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Why Do We All Work So Hard on Our Lawns? Blame Habit, Snobbery

by Cynthia Crosses

Gentlemen (and ladies): Start your engines. Soon you'll be devoting a few hours a week to that most Sisyphean of leisure-time activities - mowing your lawn.

Lawns of smooth, green grass pit humans against nature in a pitifully lopsided contest. Nature has all the big guns: moles, voles and other obnoxious animals, droughts, floods, insects, viruses and, the coup de grace, weeds. People have a few defensive weapons: sprinklers, lawn-

care services, weed wackers, pesticides, herbicides and fertilizer. Yet nature always wins. Left untended long enough, most patches of American grass would eventually revert to forest. And if a scrap of the great outdoors is occasionally subjugated, the cost to its minders can be astronomical.

Somehow, though, America became a major player in the global lawn-care industry. Yet why

would a nation of farmers, who struggled for centuries to wring the barest living from the soil, start fussing over inedible vegetation that would rather die than live? As usual, the answer is a combination of habit, snobbery, capitalism and government intervention.

The English brought the concept of mown grass to the U.S., and they imported the earliest grass seed. Pastures of grass fed cows and sheep, and they looked nice, too. But since much of eastern America was wooded, pastures had to be painstakingly cleared, and then they tended to be weedy. Because grass was trimmed either by scythes or grazing animals, fields were full of ruts. There was no water except what fell from the sky. Water hauled from a well or stream couldn't be wasted on a putting green.

Despite their love of democracy, early Americans also brought from England an aristocratic notion of beauty. The mansions of tasteful 19th-century English gentlemen,

decreed John Loudon, considered by some to be the father of modern gardening, should be generously encircled by "the smoothness of green turf." The property - no less than 50 acres – should be created with "a view to recreation and enjoyment, more than profit."

Fortunately, and not coincidentally, manual labor was cheap in England at the time. In the New World, however, there was little labor to be spared for beautification.

> Vegetation either earned its keep, or it was regarded as the enemy. In the South, "many people cleared their yards of grass to keep mosquitoes, rodents, snakes and brush fires away from the house," notes Virginia Scott Jenkins in her book, "The Lawn."

> Even in the nation's growing cities, little attention was paid to the yard. Houses sat close to the streets, and the unseen backyards

were used as vegetable gardens, junkyards or, often, both.

Only with the birth of the suburb could Americans finally realize the ideal of carpeting a buffer zone between themselves and the rest of the world. The lawn was essentially decorative fringe; its value arose partly from its impracticality. Thorsten Veblen noted in his 1899 book, "The Theory of the Leisure Class," that grazing animals had been banished from yards because they gave "the vulgar suggestion of thrift."

Nor did homeowners need animals any longer to keep their lawns trimmed. In 1830, an English textile maker, who grasped the analogy between the nap of velvet and pastureland, patented a rotary mower. In his patent application, Edwin Budding asserted - apparently seriously - that users would find his machine "an amusing, useful and healthful exercise," even though a gardener's

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The Center for Grassland Studies is a unit within the University of Nebraska-Lincoln Institute of Agriculture and Natural Resources. It receives guidance from a Policy Advisory Committee and a 50– member Citizens Advisory Council. This newsletter is published quarterly.

Note: Opinions expressed in this newsletter are those of the authors and do not necessarily represent the policy of the Center for Grassland Studies, the Institute of Agriculture and Natural Resources or the University of Nebraska.

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FROM THE DIRECTOR

One of the enjoyable things about working in Nebraska is the cooperation and interaction that occur among different professional groups and organizations that have a mutual interest. In May, the Nebraska Chapter of the Grazing Lands Conservation Initiative sponsored a "Grassland Summit" at the Rowe Sanctuary Conference Center near Gibbon, Nebraska.

The organizers listed four primary goals when they decided to have the summit: 1) to provide a forum for the prioritization of critical issues concerning the health, sustainability and improvement of Nebraska grasslands; 2) to create communication mechanisms by which organizations could announce training opportunities, workshops, and informational meetings that educate and inform the public about Nebraska grasslands; 3) to provide a voice and face to organizations with an interest in Nebraska grasslands to other organizations with common interests; and 4) to provide a forum whereby organizations with similar priorities may establish a relationship with other organizations, thus allowing partnerships to further their efforts.

Some 25 individuals representing different organizations, agencies and public office holders spoke of the many facets of grasslands, how their offices or organizations were connected to or interested in grasslands, and their concerns and/or priorities. The topics that were frequently mentioned by different people were invasive species, biodiversity, warm-season versus cool-season grasses, wildlife cover and food source, management of grazing lands, conservation and preservation, fragmentation of grasslands, ecotourism, sustainability, training of future professionals, economics, bio-energy, grasslands and water quality. It was interesting to see how much common or mutual interest there was among the many diverse groups. Topics that appeared to have the most common interest according to my notes were invasive species, biodiversity, quantity and quality of water, management of grazing lands, and stakeholder adoption of various programs and technologies.

In my estimation, the Summit was a great success. I believe it accomplished most of the goals of the organizing group, and probably established the foundation for many productive meetings and additional discussions in the future. It is now up to the professionals working with grasslands to see that progress is made in conjunction with the landowners.

Another excellent example of this type of cooperation was experienced recently when the Citizens Advisory Council of the Center for Grassland Studies met and visited some ranches in the Loess Valley area north of Curtis, Nebraska. The Natural Resources Conservation Service, the Nebraska Game and Parks Commission and the University of Nebraska's West Central Research and Extension Center were all cooperating in different projects on these ranches.

With this kind of cooperation among professionals from different organizations and their working with the landowners, surely Nebraska's grasslands will benefit and continue to improve.

M. A. Massengale

Intensify Extensive Beef Systems?

by Terry Klopfenstein, Jeff Folmer, and Galen Erickson, Department of Animal Science, UNL

We have been conducting growing-finishing systems research for the past 15 years. Our goal is to add value to growing cattle by utilizing forages on the ranch or farm. Value is added when we produce good gains on forages in extensive production systems – systems that emphasize grazing rather than harvesting.

The extensive system uses corn residue grazing in the winter and a combination of cool- and warm-season grasses in the summer. We found that steers wintered at 1.5 lb daily gain had lower slaughter breakevens than steers wintered at 0.5 lb daily gain. The lower breakeven was produced by providing steers daily supplements of 5 lb (DM) of wet corn gluten feed during the corn residue grazing and drylot period in the winter/spring. In addition, when we fed seven levels of wet corn gluten feed to steers grazing corn residue, steers began replacing grazed corn residue with wet corn gluten feed when fed more than 6 lb (DM) daily.

Increasing both weight gain and weight at sale should increase the profitability of the beef production system. In order to accomplish this, intensive management of steers may be warranted. Increased levels of supplementation, growth-promoting implants, short-season grazing, and ionophores increase weight gain and, ultimately, final sale weight.

An experiment was conducted over two years to evaluate effects of two developmental systems on performance and economics of long yearling steer production. Steers were wintered in the normal system with corn residue grazing and drylot hay feeding, with 5 lb per day wet corn gluten feed as a supplement. Intensively managed steers were given 6 lb per day wet corn gluten feed and implanted with Ralgro® at the beginning of the wintering period and Synovex® at the beginning of the drylot phase. In addition, intensively managed steers were removed from summer pasture early. Steers were finished on a 40% wet corn gluten feed diet. Intensive system steers were marketed in October and normal system steers were marketed in November following a finishing period.

Steers managed in the intensive system had significantly greater daily gains (P = 0.05) during the winter and grass weights (P=0.058). Intensively managed steers gained 1.96 lb per day, producing a grass weight of 813 lb. Normally managed steers gained 1.66 lb per day, which produced a grass weight of 769 lb.

Intensively managed steers grazed brome and Sandhills range for an average of 78 days and gained 1.98 lb per day during the summer. Daily gain for the normally managed steers was numerically lower (1.72 lb per day) while the steers grazed for an average of 128 days. Normally managed steers had a numerically greater feedlot



in-weight of 986 lb versus 968 lb for the intensively managed steers. Our goal was to have similar weights, and we were successful.

Summer-fed, intensively managed steers had lower daily dry matter intakes (P = 0.04), consuming 27.8 lb/day (DM), compared to normally managed steers that consumed 28.8 lb per day. Summer-fed, intensively managed steers were fed for an average of 103 days, while fall-fed, normally managed steers were fed for an average of 91 days.

Intensively managed steers gained 3.94 lb per day versus 4.25 lb per day for the normally managed steers (P = 0.08). Fall-fed, normally managed steers had a numerically lower feed conversion ratio of 6.78 versus a 7.08 ratio for the summer-fed, intensively managed steers. No differences were present in feedlot final weight, which averaged 1372 lb.

Carcass characteristics for the two groups of steers were similar except summer-fed, intensively managed steers had an average marbling score of 482 and fall-fed, normally managed steers had an average of 510 (400 = Select°; 500 = Choice°; P = 0.19).

Winter feed and health costs were greater for the intensive system steers (P = 0.01). Because of differences in gains, normal system steers had an end-of-winter breakeven of \$77.69 versus \$74.49 for the intensive system. Intensive system steers showed a profit of \$8.20 per head while normal system steers showed a loss of \$17.29 per head. Normal system breakeven after grazing was \$69.25 versus \$67.81 per head for the intensive system. This decreased breakeven for the intensive system resulted in an increase (P = .05) in intensive system profitability (\$53.88 versus \$26.32 for the normal system).

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Why Do We All Work So Hard on Our Lawns? Blame Habit, Snobbery (continued from page 1)

journal described the first machines as "cumbrous heavy things that made a maximum of ear-torturing sound and entailed severe labor to work." By 1897, however, the Sears, Roebuck & Co. catalogue offered three different models of lawn mowers. The first American water sprinkler was patented in 1871.

There were also informal economic and cultural compacts among the new suburbanites that advanced the cause of open expanses of lawn. Landscape architects like Frank Jessup Scott, author of the 1870 book "The Art of Beautifying Suburban Home Grounds," discouraged fences, walls and other private borders. "It is unchristian to hedge from the sight of others the beauties of nature," Mr. Scott wrote. "Let your lawn be your home's velvet robe." Not to mow, the magazine "Better Homes and Gardens" argued later, "is to attack one's neighbors." In the early 20th century, the federal government also weighed in on the topic of lawns. A senior agronomist with the United States Department of Agriculture named Frank Lamson-Scribner declared that nothing "more strongly bespeaks the character" of a homeowner than his lawn. And Mr. Lamson-Scribner urged all Americans to agree on a single variety of grass with a smooth, even surface and uniform color. Such a lawn "carries with it the idea of richness represented by costly garments."

Today, many municipalities have adopted legal ordinances requiring homeowners to keep their lawns trim and free of weeds. But as human beings have recognized for centuries, "the grass is always greener on the other side of the fence."

Editor's Note: The above article appeared in the May 4, 2005 *Wall Street Journal*. It is reprinted here with permission of the *Wall Street Journal*.

Intensify Extensive Beef Systems?

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Feedlot feed yardage and total health costs increased in the intensive system because of the increased days on feed and winter implants (P < 0.01). However, because of decreased summer grazing days, days of ownership were less in the intensive system. Increased ownership days caused increased steer costs (P=0.06) for the normal system. However, total costs were not different between the two systems. Intensive steers had a total cost of \$897.02 versus \$902.79 for the normal system (P=0.40).

Similar total steer costs coupled with similar live final weights resulted in a similar (P=0.55) feedlot breakeven of \$65.85 for the normal system and \$65.40 for the intensive system. As can be expected, similar breakevens and similar live final weight produced similar live feedlot profitability.

Results of this study indicate intensive management of long yearling steers can produce greater profitability if a producer is going to market the steers after the wintering or grazing periods. However, if the producer is going to finish the steers in the feedlot, differences in profitability disappear when selling on a live or carcass basis. Increases in profitability may be achieved with the normal system if marketed on grid due to slight differences in carcass quality.

Editor's Note: Jeff Folmer is former graduate student. Terry Klopfenstein and Galen Erickson are faculty members.

XX International Grassland Congress

by Walter Schacht, Department of Agronomy, UNL

The XX International Grassland Congress was held in Dublin, Ireland from June 26 to July 1, 2005, and was attended by more than 1,000 delegates from countries throughout the world. The International Grassland Congress has assembled about every fourth year over the past 80 years. This was the first time that Ireland hosted the Congress. Ireland was an obvious choice because over 80% of its land area is grassland, and many of the world's leading grassland scientists are from Ireland and neighboring Great Britain. The weeklong program included scientific sessions (oral and poster presentations), educational tours, and social events. Invited presentations focused on grassland production, climate change, biodiversity, greenhouse gases, carbon sequestration, tools for grassland management and education, and grass and forage plant improvement. There were nine mid-Congress tours that visited several research centers, livestock and crop farms, a diversity of grasslands, gardens, areas practicing agroforestry, and historic sites. Some delegates continued on to satellite workshops in Aberystwyth, Belfast, Cork, Glasgow, and Oxford held during the week of July 4th. Each workshop focused on a topic (e.g., silage production and utilization or nutrient cycling) that would be of interest to a specific audience. The Web site for the conference is www.igc2005.com.

Associates of the Center for Grassland Studies attending the Congress included Jim Stubbendieck, Bruce Anderson, Walter Schacht, Ken Vogel, and Rob Mitchell. The XXI International Grassland Congress will be held jointly with the VIII International Rangeland Congress in July 2008 at Hohhot, Inner Mongolia, China.

CGS Citizens Advisory Council and Associates Visit Southwestern Nebraska

The 21st gathering of the Center for Grassland Studies Citizens Advisory Council took place on June 28 in the southwestern part of the state. Council member Bill Bieck with Heritage Hills Golf Course in McCook got us off to a good start with coffee, rolls, and a trip in golf carts to the 13th green. Bill has been the superintendent since the course was built in 1980, and he discussed some of the challenges he has faced over the years. Heritage Hills golfers in the early 1980s were not very receptive to the idea of a links-style course with areas of native vegetation, so he gradually had to scale back until all of those areas were mowed down. As national acceptance of native materials grew, so did local acceptance, and Bill began approaching his board about restoring parts of the course to its original concept. The board has given him the green light and restoration is now well under way. There were also several impediments to getting water to places on the course that needed it, and Bill described some of the ways those problems were handled. He commented that he has learned much from his participation on the Council that has helped him in his superintendent role.



Gordon Gosnell tells the tour group about the impacts of controlled burns on his land near Maxwell, NE.

Next we headed to the Nebraska College of Technical Agriculture (NCTA) in Curtis. After an overview on recruitment and enrollment from Dana Bailey, our group learned about the educational programs in Agricultural Production Systems as it relates to grazing livestock from Clyde Cranwell and Horticulture as it relates to turfs from Brad Jakubowski.

After lunch at NCTA and brief presentations from a team of people about what we were about to see, we headed for the hills – the loess hills, that is. Jerry Volesky



Superintendent Bill Bieck (left) describes management techniques used at Heritage Hills Golf Course in McCook.

(UNL), Doug Whisenhunt (USDA-NRCS), and Dan Rochford, Richard Nelson and T.J. Walker (Nebraska Game and Parks Commission) described the cooperative work of their public agencies in helping private landowners manage their grasslands for the multiple objectives of livestock production and wildlife habitats. We saw the results of prescribed burns to control cedar trees that are becoming an increasing problem in that area of the state. Rancher Gordon Gosnell, who will also speak at this year's Nebraska Grazing Conference, emphasized how important the controlled burn had been for the productivity of his land as well as for tracking, managing and improving habitat for wildlife that included elk, deer, and the American Burying Beetle – Nebraska's only endangered insect (see Spring 2004 issue of this newsletter).

As always, we are most grateful to our hosts and organizers for helping us learn more and spread the word about the important role of grasslands in our lives.

CGS Associates

Richard Ferguson received the Nebraska Agri-Business Association 2005 Water Guardian of the Year Award.

Audubon's First Important Bird Areas in Nebraska Announced

Denton, NE Tuesday, April 20, 2005 - Audubon Nebraska, a state office of the National Audubon Society, is pleased to release its first list of Important Bird Areas (IBA) in Nebraska. The 16 sites are Boyer Chute National Wildlife Refuge, Calamus Reservoir State Recreation Area, Cedar Point Biological Station, Crescent Lake National Wildlife Refuge, Fontenelle Forest Nature Center, Indian Cave State Park, Kiowa Wildlife Management Area, Lake McConaughy State Recreation Area, Lake Ogallala State Recreation Area, Missouri National Recreational River, Neale Woods Nature Center, Niobrara State Park, Ponca State Park, Rowe Sanctuary, Spring Creek Prairie Audubon Center, and Valentine National Wildlife Refuge. They encompass more than 210,000 acres in 13 counties statewide and were chosen from submissions sent in from the public during the initial nomination phase last year.

Important Bird Areas are sites that provide essential habitat for large numbers or a high diversity of birds, or for particular bird species whose population declines are of concern to biologists. Sites must meet strict standardized scientific criteria established by Nebraska's IBA technical review team, which includes many of the state's leading birders and biologists.

"While these sites vary greatly in terms of land ownership, habitat type, and bird usage, they all are critical for the survival of birds in Nebraska," declares Kevin Poague, Important Bird Areas coordinator for Audubon Nebraska. "The IBA Program teaches us that places right in our backyard can be important to birds on a national, continental, or even global scale."

The 16 IBA's contain a variety of habitats, including wetlands and riparian systems, prairie, lake, and forest areas. Each type of habitat serves different bird species. For example, Audubon's Rowe Sanctuary hosts tens of thousands of sandhill cranes nightly on the Platte River during spring migration, one of the world's largest concentrations of cranes. Lake McConaughy near Ogallala is home to large numbers of nesting piping plovers, a federally threatened species, and least terns, a federally endangered species. In the panhandle, surveys at Kiowa Wildlife Management Area south of Morrill have counted over 50 pairs of breeding American avocets and hundreds of migrating Wilson's phalaropes and Franklin's gulls. In the east, Indian Cave State Park, Fontenelle Forest, and Neale Woods were all singled out for their high diversity of migrating songbirds, including several species of concern dependent on large tracts of mature forest, like the wood thrush, cerulean warbler, and scarlet tanager. Spring Creek Prairie Audubon Center encompasses one of the largest tracts of native tallgrass prairie remaining in Nebraska, attracting such birds as upland sandpipers, bobolinks, and Sprague's pipits.

The IBA program is designed to be proactive, voluntary, and based on sound science. While it confers no regulatory status, the information gathered about each site can serve as the basis for conservation measures, such as developing management strategies for specific species. Other opportunities may include producing educational materials and programs designed to increase public awareness about birds and their habitats.

Audubon Nebraska's program is part of a global effort to identify the areas most important to birds in all seasons and to focus conservation efforts to those areas where they will have the greatest effect for protecting birds. It is connected to other IBA's throughout the United States through the National Audubon Society, and the world through BirdLife International. Additional information can be found on National Audubon Society's website, www.audubon.org/bird/iba.

Poague states, "Working to identify, monitor, and conserve critical habitat for birds across the state is a tremendous opportunity and challenge. We look forward to recognizing additional IBA's in Nebraska in the future." The Nebraska Game and Parks Commission partially funded the IBA effort through its State Wildlife Grants program.

Audubon is dedicated to protecting birds and other wildlife and the habitat that supports them. Our national network of community-based nature centers and chapters, scientific and educational programs, and advocacy on behalf of areas sustaining important bird populations engage millions of people of all ages and backgrounds in positive conservation experiences.

Editor's Note: Above is a press release issued by Audubon Nebraska. More information about the Audubon Nebraska Important Bird Areas project is available at www.audubon.org/states/ne/ne-IBA.htm.

Opportunity for Holistic Management Training

Holistic Management, including goal setting, leadership, and communication skills, will be available by distance learning beginning mid-September, 2005. The ten-session course will end in late November. Ann Adams, a Certified Educator for Holistic Management with the Center for Holistic Management (www.holisticmanagement.org) in Albuquerque, New Mexico, is the instructor.

Terry Gompert, a certified Educator for Holistic Management (and a member of the Center for Grassland Studies Policy Advisory Committee), has obtained a small SARE grant to provide scholarships to the first 30 professionals (e.g., FSA, NRCS, educators, policy makers) who contact him and express a commitment to complete the course. Contact Gompert for additional information, 402-288-5611, tgompert1@unl.edu. Application deadline is August 15.

Visit the Ecological Site Information System

by George Peacock, Natural Resources Conservation Service, Central National Technology Support Center, Fort Worth, Texas

Where can you go to find information on native plants adapted to a particular soil or site on the landscape? What about information on plant species composition changes of a particular site related to differing types of disturbances or management? The Ecological Site Information System (ESIS) Web site (esis.sc.egov.usda.gov) developed by the Natural Resources Conservation Service can help provide answers to these types of questions.

ESIS is a web-based application utilized to enter, store and retrieve forestry, windbreak and rangeland plot data and ecological site descriptions that have been developed for forest land and rangeland. ESIS is organized into two applications and associated databases: Ecological Site Descriptions (ESD) and Ecological Site Inventory (ESI). As ecological site descriptions are developed, they will be entered into the ESD database. The ESI database is composed of data for thousands of inventory plots on forest land and rangeland.

Looking across any landscape, it is not difficult to recognize that some parts are different from other parts in regards to the kinds and amounts of vegetation. To understand this variation across the landscape, we classify these different parts into units called ecological sites. Landscapes are divided into ecological sites for the purpose of inventory, evaluation and management. The ecological site description is the document that will contain information about the individual ecological sites.

Today, land managers are challenged with synthesizing an overwhelming amount of scientific information concerning soils, hydrology, ecology, management, etc. Ecological site descriptions can serve as a repository of this information for each ecological site.

Each ecological site description will contain information about physiographic features, climatic features, soils, associated hydrologic features and plant communities that occur on the site. Plant community dynamics, annual production estimates, growth curves, associated wildlife communities, and interpretations for use and management of the ecological site are also part of each site description.

States across the country are in the process of developing the ecological site descriptions and are in various stages of completion. Once completed and entered into ESIS, the information becomes readily accessible to any individual. Users currently are required to have knowledge of which ecological site descriptions they are interested in obtaining information for.

Another application currently being developed that interfaces with ESIS is a web-based application called the Web Soil Survey. Web Soil Survey will provide access to ecological site descriptions for a particular area without the individual needing to have prior knowledge of which ecological sites are present on the area. Within the Web Soil Survey, an individual can delineate and select an area of interest, such as a pasture, group of pastures or entire farm or ranch, utilizing digital imagery. Ecological sites are then automatically displayed for the area of interest. An individual can then select the ecological site of interest to obtain the site description information. Web Soil Survey is expected to be released within the next few months.

	Natural Resources Conservation Service System
Plants 2011	ESI ESI Forestland Rangeland
Quick Access > About ESIS > ESD Home > ESI-Forestland > ESI-Rangeland	About Ecological Site Ecological Site Description System (ESD) (ESIS) Rangeland
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Resources

The USDA-ARS Fort Keogh Livestock and Range Research Laboratory in Miles City, MT has made its 2005

Research Update available online at ars.usda.gov/ SP2UserFiles/Place/54340000/2005FieldDay/ 2005ResearchUpdate.pdf. The 62-page report contains many articles – 11 in the Rangeland Research section alone that deal with research related to fire, drought, grasshoppers, leafy spurge, and much more!

What do cows and fish have in common? They both are greatly affected by riparian areas and how they are managed. The Alberta Riparian Habitat Management Society's "Cows and Fish" program strives to foster a better understanding of how improvements in grazing management on riparian areas can enhance landscape health and productivity, for the benefit of cattle producers and others who use and value riparian areas. See www.cowsandfish.org.

The Nebraska Alliance for Conservation and Environmental Education, founded in 2001, is an organization devoted to promoting and strengthening environmental education efforts in Nebraska. Learn about the organization and access its report, *Environment Literacy and Awareness Survey*, at www.nacee.org.

e-Journal of Land and Water is a new open-access, peerreviewed international scientific journal for research and developments in land and water. The technical scope of the journal is to publish scientific papers of international significance covering basic, applied and strategic research in the area of land and water. It focuses on the integration of the various aspects of land and water management and conservation at a range of scales. While the journal provides an ideal framework for research topics of multidisciplinary nature, it equally allows for coverage of specific components from the wider land and water arena: irrigation science, technology and management; land degradation; catchment management; soil and water conservation; community, social and economic aspects of land and water; sustainability issues; policy and planning. Learn more about accessing information or submitting manuscripts at ejlw.sakia.org.

The Nebraska Grazing Lands Coalition has established a network of Nebraska grazing land managers with successful livestock production operations who have agreed to provide guidance and council to interested ranchers and agency personnel on grassland management. Our Spring 2004 newsletter featured one pair of mentors, Dave and Loretta Hamilton. The mentors are advised by a team of four CGS Associates: Dana Larsen (NRCS) and Brent Plugge, Pat Reece and Jerry Volesky (UNL). The Grazing and Ranch Management Mentors program now has a Web site: www.ranchmentors.org.

Calendar

Contact CGS for more information on these upcoming events:

2005

Aug. 8-9	2005 Nebraska Grazing Conference, Kearney, NE, www.grassland.unl.edu/grazeconf.htm	
Sep. 16-17	2005 Grass Genetics Showcase and Conference, Kearney, NE, www.grassgeneticsplus.com/ showcaseinfo.html	
Sep. 21-24	Center for Great Plains Studies 29th Annual Symposium, Changing Natural Landscapes: Ecological and Human Dimensions, Lincoln, NE, www.unl.edu/plains/events/2005/overview.htm	
Sep. 27-29	Management-Intensive Grazing for Economic & Environmental Sustainability, Linneus, MO, agebb.missouri.edu/mfgc/linneusgrazing.pdf	
Nov. 6-10	ASA-CSSA-SSSA International Annual Meetings, Salt Lake City, UT, www.asa-cssa-sssa.org/ anmeet	
Nov. 12	Multi-Species Grazing Conference, North Platte, NE	
2006		
Dec. 9-13	3rd National Conference on Grazing Lands, St Louis, MO	



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