Turfgrass and Landscape Management Degree Program at UNL

by Robert (Bob) C. Shearman, Department of Agronomy and Horticulture, UNL

For several years, we have been tossing around the idea of creating a new degree program in turfgrass management at the University of Nebraska–Lincoln. Several universities have created turfgrass majors and have had great success in doing so, increasing student numbers and interest in their programs. Their success piqued our interest in doing the same thing at Nebraska. As we gathered together to discuss developing a degree program in turfgrass management, one of our colleagues, Professor Kim Todd, suggested the idea of a major involving turfgrass and landscape management. She felt it would be beneficial for students to have exposure to both subject areas, because turfgrasses and landscape plants are so closely integrated in the green industry. The more we discussed it, the more it made sense to us. Students would benefit by having a background in both turfgrass and landscape management, and the green industry would benefit from having individuals who were even more effective in dealing with real-world situations involving turfgrass and landscape plant management.

In the fall of 2006, our team – Kim Todd, Roch Gaussoin, Garald Horst, Brad Jakubowski and Bob Shearman – began the process of developing a curriculum for the new undergraduate degree program in turfgrass and landscape management. In the spring of 2007, the proposed degree program cleared the Department of Agronomy and Horticulture Curriculum Committee. Soon after, it was approved by the College of Agricultural Sciences and Natural Resources Curriculum Committee and received support from Dean Steve Waller. Vice Chancellor John Owens has recommended the program for consideration by the University Academic Planning Committee, whose members will review the degree program for approval at the October 17th meeting. We are hopeful that the program will be ready to start recruiting students by the second semester of 2008.

The purpose of the proposed degree program is to provide students with education and skills based on science and design in the management of turfgrass and landscape plants in a comprehensive set of situations, and pertinent business aspects related to careers in the industry. Turfgrass and landscape plants and their management are closely related and highly interactive in urban, suburban and rural environments. At present, students employed after completing their education in either turfgrass or landscape management, but not both, often find themselves lacking in knowledge and skills critical to the other field. In the Turfgrass and Landscape Management major, students will be sharing coursework and experiences in key courses that will give them a broader perspective and working knowledge for greater success in their chosen careers. In addition, students in this degree (continued on page 4)
FROM THE DIRECTOR

In a previous column, I wrote about the 2007 Farm Bill that was being discussed in Congress, especially the research title and the need for continuing support of research. (Incidentally, this bill is still moving through the U.S. Congress at the present time). Both federal and state governments have been long-time supporters of agricultural and related research areas. However, that support has not increased significantly enough over the years to cover the urgent needs of producers, processors and the marketing industries, as well as our students.

Additional help to assist with these priority areas has come from private resources. Actually, a large percentage of support for research and education today is received from private donations. These funds are provided by private individuals, companies, foundations and other sources. They are given to support facilities, professorships, lectureships, student fellowships and scholarships, travel funds, and numerous other programs and activities. These types of funds are donated primarily to provide the margin of excellence needed for programmatic activities that would not be possible with the basic funding support provided by governmental agencies and tuition income.

The Center for Grassland Studies has benefitted significantly from these kinds of funds. Just recently, we were able to bring Burke Teichert, an internationally recognized individual, to our campus to present the Leu Distinguished Lecture and to meet and discuss with faculty, staff and students various aspects of farm and ranch management, especially as it relates to grasslands, livestock and wildlife management. Teichert was born and reared on a ranch in Wyoming, but has gained a wealth of experience throughout his career with universities and private industry. He is currently the Operational Vice President for Farm Management Company and oversees operations in Canada and Argentina and Montana, Wyoming, Utah and Nebraska within the United States. He has also served as a consultant in Central and South America, England, Australia and New Zealand.

Burke’s visit was made possible through a generous donation by the Frank Leu family to the University of Nebraska Foundation. Faculty and students associated with the Center have benefitted from other distinguished individuals who have presented the Leu Lectureship in previous years. Also, the Sandhills Task Force, among others, has provided scholarships for students in our Grazing Livestock Systems major. Similarly, through private funds, scholarships and support services have been made available to our students in the Professional Golf Management major. We are a better university and are better able to serve our clientele and students as a result of this generous support. I might add that there is a continuing and great need for this kind of support to help meet the priority needs for those we serve.

I would be remiss if I did not take this opportunity to thank these donors who have been so generous in the past as well as those who will continue that legacy in the future.

M. A. Massengale

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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.
New Farm Bill Should Continue Support for Grassland Management

by Duane Hovorka, National Wildlife Federation

When Congress finishes writing a new five-year Farm Bill (hopefully this year), it will put in place policies that will influence grasslands for years to come.

In states like Nebraska, Farm Bill conservation programs are by far the largest source of conservation funding. USDA conservation programs provide more than $120 million per year in incentives to help Nebraska farmers and ranchers adopt better conservation systems.

Wildlife and conservation organizations are pressing Congress to add $6 billion to the five-year budget for conservation programs. The money is needed to continue two programs that would otherwise expire, the Wetlands Reserve Program and the Grassland Reserve Program, and to address the large backlog of applications for other conservation programs.

In July, the House of Representatives passed its version of a new Farm Bill. It includes about $4.5 billion more for USDA conservation programs, while making only a few changes in most of those programs.

The Senate Agriculture Committee is considering its own version of the Farm Bill, and full Senate action will follow when the committee advances legislation. However, Senators on the Agriculture Committee appear to be less willing to provide needed funding for conservation programs, and that could put some of the programs below at risk of being cut or entirely eliminated.

Based on the House-passed bill (HR 2419) and early versions of the Senate committee bill, here is the outlook for some of the key USDA conservation programs that benefit grasslands.

**Conservation Reserve Program.** The nation’s largest private lands conservation program has provided grassland habitat on about 1.35 million acres in Nebraska – until September 30, 2007, when CRP contracts expired on about 150,000 acres of CRP. In Nebraska, most CRP contracts are planted in a mixture of native grassland species.

In Congress, the House and Senate appear poised to continue the program at the current authorized level of 39.2 million acres. However, USDA did not hold a general CRP sign-up this year, and may not hold one next year. Contracts on nearly 3 million acres expired in 2007 nationwide, leaving about 34 million acres enrolled in the program.

Emerging threats to the CRP include proposals in Congress to allow the land to be harvested for biofuels production. By leaving little or no winter cover for wildlife, the proposals could substantially reduce the wildlife value of CRP contracts.

**Grassland Reserve Program.** The program was created in the 2002 Farm Bill, with a goal of enrolling 2 million acres of grassland and a budget of $254 million over five years. USDA spent all of the $254 million, but was able to enroll just 1 million acres nationwide.

In Nebraska, the program has focused on enrolling high quality native tallgrass prairie in permanent easements that will maintain the land forever as prairie, but allow the landowner to continue to use and manage the grassland – typically for livestock or forage production. About 6,925 acres of grassland are enrolled in the GRP in Nebraska.

There is support for the program in Congress, and the House-passed Farm Bill would authorize the enrollment of another 1.34 million acres over the next five years. In the Senate, proposals would continue the program at between $240 and $382 million (roughly 0.9 to 1.5 million acres over five years).

**Environmental Quality Incentives Program and Conservation Security Program.** The Environmental Quality Incentives Program (EQIP) is USDA’s second-largest conservation program. It provides cost-share to farmers for installing conservation measures, and incentive payments to adopt better management practices. EQIP funds a variety of practices, from the installation of livestock waste lagoons and center pivot irrigation to integrated pest management and nutrient management on cropland.

In Nebraska, one focus has been on the adoption of managed rotational grazing strategies. EQIP funds cost-share to install cross-fencing, wells and watering facilities to improve grazing management, as well as brush management and prescribed burns.

The Conservation Security Program (CSP) was created in the 2002 Farm Bill to reward farmers and ranchers willing to take a whole-farm, multi-resource approach to conservation. The program was implemented on a watershed basis, and has been used in southeast Nebraska to help farmers adopt rotational grazing, water conservation, and low-till farming practices.

The House Farm Bill would continue EQIP largely unchanged, and substantially increase funding levels. However, it would eliminate funding for new CSP enrollments for four years – essentially putting the program on the shelf.

In contrast, Senator Tom Harkin, Agriculture Committee Chair, proposed better coordinating the two programs by eliminating the overlap in benefits provided. Senator Harkin’s proposal would streamline and simplify the Conservation Security Program, and provide for a nationwide sign-up of 13 million acres per year.

EQIP would continue to focus on providing cost-share and incentive payments to help farmers and ranchers adopt conservation practices. CSP would provide stewardship payments to help the most sustainable farmers and ranchers adopt the highest level of conservation systems. Both programs would continue with a modest increase from current funding levels.

The differences between the House and the Senate on the treatment of these working-lands programs could be the biggest conservation issue needing to be resolved between the House and Senate versions.

(continued on page 4)
Turfgrass and Landscape Management Degree Program at UNL (continued from page 1)

program will select either the Turfgrass Management or Landscape Management Option, allowing them to focus on important aspects that are distinct to their selected career path.

To our knowledge, this proposed major is unique among institutions across the country. Certainly, other institutions offer degree programs in either turfgrass management or landscape management, but they do not offer the interactive aspects that make this degree program distinctive and unique. Because the turfgrass and landscape management industries are becoming increasingly interrelated, offering a degree program that prepares students for this cooperative and interactive environment responds favorably to current trends in the green industry and prepares students for continuing growth in these careers. The turfgrass and landscape industries strongly support this degree program, since it will provide well-educated graduates for employment in a field with increasing demand for qualified individuals. We received numerous support letters from members of the landscape and turfgrass industries indicating their support for the proposed major and their encouragement to develop it at UNL.

Upon completion of the Turfgrass and Landscape Management degree program, students will be prepared to work as superintendents, managers, directors, producers, technical representatives, salespersons, educators and entrepreneurs in the turfgrass and landscape management industries. Positions are and will continue to be available in such public sector venues as parks, municipal golf courses, schools, universities, city planning departments, and state departments of roads. Private career opportunities include commercial developments and office parks, private golf courses, residential communities, botanical gardens and arboreta, and individual estates.

Currently, the demand for graduates by the green industry far exceeds our current output of students. This is due, in part, to the continuing growth of the green industry, a stronger and increasing focus on sports turf management, golf course care, lawn care operations, “green buildings” and sustainable landscapes, and a lack of awareness on the part of potential students concerning career path opportunities in this industry. We continue to place students locally, nationally and internationally, and the majority of our spring graduates have secured a position of their choice at the beginning of the spring semester, forcing many good companies to keep their employees for an additional year. The Turfgrass and Landscape Management degree program will increase the visibility of this broad career field, and enhance our ability to market the integrated programming beyond the specificity of the existing options at the department level. We believe this major will be appealing to today’s students as an easily accessible and readily understandable “Google” key phrase, rather than forcing potential students to dig deeper into options within the currently available Horticulture major. Furthermore, because of the direct positive impact of this degree program on the green industry, we expect an increase in the already enthusiastic support we have received from those in that industry.

Editor’s Note: For more information, contact Dr. Shearman, 402-472-0022, rshearm1@unl.edu.

New Farm Bill Should Continue Support for Grassland Management (continued from page 3)

SodSaver. Proposed new “SodSaver” provisions would address the current incentives provided by Farm Bill commodity and subsidized crop insurance programs for farmers to break out native prairie and put it into crop production. The House Farm Bill would deny federal crop insurance for four years on native grasslands newly converted to cropland. Senator Harkin’s draft committee bill would permanently deny commodity and insurance payments on range and native prairie newly converted to cropland.

Wildlife Habitat Incentives Program. This program provides cost-share to landowners to restore and protect fish and wildlife habitat, and has been used to restore high-diversity native prairies in Nebraska, among other projects. Both House and Senate bills would continue the program at current funding levels.

Wetlands Reserve Program. The program has protected over 53,000 acres of wetlands, wet meadows, and associated grassland in Nebraska. The House Farm Bill would continue the program at the current authorized level, up to 250,000 acres per year nationwide. The Senate appears poised to take the same approach.

Editor’s Note: Duane Howorka, from Elmwood, Nebraska, is Farm Bill Outreach Coordinator for the National Wildlife Federation. He has been a member of the CGS Citizens Advisory Council since its inception in 1995.

Grassland Conservation by the Numbers

According to Steve Chick, USDA Nebraska State Conservationist, the agency’s Environmental Quality Incentives Program, Conservation Security Program, and Wildlife Habitat Incentives Program contracts have been used extensively over the past decade to help better manage grazing land in Nebraska. Those contracts include:

- 1,994 wells, 5,942 water tanks, 4,356 miles of water pipe, and 3,320 miles of cross-fencing to improve grazing land management ($36.7 million)
- Brush management on 74,618 acres ($3 million)
- Prescribed burns on 35,201 acres ($165,386)
Another Great Nebraska Grazing Conference in 2007!

The seventh annual Nebraska Grazing Conference held August 7-8, 2007 was another smashing success, with 250 participants from several states, 25 presenters, and 22 sponsors. As was the case last year, there was good representation of students in the audience. Topics included grazing management in wet and dry climates, conducting a pasture inventory, managing soil and water in range and pasture systems, goat management, technology tools for grazing, ethanol’s effect on cow-calf producers, modifying livestock grazing behavior to benefit wildlife and meet land management objectives, stocking/restocking according to weather and cattle cycles, leases for resource management, and managing with fire. The conference concluded with a panel of experienced, seasoned graziers plus active, developing graziers looking back at past successes and foreseeing future challenges and opportunities.

Proceedings from the 2007 and previous conferences are still available for purchase; they contain the material submitted by most of the presenters prior to the conferences. The conference web site (www.grassland.unl.edu/grazeconf.htm) contains the programs for each conference. To order proceedings, send a check payable to Nebraska Grazing Conference to the CGS office. (For orders outside the U.S., check with the Center on cost prior to ordering.)

If you have not attended previous conferences but would like to be on the mailing list to receive notice of next year’s conference, to be held in the same location on August 12-13, simply send your name and address to the CGS office. Details of the 2008 program will be posted on the conference web site as they become available early next year.

The Nebraska Grazing Conference has several sponsors including this year’s conference underwriters: Center for Grassland Studies, Nebraska Game and Parks Commission, Nebraska Grazing Lands Coalition (made possible by a Nebraska Environmental Trust minigrant), and Ridley Block Operations.
New Ph.D. Specialization in Applied Ecology at UNL

by Tala Awada, James Brandle and Larkin Powell, School of Natural Resources, UNL

Applied Ecology is the newest Ph.D. specialization in the School of Natural Resources, and the Department of Agronomy and Horticulture, University of Nebraska–Lincoln. This specialization is intended to provide students with a multidisciplinary understanding of ecological principles and how they can be applied to the conservation and management of our terrestrial and aquatic ecosystems. The mission is to prepare students to attain an advanced knowledge in ecological science and management, and to support interactions and cooperation among scientists and students working on applied ecological problems.

The integrated approach to the conservation and management of our natural resources should appeal to students interested in the areas of agroforestry, agroecology, aquatic and stream ecology, conservation biology, forest ecology, grassland ecology, wildlife ecology, and ecosystem science. Faculty members in Applied Ecology teach many of the courses associated with the specialization. Additional courses are also available throughout UNL that add both breadth and depth to the specialization. Individualized programs are developed by the students and their supervisory committees in accordance with the requirements of the Ph.D. degrees in Natural Resources and in Agronomy and Horticulture, as detailed in the Graduate Studies Bulletin. Students are encouraged to take a broad array of classes that will provide the background to address ecosystem issues from various perspectives.

The School of Natural Resources and the Department of Agronomy and Horticulture are housed on UNL’s beautiful East Campus, and they provide excellent laboratory, office, classroom, and field facilities in addition to museum collections to support research, teaching and outreach regarding natural resources. More information is available online at snr.unl.edu/degrees/grad_Applied_Ecology.asp.

Nebraska Mentoring Program for Graziers

by Roger Chesley, Nebraska Grazing Lands Coalition

Have you ever felt the need to change your operation to meet some financial or conservation goals? Maybe you went to a UNL extension meeting or your child came home from college with a suggestion to try something new but you would first like to talk with someone who has already done or is doing it. You know there will probably be a trial-and-error phase, and you just can’t afford to make too many mistakes.

Because these scenarios are familiar to many farmers and ranchers in this state, the Nebraska Grazing Lands Coalition (NGLC) endorsed the idea of a mentoring program presented a few years ago by NGLC Board member Lynn Myers of Lewellen and Dr. Pat Reece, then range and forage specialist at the UNL Panhandle Research and Extension Center.

With funding from a USDA SARE grant, the NGLC started the mentoring project in collaboration with UNL extension and the Natural Resources Conservation Service. Myers and Reece, who wrote the SARE grant, chose the first 12 families as mentors for the pilot project, targeting the western half of the state. The concept of the project was that some ranchers are more comfortable talking with other ranchers when it comes to making management or resource changes. These early mentors agreed to talk with anyone who had questions about what they were doing in certain fields.

NRCS published a brochure listing the mentors and the areas of expertise they were available to share. The original list of topics in the brochure included:

1. Goal setting/decision making
2. Monitoring resources and record keeping
3. Drought management
4. Grazing management strategies and systems
5. Economics of grazing management
6. Grazing annual forages or crop residue
7. Water and fence development/placement
8. Livestock movement and handling facilities
9. Complementary grazing/supplementation
10. Using livestock as a management tool
11. Wildlife habitat and hunting enterprises
12. Plant and animal pest management
13. Marketing
14. Labor management
15. Self assessment/stress management

Additional topics added since the first brochure was published are:

1. Goat grazing
2. Natural/organic
3. Irrigated pasture and forage grazing
4. Ecotourism
5. Invasive plant management
6. Prescribed burning
7. Generational change/family farm-ranch transition

We have held several planning sessions to expand the program. An outcome of one of these sessions was a new name for the program, now called Cowboy Logic: A Nebraska Grazing and Ranch Management Mentoring Network. The program’s web site (www.ranchmentors.org) has been modified to reflect the name change and the addition of names and bios of our new mentors. At a planning session in August 2007, we asked original and prospective new mentors what they needed from NGLC to make this program a success. The original mentors said they were not comfortable with being considered mentors because they also learn from the people they were sharing with. So at the time of this article, we are trying to come up with a different term.

One common statement from the people we have asked to be “new sharers” is that they felt this is a way they could repay the people who helped them through the years. It reminded me of the time I borrowed something from one of my neighbors and I felt I needed to pay for the use of it. That person told me that when his uncle had loaned him something and he offered to pay for it, his uncle told him that the “payment” was for him to pass the favor on. (Hmmm, I think they went on to make a movie on that!)

2003 National Resources Inventory Information Online

The USDA Natural Resources Conservation Service has made the results of the 2003 National Resources Inventory (NRI) available online at www.nrcs.usda.gov/technical/NRI. The NRI is a statistical survey of natural resource conditions and trends on non-Federal land in the United States. Major categories are Land Use, Soil Erosion, and Wetlands. The following is excerpted from the Land Use category.

The NRI provides nationally consistent statistical data on how these lands are used and on changes in land use patterns for the period 1982-2003. To assess conservation issues on non-

Federal rural lands, this land use information must be analyzed in conjunction with other NRI data elements. Land uses of particular interest are those involving the production of agricultural and timber products that are the foundation of our Nation’s agricultural economy.

Key Findings:

- The contiguous 48 states cover 1.9 billion acres; about 71% of this area is in non-Federal, rural land uses – nearly 1.4 billion acres.

- Non-Federal rural lands are predominantly forest land (406 million acres), rangeland (405 million acres), and cropland (368 million acres).

- The Nation’s cropland acreage declined from 420 million acres in 1982 to 368 million acres in 2003, a decrease of about 12%. The net decline between 1997 and 2003 was 8 million acres, or about 2%.

- The percentage of total cropland that is non-cultivated has continued to increase since 1982. Non-cultivated cropland accounted for almost 16% (58 million acres) of cropland acreage in 2003, up from 11% (44 million acres) in 1982.

- Approximately 50% of the Nation’s cropland is concentrated in just two of the 12 Major River Basins – the Missouri and the Souris-Red-Rainy/Upper Mississippi. The Souris-Red-Rainy/Upper Mississippi Basin is over 50% cropland.

- Approximately 52% of the Nation’s non-Federal forest land is concentrated in just three of the 12 Major River Basins – the South Atlantic-Gulf, New England/Mid Atlantic, and the Ohio/Tennessee River. The South Atlantic-Gulf Basin is about 53% non-Federal forest land, and the New England/Mid Atlantic Basin is about 57% non-Federal forest land. Nearly 75% of the Nation’s non-Federal forest land is located east of the Mississippi River.

- Approximately 72% of the Nation’s non-Federal rangeland is concentrated in three of the 12 Major River Basins – the Missouri, the Texas-Gulf/Rio Grande, and the South Atlantic-White-Red. The Texas-Gulf/Rio Grande Basin is about 55% non-Federal rangeland. Approximately 99% of the Nation’s non-Federal rangeland is located west of the Mississippi River.

- During the two decades between 1982 and 2003, non-Federal acreage devoted to grazing uses – rangeland, pastureland, and grazed forest land – declined from 611 million acres to 576 million acres, a decrease of over 5%. During the six-year period between 1997 and 2003, the net decline in grazing land acreage was about 1% or a little over 1 million acres per year.
2007 CGS Fall Seminar Series

The 13th annual Center for Grassland Studies fall seminar series is in full swing, with presentations on topics ranging from ethanol’s effect on cow-calf producers to effects of grassland management on birds.

The seminars are free and open to the public. They are held most Mondays during the fall semester, 3 to 4 p.m., at the University of Nebraska-Lincoln’s East Campus Union. The entire schedule, which appears below, is subject to change; updates are posted on the web at www.grassland.unl.edu/semf07.html.

DVDs of the seminars will be available for checkout from the Center’s reference center. For more information, contact the Center.

August 27 – M.A. Massengale, Center for Grassland Studies, UNL, “Introduction and Orientation”

Sept. 10 – Richard Sutton, Dept. of Agronomy and Horticulture, UNL, “Roof Top Prairie”

Sept. 17 – Darrell Mark, Dept of Agricultural Economics, UNL, “Ethanol’s Effect on Cow-Calf Producers”

Sept. 24 – Pat Reece, Dept. of Agronomy and Horticulture, Panhandle Research and Extension Center, UNL, “Observations on Grazing Myths and Practice: Three Steps to Success”

Oct. 1 – Burke Teichert, Operational Vice President, Deseret Ranches, “Managing Rangelands with Cattle and Wildlife for Ecological Sustainability and Economic Return”

Oct. 8 – Marian Langan, Director, Spring Creek Prairie Audubon Center, “Nebraska’s Tallgrass Prairie: History or Legacy “


Oct. 22 – No seminar (semester break)  

Oct. 29 – Bruce Anderson, Dept. of Agronomy and Horticulture, UNL, “Forage Issues in Mainland China”

Nov. 5 – No seminar

Nov. 12 – Jim Stubbendieck, Dept. of Agronomy and Horticulture and Director, Center for Great Plains Studies, UNL, “Experiences with Wildlife in South Africa”

Nov. 19 – Brad Jakubowski, Dept. of Agronomy and Horticulture, UNL, “Opportunities in Sports Turf Management”

Nov. 26 – Luciana Toda (Graduate Student), Dept. of Entomology, UNL, “Buffalograss Resistance to the Chinch Bug”

Dec. 3 – Larkin Powell, School of Natural Resources, UNL, “Effects of Grassland Management on Upland Game Bird Production”

Dec. 10 - Neal Bryan (Graduate Student), Dept. of Agronomy and Horticulture, UNL, “Grassland to Woodland Transitions: Nebraska and the World”