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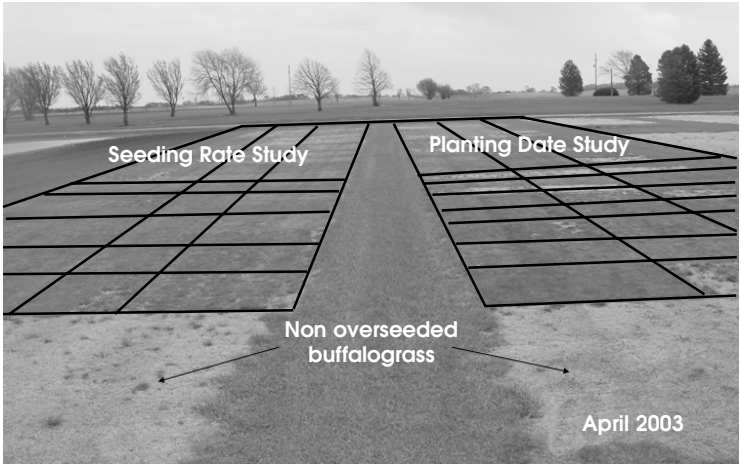
Volume 9, No. 4 Fall 2003

Extending Greencover in Buffalograss Turf

by Songul Severmutlu, Robert Shearman and Terrance Riordan,
Department of Agronomy and Horticulture, UNL

Buffalograss [*Buchloe dactyloides* (Nutt) Engelm.] is a low-maintenance, stoloniferous, perennial warm-season species that is native to the subhumid and semiarid regions of the North American Great Plains. It is the only native grass used as a turfgrass in the United States. The new turf-type buffalograsses are used on lawns, golf courses, parks, grounds, and roadsides.

However, the use of buffalograss as a turf in northern climates is limited because of its long annual dormancy during spring and fall. In those areas, buffalograss greens up in late May, exhibits peak vegetative growth in summer, and goes dormant and turns straw-brown color in mid-October in Nebraska. Overseeding with cool-season species might be one approach to enhance color retention by providing an actively growing turf during dormancy. This is a standard management procedure on warm-season turfgrasses grown in many southern and transition areas of the U.S., but it needs to be repeated each fall. Another approach that we used is to establish a perennial mixture of warm- and cool-season grasses through overseeding. Perennial cool- and warm-season mixtures, although not common in turfgrass areas, have mostly been used in pasturelands. Creating a perennial buffalograss-fine fescue (*Festuca* spp) mixture is expected to extend the green appearance and enhance the quality of the buffalograss stand under Nebraska conditions, especially in the fall and spring. Fine fescues were selected as companion grasses because they are low-maintenance, cool-season grasses that grow actively when buffalograss is dormant. Fine fescues initiate growth in April, exhibit peak vegetative growth in spring and fall and a slow growth rate in summer. Buffalograss attains its highest quality in summer, whereas fine fescues are best in spring and fall. Thus, the growth patterns of buffalograss and fine fescues are opposite and complement each other if grown in a mixture



Spring color enhancement of buffalograss from fine fescue overseeding.

With this in mind, studies were conducted to determine: 1) the best fine fescue species for overseeding; 2) the effect of seeding rate, date and core cultivation on overseeding establishment; and 3) the effect of overseeded fine fescues on spring and fall turfgrass color retention and turfgrass quality.

Three fine fescue species (blue, hard and Chewings) were overseeded into mature buffalograss stands using two levels of core cultivation (single or double pass) prior to overseeding. Three planting-date treatments (fall, spring, fall and spring), and three seeding rates (2, 4, and 6 lbs./1000 ft^2) were also studied. Data were collected on turfgrass quality, color, green cover, and botanical composition of the mixture.

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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

Through the years the United States Government has sponsored different programs such as the Conservation Reserve Program (CRP), Commodity Support, Set-Aside, Risk Insurance, etc. to assist farmers, ranchers and other landowners. In most instances, these programs have been for multiple purposes. The more recent conservation programs appear to be moving away from land retirement and more toward having the land work for its owner.

Money was appropriated this year by the U.S. Congress to initiate a new program, the Grassland Reserve Program (GRP). That is good news for those involved with or interested in grasslands. The program was established to help prevent fragile grasslands from being converted to other uses while supporting grazing operations, wildlife habitat and biodiversity.

The Grassland Reserve Program was authorized by the Food Security Act of 1985 and as amended by the Farm Security and Rural Investment Act of 2002. The U.S. Department of Agriculture's Natural Resources Conservation Service and the Farm Service Agencies in cooperation with the U.S. Forest Service administer the programs. However, funding is from the Commodity Credit Corporation.

The GRP is a voluntary program that helps restore and protect grasslands while offering significant flexibility to the landowner who has the opportunity for a 30-year or permanent easement or a 10-, 15-, 20- or 30-year rental agreement. According to Steve Chick, Nebraska State Conservationist with the Natural Resources Conservation Service, the interest in this program in Nebraska has far exceeded expectations. Approximately $50 million are available nationwide for the program; the first sign-up period in Nebraska alone resulted in 507 applications totaling about $60 million.

Participants are required to voluntarily limit future use of the land while retaining the right to conduct common grazing practices, produce hay, mow or harvest for seed production, except certain restrictions are enforced during the nesting season of bird species that are in significant decline or that are protected under federal or state law. The participants do need to conduct fire rehabilitation and construct firebreaks and fences.

Again, according to Chick, there is no maximum limitation on the amount of land that may be offered for the program, but there is a minimum requirement, established by law, that the area must contain 40 contiguous acres unless special circumstances exist to justify a smaller acreage.

For those of us working with grasslands, it is encouraging to see the high degree of interest in this new government program.

M. A. Massengale

Extending Greencover in Buffalograss Turf (continued from page 1)

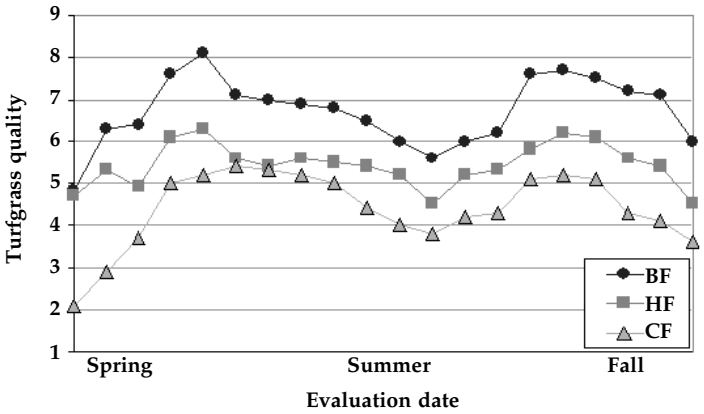


Figure 1. Turfgrass quality for the blue fescue (BF), hard fescue (HF) and Chewings fescue (CF) treatments during spring, summer and fall of 2002. Turfgrass quality was rated using a visual rating scale of 1 to 9, with 1=poorest, 6=acceptable, and 9=best.

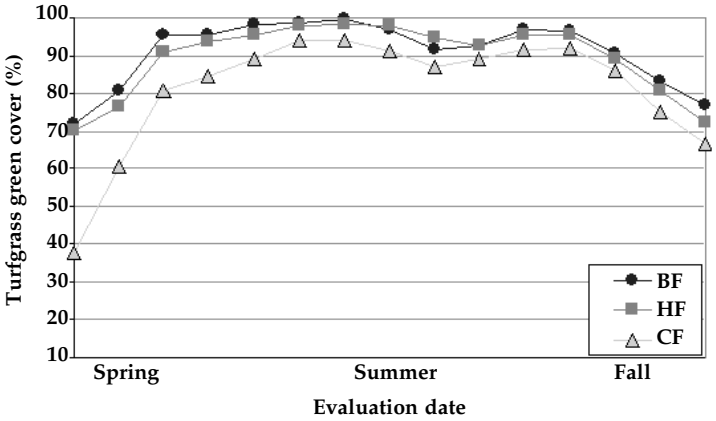


Figure 2. Turfgrass green cover for the blue fescue (BF), hard fescue (HF) and Chewings fescue (CF) treatments during spring, summer and fall of 2002.

The results of these studies indicated that blue fescue is the best companion grass to overseeded buffalograss in establishing a perennial mixture. The blue fescue-buffalograss mixture provided a very attractive, uniform, weed-free, and high-quality turf with extended growing season (Fig. 1). Buffalograss color retention was improved in the fall and spring (see photo on cover). All mixture plots exhibited above 65% green cover when the buffalograss was dormant, which extended the green cover from less than five months with monostand buffalograss to eight months when mixed with fine fescue (Fig. 2). The 4 and 6 lbs./1000 ft^2 seeding rates resulted in the best establishment for all fine fescue species. Therefore, we recommend 4 lbs./1000 ft^2 as the preferred overseeding rate. There was a positive linear relationship between seeding rate and fine fescue shoot density. Fall seeding resulted in the highest shoot density values. Therefore, we recommend fall as the preferred time to overseed buffalograss with fine fescues. Botanical composition of the mixtures stabilized around 70-80% fescue and 20-30% buffalograss a year after overseeding. The results of this study support the potential use of fine-leaf fescue and buffalograss mixtures as a means of enhancing turfgrass quality and extending green appearance when compared to monostands of buffalograss.

Editor's Notes: Shearman and Riordan are faculty members and Severmutlu is a graduate student in the Department of Agronomy and Horticulture.

Students: Study Sustainable Animal Systems in Norway!

by Charles Francis, Department of Agronomy and Horticulture, UNL

Is Norway only a land of fjords and ludefisk, so far north that it's always frozen except for a few short summer months? That's the impression many of us have gained from travelers' slides and National Geographic articles.

We had the chance to live and work in Norway for one year, and found that there is much more — including an extensive livestock industry that would be of interest to students here. In fact, only 3% of the land in Norway is useful for cultivation, while 15% is in grazing lands. Add the thousands of hectares of forest lands that are grazed in the summer, and livestock becomes an important part of the country's economy.

University of Nebraska has a cooperative agreement with the Agricultural University of Norway for exchange of students in the area of agroecology. The intensive fall semester at the university just south of Oslo includes two modules, and both relate closely to animal production. The first module is "Agroecology and Production Systems," and the second is "Agroecology and Food Systems."

In the first eight-week module, students focus on the farm and how to improve an integrated and sustainable production system. These plans involve both crops and livestock on most farms. There are lectures, many discussions, guided library reading, and a comprehensive group project where students work with a farm family to help plan improvements. Some farmers are interested in learning how to convert to organic production and to direct marketing for increased profits. Others want to improve their conventional systems.

Students make two or three visits to the farm, learn the goals and measure the resources available, and then plan

(continued on page 3)

alternative production strategies and enterprises to increase income and make the farm more sustainable. They usually develop at least three possible scenarios for the farmer to evaluate, and suggest the potential outcomes and implications of each. Much is learned from the farmers, as well as from working together as a student team.

As the title of the second eight-week module suggests, student groups focus on agroecology and food systems. They work with one of the counties in central or southern Norway. Based on early lectures and discussion to frame the questions, they interview farmers and ranchers, food processors, marketers, government officials, and consumers to understand the food system in that county. They develop an inventory of what is produced, how much food is exported and imported, and how this system could be modified to use more local food and improve farm income.

Students in these agroecology courses are generally seniors or beginning graduate students interested in the production, economic, environmental, and social dimensions of the food system. They come from many countries including Scandinavia, so there is a rich learning environment with a wide range of experiences and points of view. The classes are highly participatory, with major focus on discussions and learning rather than the one-way lecture. The field projects could be called "active learning" or "action education" since the emphasis is on problem-based learning around real-world cases. The results of the group projects are provided back to the farm families and the county officials so that the recommendations can be considered for implementation.

In the first intensive agroecology course in 1999, the student group planned a research and demonstration center using an abandoned school building and the surrounding property. After talking with the center's board and people in the neighborhood, they developed a plan for the future center. With help from architecture students, they developed a three-dimensional model of the future plans. Near the end of the semester, they organized a field day at the center with three elementary school classes and a number of people who lived nearby to plant apple trees and start the project implementation in motion. The political head of the county as well as other prominent people attended and gave speeches supporting the new project. This is action education at its best.

We invite students to learn more about this unique educational opportunity to spend a fall semester in Norway. Information is available from the International Affairs Office at UNL, 402-472-5358, or www.unl.edu/iaffairs/study_flyers/europe/agri-norway.htm.

Specific information on the agroecology semester or the two-year agroecology MSc program is available from Charles Francis, 402-472-1581, cfrancis2@unl.edu.

CGS Associates

Terry Klopfenstein received the American Society of Animal Science's 2003 Fellow Award for teaching.

High Plains Partnership: Conserving High-priority Species in Cooperation with Private Landowners

No single habitat association in North America is more diminished than the interior, temperate grasslands. Birds that nest there comprise the continent's fastest-declining suite of avian species. Several wide-ranging birds and mammals found in this region such as swift fox, lesser prairie-chicken, black-tailed prairie dog, and mountain plover have been evaluated for Endangered Species Act (ESA) protection. These circumstances signal the potential for large-scale species extirpations, costly ESA listings, and associated regulatory conflicts, if underlying ecological problems aren't addressed soon.

Although greatly diminished in both quality and quantity, relatively large acreages of mixed grasslands, shortgrass prairies and desert grasslands remain within the High Plains Region. More than 200 million acres capable of sustaining diverse native fish and wildlife communities still exist.

Because more than 90% of the High Plains is privately owned, it is essential that public-private partnerships be developed to meet the shared goals of conserving high-priority species in a non-regulatory manner, while enhancing the economic viability of agricultural production and other private land enterprises. The High Plains Partnership (HPP) is a joint effort among 11 state fish and wildlife agencies (AZ, CO, KS, MT, ND, NE, NM, OK, SD, TX, WY), the U.S. Fish and Wildlife Service (FWS), U.S. Department of Agriculture (USDA) agencies, and numerous private conservation organizations (including the Wildlife Management Institute, National Wildlife Federation, The Nature Conservancy, and Predator Conservation Alliance), and individuals.

The fundamental purpose of the HPP is to expand existing and develop new public-private conservation partnerships to conserve and enrich the natural heritage of the High Plains through cooperative ventures with private landowners.

Two basic and co-equal goals undergird HPP. First, the program will strengthen the economic viability of private land operations that are voluntarily managed to benefit high-priority species in the High Plains. This will be accomplished through a diverse array of incentives including cost-shared conservation practices, long-term conservation agreements, and bonus payments – all of which can improve the revenue potential of livestock and other agricultural operations. The other goal is to improve the status of high-priority species sufficiently to reduce or remove their need for ESA protection. Overarching these goals is the HPP mission of restoring, protecting, and enhancing at least two million acres of High Plains habitat within 10 years.

The HPP initiative will be supported primarily by current programs and resources, including the FWS Private Stewardship Grants Program, Landowner Incentive Program, State Wildlife Grants, and Partners for Fish and Wildlife Program, in addition to Farm Bill conservation programs administered by USDA. A key component of the HPP initiative is delivery of existing agricultural and wildlife conservation programs and resources to those landowners and locations where they will best benefit both priority wildlife species and private landowners.

In order to achieve this, HPP supporters propose the addition of two new grassland biologist positions for each High Plains state. These positions would be primarily responsible for delivering HPP project funding, ensuring that landowners are aware of opportunities for state, federal and private conservation programs, as well as for leveraging various resources to accomplish larger conservation projects.

In addition to the new positions for project delivery, HPP plans call for increased FWS allocations to fund on-the-ground, cost-shared habitat improvements. These funds likely will be administered through the FWS's Partners for Fish and Wildlife Program, which provides financial and technical assistance to private landowners, states, NGOs, and other conservation partners through private lands agreements, cooperative agreements and grant agreements. Through the Partners program, cost-shared conservation agreements with a minimum term of 10 years will be developed. Other conservation tools such as grassland easements and bonus payments for enhancement and protection of priority species' habitats will be funded through Farm Bill and other programs.

During the initial demonstration phase begun in 1998, implementation of the HPP focused on five southern High Plains states (CO, KS, OK, TX and NM). Using an array of short-term funding sources, the HPP partners have enrolled more than 90,000 acres in the five states in various private landowner agreements to benefit high-priority species and their habitats, as well as the cooperating landowners. At this writing, more than 150 landowners in the area are on waiting lists for HPP projects.

Also in the early stages of HPP, "Ranch Conversations" were held in the five states to interact with landowners and elicit their needs, recommendations, and preferences regarding conservation of high-priority species. The results of these gatherings provided much of the direction and design foundation for HPP, and facilitated modification of the ranking criteria for several state and federal conservation programs to emphasize High Plains goals and objectives. Examples of specific projects accomplished under HPP include implementation of rest-rotation grazing systems to improve residual nesting cover, livestock water development to protect riparian areas, prescribed burning for rangeland restoration, mechanical brush removal for grassland bird nesting and brood rearing, interseeding of forbs for improved grassland bird food production, and shrub establishment for lesser prairie-chicken habitat enhancement.

It is proposed that the majority of HPP funding be applied directly to on-the-ground-conservation projects, with one-half of the targeted two million acres to be enrolled during the first three years, depending on available funding. During the course of HPP implementation, expanded use of Farm Bill conservation program resources to address long-term objectives will allow the initiative to achieve its acreage goal. A close partnership among private landowners, state wildlife agencies, USDA, private conservation and landowner organizations, and FWS will provide the essential framework for this effort.

For additional information regarding the High Plains Partnership, see the Web site, www.r6.fws.gov/endspp/hpp, or contact Stephanie Harmon at 918-581-7458, ext. 229, or Pat Mehlhop at 303-236-7400, ext. 225, both of whom are with FWS.

Private Individuals Can Now Provide and Receive Conservation Technical Assistance with TechReg

Using the new TechReg online service, individuals interested in providing technical assistance to farmers and ranchers on behalf of USDA can register and become certified, and USDA customers can find these certified providers. The 2002 Farm Bill authorized USDA to use Technical Service Providers (TSPs).

According to the TechReg Web site (techreg.usda.gov), the public interest to do conservation work and the government's financial commitment are both at historic levels. The Farm Bill increased conservation investment $1.8 billion to $3.9 billion. Helping build a new industry of certified professionals from the private sector, non-profit organizations, and public agencies to provide direct technical assistance and deliver conservation activities will help distribute this money quickly and efficiently.

Technical assistance includes conservation planning and design, layout, installation, and checkout of approved conservation practices. NRCS and conservation districts have traditionally provided these technical services, and will continue to do so. What is new is that USDA will now reimburse producers for technical assistance provided by certified TSPs. See the Web site for details.

Source: techreg.usda.gov

Legumes Boost Quality in Bromegrass Pastures

Summer can offer slim pickings for hungry beef cattle in eastern Nebraska, as the smooth bromegrass that dominates the pastures they graze wears thin. University of Nebraska researchers are exploring ways to diversify those pastures to provide more nutritious, reliable fare through the summer.

Researchers are seeking the right mix of vegetation to supplement bromegrass and the best grazing system to take full advantage of pastures throughout the season.

Smooth brome, which has become dominant in eastern Nebraska pastures over the past 100 years, provides plentiful, high quality forage during the critical spring calving season and often again in the fall. But it suffers a "summer slump in quantity and quality," said Range Scientist Walter Schacht. That leads to a decline in cattle performance.

Institute of Agriculture and Natural Resources research focused on interseeding three legumes — alfalfa, birdsfoot trefoil and kura clover — into the bromegrass in NU test pastures. Researchers compared cattle performance on these interseeded pastures with performance on regular pasture. Results were encouraging, said Forage Scientist Bruce Anderson.

"The legumes managed to boost productivity, feed availability and the quality of the grazing forage in those pastures" from July through September, Anderson said.

Legumes helped improve beef gains by 25 to 40 pounds per acre. "We figure 45-50 cents additional net income for each extra pound," Anderson said. "While that isn't earthshattering, we're still talking about $10 to $20 an acre of additional income."

Unlike brome, legumes don't require fertilizing once they are established, which cuts costs.

Unfortunately, it's difficult to plant and establish legumes in existing bromegrass. Research is continuing to improve the effectiveness of interseeding. Meantime, researchers are finding promise in using native warm-season grasses such as indiangrass, big bluestem and switchgrass to complement bromegrass.

One key: finding a grazing system that makes the best possible use of both cool- and warm-season grasses.

"Historically, we've promoted a simple grazing system that says graze the cool-season grass in spring, the warmseason grass in the summer and back to the cool-season grass in the fall," Anderson said.

Research has found, though, that it's better for the pastureland and, ultimately, the cattle, to use a rotational approach that gives grasses time to recover from the grazing. NU researchers developed an early-season grazing strategy for warm-season tallgrasses that improves the efficiency of their use through the growing season.

Cattle begin spring grazing bromegrass and move in midto late May to briefly graze the warm-season grasses that are just greening up. Then it's back to the smooth brome for several weeks, finishing the spring growth of the brome and allowing the warm-season grasses to regrow so they can provide feed for the rest of the summer. Then it's back to brome in the fall.

Early grazing on warm-season grasses helps slow their rapid growth and make them leafier and more nutritious later.

Also, scientists are developing improved range grass varieties. Ken Vogel, a USDA-Agricultural Research Service geneticist in UNL's Department of Agronomy and Horticulture, has developed a couple of big bluestem varieties that show signs of improving animals' performance during summer. A new switchgrass variety — Trailblazer — has proved more digestible than earlier varieties.

This NU research already is paying dividends. Anderson and others documented about a $7 million economic benefit among 1,600 graziers who participated in a series of NU Cooperative Extension workshops based on IANR research. Those producers manage about 700,000 acres and 142,000 cattle.

"This is basic fine tuning that can be achieved through good management and a minimum amount of high-cost inputs," Schacht said.

The NU Foundation's Sampson Endowment helps fund this research.

Source: This article, authored by Daniel R. Moser, is reprinted from the September 2003 issue of *Research Nebraska*, published by the Communications and Information Technology unit, UNL.

Nebraska Agriculture Industry Partnership Formed

In 2001, Congressman Tom Osborne pulled together a group of Nebraskans concerned about the future of the livestock industry in the state to discuss the issues. This group included representatives of livestock, grain, banking, insurance, government and membership organizations.

The group identified a number of objectives, one of which was the development of a proactive education and awareness effort to help all Nebraskans better understand the importance and impact of livestock producers and livestock production on the state's well being. The Nebraska Agriculture Industry Partnership (NAIP), a not-for-profit coalition, was recently formed to accomplish this objective.

Members of NAIP Executive Committee are: Dave Buchholz, David & Associates (chairman); Cap Dierks, former state senator; Dick Fleming, University of Nebraska (Ag Education, Leadership, Communication); Chuck Hassebrook, Executive Director, Center for Rural Affairs; Jim Jenkins, restaurateur/branded beef (Nebraska Corn-Fed Beef); Rod Johnson, Executive Director, Nebraska Pork Producers Association; Susan Joy, General Manager, Nebraska Poultry Industries; Greg Ruehle, Executive Director, Nebraska Cattlemen; and Gregg Sherwood, Aurora Co-Op (representing feed grain interests).

To learn more or get involved, see www.nebraska livestock.org.

Source: www.nebraskalivestock.org

UNL Scientists Earn $1.8 million NSF Grant to Study Sandhills Ecosystem

Weather, water, wind, sand and grass have shaped and reshaped Nebraska's Sandhills over thousands of years. University of Nebraska-Lincoln scientists are launching research to understand these and other complex interactions that drive this rare ecosystem.

The National Science Foundation has awarded university scientists $1.8 million for a four-year comprehensive study of this 20,000-square-mile region. While expanding knowledge of the Sandhills is a primary goal, researchers believe results also could help expand understanding of broader potential impacts of global climate change.

"This is a study of sand, grass and water and how they interact to stabilize the Sandhills. We want to know how climate interacts with processes like overgrazing and fire to devegetate and destabilize this massive sand dune system, and, on the other hand, how vegetation returns to bare, moving sand to stabilize the system," said David Wedin, an Institute of Agriculture and Natural Resources ecosystems ecologist. He will head the 15-member team for this Sandhills Biocomplexity Project along with co-leaders Geoffrey Henebry, a School of Natural Resources landscape ecologist, and David Loope, a geologist in the geosciences department.

Today the Sandhills are stabilized by a protective cover of native grasses, but the dunes have gone from grass-covered to barren several times over the millennium. This large-scale study will focus on the links between the region's grass cover, wetlands, groundwater and regional climate. Ultimately, the UNL team hopes to develop a better overall picture of how climate and environment interact to create and maintain this fragile ecosystem.

The grant officially begins in September and builds on years of Sandhills research by team members and other UNL scientists. Next spring, scientists will establish research plots at the university's Barta Brothers Ranch near Rose and the Gudmundsen Sandhills Laboratory near Whitman.

Some research plots will help researchers study what happens to the system when vegetative cover disappears. Other researchers will map dune movement over the past 2,500 years and examine lake sediments to chart the timing of past droughts.

The team has many questions and they're all interrelated. For example, researchers want to know whether water evaporating from wetlands and wet meadows might reduce impacts of short-term drought by altering local climate. Conversely, they hope to learn whether loss of grass cover and wetlands can intensify a drought, leave sand bare and destabilize dunes.

From climate and water to drought and range ecology, the research team features diverse expertise. This range of expertise and the university's extensive Sandhills research facilities are an ideal combination for this project, Wedin said.

He and many scientists who will work on the this project have experience with research in the Sandhills but this is the first time they've teamed up to develop an integrated, interdisciplinary understanding of what keeps the Sandhills from turning into a barren desert.

The project features a key educational component, Wedin said. Coordinated through UNL's Nebraska Earth Science Education Network, it will involve elementary and high school teachers, undergraduate science majors and others who can learn from the project and share information with students.

As part of this project, the UNL team is building partnerships with Sandhills groups such as the Sandhills Discovery Foundation and the Sandhills Task Force, Wedin said.

More information about this Sandhills Biocomplexity Project is available on the Web at sandhills-biocomplexity.unl.edu/home.htm.

Editor's Notes: The above is excerpted from a 9/2/03 news release, IANR News and Publishing. Dave Wedin is a member of the Center for Grassland Studies Policy Advisory Committee.

Online *Forage and Grazinglands* Journal Part of Plant Management Network

The Plant Management Network is a new multidisciplinary online resource for applied plant science information and communication. The subscription-based network offers an extensive searchable database comprised of thousands of web-based resource pages from the network's partner universities, companies, and associations. In addition, the network's three peer-reviewed citable journals, *Plant Health Progress, Crop Management*, and *Forage and Grazinglands*, provide credible current information in areas important to practitioners, policy makers, and the public.

Forage and Grazinglands publishes manuscripts (currently being solicited) similar to those previously published in the *Journal of Production Agriculture* as well as articles and product announcements of general interest to *Forage and Grazinglands* readers. Peer-reviewed categories are: Forage and Grazinglands Research (research affecting practical management recommendations), Forage and Grazinglands Reviews (comprehensive reviews of forage and grazinglands issues), Forage and Grazinglands Guides (guides, decision tools, and recommendations for practitioners), and Forage and Grazinglands Briefs (short reports on new findings and recommendations relevant to forage and grazinglands practitioners). Non peer-reviewed categories are: Variety Trials (accepted subject to review for consistency of format and results), Forage and Grazinglands Perspectives (opinions on issues impacting forage and grazinglands), Forage and Grazinglands News (new products, label revisions, and other industry news), and Letters (letters to the editor).

Members of the Editorial Board of *Forage and Grazinglands* are appointed by the Crop Science Society of America and the American Society of Agronomy, and include USDA-ARS scientist Rob Mitchell, a CGS Associate.

To learn more about the Plant Management Network, see www.plantmanagementnetwork.org.

Source: www.plantmanagementnetwork.org

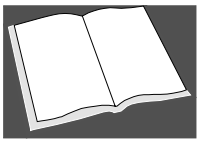
Info Tufts

According to Steve Chick, USDA-NRCS State Conservationist, the new Farm Bill has resulted in a substantial commitment to conservation funding. The Environmental Quality Incentives Program, Ground and Surface Water Conservation Program, Wetland Reserve Program, Wildlife Habitat Incentives Program, Watershed Rehabilitation Program, and Grassland Reserve Program in total brought at least $28,338,255 in cost-share assistance to Nebraska farmers and ranchers in the federal fiscal year (FY) ending September 30, 2003. The Conservation Reserve Program alone resulted in additional $67.9 million in annual rental payments in Nebraska this year. So the USDA's commitment to conservation in Nebraska was nearly $100 million in FY 2003.

With the establishment of the Nebraska Sandhills RC&D (announced with six other newly authorized RC&D areas by USDA Undersecretary Mark Rey at the National Association of Resource Conservation and Development meeting in late July, 2003), Nebraska is now completely covered with RC&Ds. The Panhandle RC&D was the first in 1970.

Dr. Bryan Van Deun, formerly an executive with the University of Nebraska-Lincoln Alumni Association, has just been hired as Vice President of Development for Pheasants Forever. Van Deun looks at this as "an extraordinary opportunity for me to help make a difference for the future of wildlife, habitat, and our hunting heritage."

Resources



An Organic and Sustainable Practices Workbook & Resource Guide for Livestock Systems. April 2003. Workbook is designed for use by organic and transitional producers with livestock or mixed crop and livestock operations. Prepared by the National Center for Appropriate Technology (NCAT). Online at attra.ncat.org/attra-pub/PDF/livestockworkbook.pdf.

An excellent source of online information on all USDA-NRCS conservation programs, including new materials on the Grassland Reserve Program, is www.nrcs.usda.gov/programs/farmbill/2002/products.html.

The Consortium for Agricultural Soils Mitigation of Greenhouse Gases provides the information and technology necessary to develop, analyze and implement carbon sequestration strategies and greenhouse gas emission reductions. Learn more about this consortium of nine land-grant universities (including UNL) and the Pacific Northwest National Laboratory, and sign up to have the free newsletter e-mailed to you, at www.casmgs.montana.edu. Speaking of carbon sequestration, did you know Nebraska has a Carbon Sequestration Advisory Committee? Information about carbon sequestration activities in Nebraska is at www.carbon.unl.edu.

Calendar

Contact CGS for more information on these upcoming events:

2004

Jan. 21-25:	Sports Turf Managers Association Annual Conference, San Diego, CA
Jan. 24:	Kansas Winter Grazing Conference, Salina, KS.
Jan. 24-30:	Society for Range Management 57th Annual Meeting, Salt Lake City, UT, www.rangelands.org/events.shtml

If you have articles, events, resources, CGS Associate News, or other items you would like to submit for inclusion in future issues of this newsletter, please contact the editor, Pam Murray, at the CGS office.

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