledged that "the habitat conditions maintained by cattle grazing support many notable wildlife species including Golden eagle, San Joaquin kit fox, California red-legged frog, California tiger salamander, and Burrowing owl." The revisions also include language to improve monitoring and restoration activities to protect resources and to prevent overgrazing, however there is also a formal recognition that "a well regulated grazing program is a proper means to maintain a parkland vegetation mosaic that includes substantial areas of grassland." Among other options or tools for managing wild land vegetation, livestock grazing will be used to preserve the visual and biological integrity of parklands as well as to reduce fire hazard. For more information, contact Leonard Jolley, NRCS State Range Ecologist, CA 530-792-5654. ■

PUBLICATIONS

The New Ranch Handbook:
A Guide to Restoring Western Rangelands
by Nathan F. Sayre,
published by the Quivira Coalition March 2001

As stated in the Foreword by George B. Ruyle, Professor and Chair, Rangeland and Forest Resources Program, The University of Arizona, "The book addresses the multitude of contemporary issues facing rangeland management as a profession and ranching as a livelihood. The vision is not just for livestock production but blends environmental concerns with social and cultural values as well. In this regard, Dr. Sayre is not encumbered by the traditional dogma of range managers and yet is able to select the best of that profession's literature and precepts." The New Ranch Handbook addresses such issues as the compatibility of livestock ranching and conservation values, and the ability of ranchers and environmentalists to work together to benefit rangelands. Copies are $10 and can be ordered through The Quivira Coalition, 551 Cordova Road, #423, Santa Fe, NM 87501, Phone: 505-820-2544, www.quiviracoalition.org. ■

SOUTH DAKOTA – Management Intensive Grazing Tour and Demonstration

Jim describing the MIG system to tour participants.

Eating, conversation and learning go hand in hand when it comes to a farm/ranch tour. The Management Intensive Grazing Tour held at the Daybreak Ranch north of Highmore, South Dakota on July 24 was no different. More than 60 farmers, ranchers and various agency members attended the tour on Jim Faulstich's ranch.

At the tour, participants finished lunch (courtesy of Farm Credit Services), then were guided out to the nearby pastures to see what Faulstich's cattle have been having for lunch all summer.

"The tour demonstrated cattle grazing in a controlled, intensive environment for a specific number of days with a designated amount of recovery time for the grazed land," said Matthew Odden, Hyde County Conservation District summer intern. "This system consists of 320 acres, divided into 21 pastures, ranging in size from 9 to 27 acres, with 15 acres being average-sized pasture." Faulstich presently runs 108 Red Angus/South Devon replacement heifers in this system. Each pasture is grazed for 2-4 days depending on season of use and utilization rates. Livestock will graze each pasture 2-3 times each year allowing almost 360 rest days for each pasture.

Odden and NRCS District Conservationist, Kelly Stout, worked closely with Faulstich over the past couple of years to establish this particular grazing system, tailored specifically for the Daybreak Ranch. "Seven years ago I would have looked at something like this and laughed," commented Faulstich. I'm now a warm-season grass advocate…our state needs more of them." Along with increasing the efficiency of forage availability and utilization, the intensive grazing system should encourage growth and regeneration of some native warm-season grass species over time. One of Faulstich's goals is maintaining good body condition scores for his animals. Dietary analysis using the Nutritional Balance Analyzer or NUTBAL has indicated an increase in the quality of forage as well as an increase in production. These forage quality increases are a reflection of improved health and vigor of the plant communities as well as the increased availability of warm-season species.

According to Odden the tour was a success. "Questions were fielded throughout the tour, there was a wide variety of questions and concerns. A good discussion was held, outlining the pro's and con's of a intensive grazing system." As the name implies, management intensive grazing requires a greater commitment of time and effort and could mean a potential initial financial investment, however, the benefits could be worth the effort. Faulstich can now manage his herd to more efficiently utilize pastures, while maintaining the health and vigor of the plant communities. Some areas that had previously been overused are now providing excellent habitat for ducks and pheasants.

Once trained, animals are moved through the system easily.

For information, contact Kelly Stout, NRCS District Conservationist in Highmore, South Dakota 605-852-2221. ■

OREGON – US Forest Service, Private Landowners and Leaseholders, and NRCS Join Forces

Members of the Gray Butte Grazing Association are working with the US Forest Service, and the Natural Resources Conservation Service (NRCS) to develop cooperative conservation plans on the Crooked River National Grasslands in Central Oregon.

Members of the Gray Butte Grazing Association presently have allotments for livestock grazing on the National Grasslands. Historically, separate resource management plans have been developed for the public and private lands, presenting practical difficulties for Association members to effectively manage livestock operations across these jurisdictional lines. Members of the grazing association and the agencies agreed that coordinated conservation planning would maximize the ability to use grazing livestock as a tool to meet ecosystem improvement objectives, while increasing operation efficiency and enhancing economic gain.

A proposal was developed that has combined the efforts and financial resources of the US Forest Service (Crooked River National Grassland), Gray Butte Grazing Association, and the Natural Resources Conservation Service. In the initial phase of the project, NRCS has agreed to collect data for an inventory and assessment of all natural resources in each land use present in the area (rangeland, pasture, woodland and riparian areas/ wetlands). To date, NRCS has completed ecological site inventory and analysis of approximately 40,000 acres of native rangeland and approximately 65,000 acres of improved dryland pasture. Once the resource inventories and assessments have been compiled and analyzed, this information will be integrated with ecological and management goals to complete the conservation planning process.

For more information, contact Jeff Repp, State Rangeland Management Specialist, NRCS 503-414-3232. ■

THE CHAIR'S CORNER

The Grazing Lands Conservation Initiative was established to ensure the availability of high quality technical assistance as requested by owners and managers of privately owned grazing lands. Technical assistance on grazing lands has been provided by employees of the Natural Resources Conservation Service for more than 65 years. In order for this service to continue to be available, the next generation of grazing land managers needs to understand the value of technical assistance from well-trained, qualified personnel.

The North Dakota Private Grazing Lands Coalition has developed an innovative idea to enhance technical assistance. They have initiated a mentoring program to provide guidance on grazing land management to the next generation of grazing land managers as well as agency personnel. The program, known as the Grazing Management Mentoring Network, provides the opportunity for less experienced people to work closely with experienced grazing land managers who understand resource management, grazing management, conservation efforts, commodity programs, and other pertinent issues. The North Dakota Private Grazing Lands Coalition hosts numerous meetings, training courses, and workshops, as well as providing information and support to participants in the mentoring network. For information on this program, contact Rod Baumberger (Northern Plains Regional GLCI Coordinator) at 605-347-4952.

Representatives of the National GLCI Steering Committee have recently participated in state GLCI meetings in Montana, Colorado, and Texas. State coalitions continue to be very effective in their efforts to make others aware of GLCI and the importance of our grazing land resources. Their contacts with governor's offices, state legislators, congressional delegations, and the media are critical to public awareness, and to the success of GLCI.

The National GLCI Steering Committee business meeting is October 19th and 20th in Nashville, Tennessee. I would like to invite state coalitions to submit GLCI related items of interest and concern to the steering committee for consideration at the meeting. The committee will begin working on the Second National Conference on Grazing Lands that will be held in Nashville in 2003. I am pleased to announce that John Peterson will again serve as the conference manager. His leadership and expertise were largely responsible for the success of our first conference.

There are several sources of information for those of you who are interested in following the progress of the next Farm Bill. One good source for information on the Farm Bill and other current legislative affairs is a website, http://Thomas.loc.gov. I encourage you to keep up the good work you are doing. Your efforts will ensure that our message will be heard.

Bob Drake, Chairman

National GLCI Steering Committee

GLCINews

Contact these affiliated organizations:

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

American Forage and Grassland Council
Dana Tucker
1-800-944-2342

American Sheep Industry
Tom McDonnell
(303) 771-3500

Dairy Industry
Jack Laurie
(517) 323-6575

National Association of Conservation Districts
Robert Toole
(405) 359-9011

National Cattlemen's Beef Association
Myra B. Hyde
(202) 347-0228

National Farmers Union
Chris Schepis
(202) 554-1600

Society for Range Management
Samuel Albrecht
(303) 986-3309

Soil and Water Conservation Society
Craig Cox
(515) 289-2331, ext. 13

Visit the GLCI homepage at http://www.glci.org

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