

WILD Nebraska Grasslands

by Bill Vodehnal, Nebraska Game and Parks Commission

Native grasslands are an integral part of Nebraska's landscape and represent a collage of grasses, grass-like plants, forbs and shrubs. These prairies once occupied our entire state, and currently about 70% of our prairies have been destroyed or significantly degraded. Fifteen distinct grassland communities occur in the state and some, such as the eastern tallgrass prairie and sandsage prairie, are at a greater risk of loss than others.

Associated with these important grasslands is a variety of wildlife species that depend on grassland systems for some portion of their life cycle. Many grassland bird species and other wildlife declined in abundance as prairie acreages were reduced. Therefore, maintaining or increasing the size of current prairie tracts and improving on grassland structure and diversity are important to upland wildlife and, consequently, to Nebraska Game and Parks Commission (NGPC).

The goal of NGPC's *WILD Nebraska* program is improvement of wildlife habitat conditions on private lands. *WILD Nebraska* is administered through the Habitat Partner's Section of the Wildlife Division. In order to effectively improve habitat for wildlife, staff take a two-pronged approach: 1) pursue a partnership approach to appropriate landscape-level management for wildlife, which entails education of our constituents, and 2) develop stewardship cost-share and technical assistance activities that demonstrate appropriate management for wildlife.

WILD Nebraska embodies natural resource stewardship activities in the categories of grasslands and prairies, wetlands, woodlands, and general activities. Concerning grasslands, NGPC focused on five general principles to guide this portion of *WILD Nebraska*:

1. Implement sound land stewardship concepts and practices.
2. Conserve existing native grasslands.
3. Conserve and promote large or aggregated grassland systems.
4. Emphasize long-term sustainability.
5. Recognize and address the need to conserve rare and vulnerable plant communities.

Grassland activities are intended to convey program importance to wildlife, important concepts about wildlife, incentive payments and cost-share rates, activity delivery staff, and encourage best management practices that will benefit wildlife, generally in a working landscape. Activities are intended to be flexible to address regionally important prairie and grassland opportunities. The seven activities are:

1. Grazing management for grassland wildlife
2. Interseeding established grasslands with legumes and other forbs
3. Prescribed burning
4. Disking
5. Grassland haying and/or shredding
6. Herbicide treatment of grasslands
7. Grassland or prairie establishment

Biologists, upon receiving a landowner request for assistance, are available to develop a management plan and provide technical assistance on grassland stewardship for any tract of land maximizing benefits to wildlife and targeted species. Cropland conversion to grassland habitat is a high priority, and guidance will be provided concerning seeding mixtures needed to maximize diversity and abundance for wildlife. Management strategies that vary

(Continued on page 5)



Policy Advisory Committee Members

Ann Antlfinger

Department of Biology, UNO

Merlyn Carlson

Nebraska Department of Agriculture

Richard Clark

*Department of Agricultural
Economics, UNL*

John Craig

Nebraska Department of Roads

Steve Chick

*USDA, Natural Resources
Conservation Service*

Jim Douglas

Nebraska Game and Parks Commission

Terry Gompert

Cooperative Extension, UNL

Kathleen Keeler

School of Biological Sciences, UNL

Terry Klopfenstein

Department of Animal Science, UNL

Lowell Moser

*Department of Agronomy and
Horticulture, UNL*

Roch Gaussoin

*Department of Agronomy and
Horticulture, UNL*

Ken Vogel

USDA, Agricultural Research Service

Steven Waller

IANR Administration, UNL

David Wedin

*School of Natural Resource Sciences,
UNL*

Dayle Williamson

*Formerly with Nebraska Department
of Natural Resources*

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.

Martin A. Massengale CGS Director
Pam Murray CGS Coordinator
Jan Shamburg CGS Secretary
Anne Moore Newsletter Layout



FROM THE DIRECTOR

Grasses have wide diversity in numerous traits, grow in many different environments, and have multiple uses, but usually we don't think of them for ornamentals as frequently as other plants that have more brilliant and colorful flowers. However, grasses have their own beauty and can be quite colorful and distinctive at different times throughout the year.

The great aesthetic appeal of ornamental grasses differs from that of most other garden plants. Rather than having brightly colored flowers and diverse leaf shapes, grasses offer their value and beauty more from texture, size and shape of plant, color changes during the seasons, along with the movement and sound from breezes. Their color changes are subtle and diverse.

Ornamental grasses are well known for their luminous qualities. Grass leaves are quite translucent and often dramatic when the light shines from the side and/or back. Both the flowers and leaves of grasses have distinct ranges of color. There is considerably less variation in flower color than in foliage, but they can still be rather significant. In the fall, grasses begin to lose their green color and take on the shades of gold, bronze and red. As the season progresses, these colors gradually deepen until they approach the beauty of autumn. These changing colors are moderated by the sun, wind and rain. In late fall and early winter, the leaves of grasses dry in place on the upright stems without much change in appearance except for color. The beautiful shades of bronze, red and gold eventually fade into various hues of gray and straw as the winter progresses.

When looking back in time at the role grasses have played as ornamental plants, there have been many changes, but most importantly has been the number of species and/or cultivars that one has to choose from today versus just a few short years ago. This great increase in species and cultivars can be accredited to the good work of plant breeders, botanists, nursery workers and amateur gardeners. The wide array of grasses that can be used for ornamentals and easily incorporated with other species or as a single species is impressive. Grasses are often highly effective when used in designs with other plants as accents, hedges, ground cover, or in a host of other ways.

Another important reason for using more ornamental grasses in landscaping is that generally they are more drought tolerant, especially the native species. With drought conditions and water shortages occurring in many parts of our country, this is an especially appropriate time to consider using grasses in your design plan. It is often a challenge to keep plants alive during a prolonged drought period, and at some point in the drought cycle, even native grasses may have trouble growing and surviving.

Ornamental grasses are a versatile group of plants, offering unlimited possibilities in one's garden. They are pioneer and hardy plants, and are usually the first to grow in disturbed soils. If nothing else grows, grasses probably will, and there seems to be a grass for every space. Landscape designers are recognizing more fully the significant contributions that grasses can make to their designs. We encourage landscape architects to use more ornamental grasses for their unique advantages and the beauty they add to all seasons.

M. A. Massengale

Regional Researchers Collaborate to Improve Grazing Systems

Seven years ago scientists and educators in four states (Nebraska, Iowa, Missouri and Kansas) who work in the area of forage and grazing systems began meeting on an annual basis to share information on what they were doing and identify opportunities for collaborative activities. The CGS played a coordinating and facilitating role in this effort. The meetings, which incorporated tours of research sites, rotated among the states. Out of these gatherings came several regional proposals, one of which received federal funding for a project titled "Improved Grazing Systems for Beef Cattle Production" (NC-225), begun in 1999. Because it was an official North Central Region (NCR) project, other NCR states were invited to join, which North Dakota and Ohio did. An outcome of NC-225 was a conference titled "Integrating Cattle and Forage Resources," which was held in four locations in the NCR in late 2002. Publications associated with that conference as well as the 2003 meeting minutes and annual report for NC-225 can be found at www.ans.iastate.edu/nc225, or contact the CGS office.

This summer it was Iowa's turn to host the regional meeting, which included tours of the Iowa State University Agronomy Farm and the Beef Nutrition Farm where we learned about research related to use of distiller's grains, grass-finished beef production, use of wetlands for treating feedlot run-off, and stockpiled grazing of heifers. The 2004



Scientists from several universities participating in the NC-225 project inspect research on the Iowa State U. Agronomy Farm.

minutes and report should be on the above Web site later this summer.

Next summer UNL will host the group for the third time. At that meeting we will be discussing the newly-approved NC-1020, "Beef Cattle Grazing Systems that Improve Production and Profitability While Minimizing Risk and Environmental Impacts." NC-1020 will build upon the research results from NC-225, which officially terminates September 30, 2004.

UNL Researchers Study Seed Production of Eastern Red Cedar

University of Nebraska-Lincoln researchers from the Department of Agronomy and Horticulture completed a seed study to determine how the eastern red cedar (*Juniperus virginiana* L.) expands into mixed-grass prairie. Susan J. Tunnell, James Stubbendieck, Julie Huddle and Jennifer Brollier announced their results in the spring 2004 issue of *Great Plains Research*. "Because eastern red cedar has become a serious ecological problem in the Great Plains, understanding its seed dynamics and establishment from the seed bank can help manage and reduce its expansion," Stubbendieck said.

The researchers sampled the soil seed bank underneath and surrounding eastern red cedar trees at two mixed-grass prairie sites in Nebraska. Their objectives were to investigate the seed bank for seed number and viability in various directions and distances from existing trees. "We found that most seeds were recovered inside the canopy, and seed numbers rapidly declined as distance from the canopy increased," Tunnell said. "Our results indicate that the eastern red cedar does not rely on long-term accumulation of seeds."

Studies by other researchers have shown that the negative ecological implications of increased eastern red cedar densities on grasslands include a decrease in plant diversity. Eastern red cedar will establish in undisturbed old fields and pastures of the eastern United States but is eventually replaced by hardwood trees. However, in the undisturbed grasslands of the Great Plains, eastern red cedar becomes the dominant woody plant and eventually develops into an eastern red cedar forest.

The authors concluded that to reduce the number of future seedlings, it is necessary to remove female cone-bearing trees. The number of annual seedlings appears to be dependent on the current year's seed production and avian dispersal, not on the existing seed bank. Therefore eastern red cedar expansion in the grasslands could potentially cease after the seed source has been removed.

Great Plains Research, a journal of social and natural history, is published by the Center for Great Plains Studies at UNL. The journal is available for purchase from the Center at (402) 472-3082.

Source: Verbatim news release issued 5/26/04 by the Office of Communications, UNL.

High School Students Improve Their Game While Having Fun at Big Red Golf Camp

In mid-June seven male and three female high school students participated in the Big Red Golf Camp sponsored by the University of Nebraska Cooperative Extension 4-H Youth Development program and taught by the UNL Professional Golf Management (PGM) program coordinator Scott Holly and PGM director Terry Riordan. The students ranged from those who had little or no past golf instruction to those who had received considerable individualized instruction from their high school golf coaches.

While the students joined other campers in a five-day stay on campus, the ten golfers spent three and one-half of those days acquiring knowledge and skills of golf. Holly said while they were attentive during the "classroom" portions of the camp (e.g., learning about the rules and etiquette of golf), not unexpectedly, they had the most fun



PGM coordinator Scott Holly demonstrates the pendulum motion of putting to students in the Big Red golf camp.

while playing in single and team events, which they did each day at various courses. Holly, a PGA professional, provided individual as well as group instruction, which included proper positioning for various types of shots – putt, chip, drive, bunker. "Several of the students had pretty good swings, but they didn't know the right set-up position for each type of swing, which is key to the success of a shot. This was particularly evident with the bunker shot," Holly said. "For example, even the students who play on school teams didn't know how to properly set up for a bunker shot. Once they were shown that you have to hit the sand and not the ball, it was like a light bulb went

off over their heads," he said.

Holly takes video of each camper's swings from two positions: face-on and down-the-line. Doing so allows analysis of each golfer's swing positions for the various types of shots.

At last year's inaugural 4-H golf camp, there was time for the group to view the video and learn from it. This year time ran out, so following the camp, Holly studied the video, wrote helpful comments about each golfer's swings, and mailed the video and comments to the campers.

The golf camp culminated in a luncheon at Wilderness Ridge Golf Course following a nine-hole tournament there (the second nine holes were rained out). Several family members joined their campers for the luncheon.

Plans are already under way for the 2005 golf camp. To be put on the mailing list for a brochure, call or e-mail the 4-H office, 402-472-2805, pjeffries1@unl.edu.



Now what was it Scott said about set-up position for putting?



Does anyone have a golf club Lil' Red can use?

WILD Nebraska Grasslands (continued from page 1)

the grazing rotation of wetlands and uplands to encourage residual cover for ground-nesting birds are also provided.

NGPC funds *WILD Nebraska* primarily through three main sources: habitat stamp sales that hunters are required to purchase along with their hunting permit; donations; and federal reimbursements. Support has also been obtained through grants from Nebraska Environmental Trust Fund and US Fish and Wildlife Service (FWS) to promote grassland initiatives. FWS funds have been delivered through the Landowner Incentive Program (LIP), Private Stewardship Grants (PSG), and State Wildlife Grants

(SWG). Through LIP, NGPC is delivering tallgrass prairie and shortgrass prairie initiatives that benefit at-risk wildlife species within Nebraska.

Biologists are very familiar with USDA Farm Bill program offerings, Natural Resource District incentive programs, and other funding sources available to increase, restore, and enhance grassland acres in Nebraska. Contact your local NGPC office and ask for a wildlife private lands biologist to assist you with developing a management plan for grassland establishment or management that will meet your wildlife species objectives.

Multiple Dimensions of a Strong Professional Golf Management Program

by Charles Francis, Department of Agronomy and Horticulture, UNL

Many people applaud the arrival of the new Professional Golf Management (PGM) program at UNL. This program provides unique opportunities for students to prepare for a professional career in the recreation and leisure industry of this country.

Strength of the program will depend on diversity. PGM graduates will deal with turf management, business operations, food and beverage management, golf instruction, and public relations. They will also have to cope effectively with questions about the ethical use of resources connected with the game of golf. It is not an unlikely scenario that PGM graduates would find themselves in a position of having to address ethical issues such as the impacts of golf courses on the broader ecosystem and the people who inhabit this planet.

An article in the January/February 2004 issue of *WorldWatch* magazine listed some rather startling statistics on the use of water and pesticides by golf courses around the world. While one could argue about how accurate or current the numbers are, all would probably agree that golf courses do have a significant impact on our natural resources in terms of use of land, water and pesticides.

Water will be one of the key limiting factors for supporting the human population through agriculture in the current century. Clean water for household use is already a major problem for over a third of the people on the planet. Since the days of Rachel Carson's *Silent Spring*, we have been more aware of the unintended effects of chemical pesticides on our food and in our environment. The judicious use of water as a natural and limited resource, as well as informed and careful use of pesticides, should be among the foundations of our future decisions on how to allocate scarce resources for a sustainable future.

How do we deal with ethical issues such as these in education? One approach commonly taken in agriculture is

to consider these as externalities to the curriculum. For example, the emphasis for horticulture majors studying to become golf course superintendents traditionally was presentation of an attractive physical golf course layout and a solid business plan for its operation. While we can include in our turf science courses the latest research and management techniques that require less water and pesticides, we should not stop there.

A more comprehensive approach to liberal education, including the new PGM program, is to consider all the ramifications, all the positive and negative impacts, of the game of golf and the resources it consumes. Those graduates will be better able to deal with the questions that arise in a resource-scarce world, a world that we hope will include clean water and air and produce enough food to meet human needs while not sacrificing other species and the entire ecosystem in order to meet those needs.

It is difficult to comprehend the potential impacts of conversion of farmland to golf courses in a country such as the U.S. where there is surplus food production and ample export potential. It is a more immediate problem in Thailand where 60 hectares of prime farmland in rice is converted into golf courses for visiting Japanese and other tourists to enjoy. There is no question about the economic benefits of foreign tourists to the Thai economy, but many question the long-term wisdom of sacrificing food production potential for short-term balance of payments.

Let us strive to produce well-educated graduates who are prepared to deal with the complexities of a future with scarce resources. They will have to deal with a public that is increasingly aware and concerned about land and other resource use. Our Professional Golf Management and horticulture programs can be models for other professional programs if we are willing to address effectively these difficult issues.

Still Time to See Exhibition – *Listening to the Prairie*

Tilden, NE is the final stop for the traveling exhibition, *Listening to the Prairie: Farming in Nature's Image*. The exhibition, which has been on display in 14 states since 2001, is for public and academic libraries. It closely examines this region and its transformation from grassland plains to cropland and grazing pastures, making it one of the world's most productive agricultural regions. It is sponsored by the National Museum of Natural History of the Smithsonian Institution and the American Library Association. The only two Nebraska sites to host the exhibition were the public libraries in Scottsbluff (May-June 2003) and Tilden (July-August 2004). For more

information, see www.ala.org/ala/ppo/currentprograms/listening/listeningprairiefarming.htm.

Walk-in Registrations Accepted for Nebraska Grazing Conference



By the time you read this, the preregistration deadline of August 1 may have passed, but walk-ins are still welcome at the 2004 Nebraska Grazing Conference to be held August 10-11 in Kearney. For more information, see the Spring 2004 issue of this newsletter or the CGS Web site, or call the CGS office.

CGS Advisory Council Tours Northeast Nebraska

June 2 was a surprisingly chilly day for the 19th gathering of the CGS Citizens Advisory Council, this time in the Norfolk area. We began at the new Northeast Community College Ag Complex where we learned from instructor Bernie Thyen that last year 30 to 40 of their 262 agriculture students continued their education at four-year institutions. We then headed to Tucker Hills Farm, where owners Chuck and Bev Henkel incorporate rotational grazing of cattle, sheep and chickens on their 500+ acre farm. Our next stop was Eldorado Hills Golf Club to hear about management successes and challenges from course superintendent Kevin Bruning. During the discussion CGS Associates Roch Gaussoin and Terry Riordan shared helpful turf management information. The afternoon portion of the



Chuck Henkel demonstrates his use of rotational grazing with sheep.

tour was a true team effort, coordinated by CGS Associate Terry Gompert. We hit several stops in the Pierce area where experts from UNL, USDA-NRCS and Nebraska Game and Parks Commission talked about grassland stewardship, plant diversity, exotic invaders, and management tools that work for grassland in this part of the state. We then traveled a bit farther north to the Creighton area where we joined another group to hear speakers on irrigated pasture management (see related article, this page), nitrogen and water movement in crops compared with pasture, and organic grass farming.

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.



Tour participants inspect the 15th green at Eldorado Hills Golf Club while superintendent Kevin Bruning (left) describes some of the turf problems he was having with this green.



Scott Wessel with Nebraska Game and Parks Commission discusses meadow management on this Pierce County farm.

Groundwater Nitrates Being Used to Fertilize Intensive Grazed Pasture

A Creighton, Nebraska farmer has found a successful alternative to irrigated cropland and the consequences it sometimes has on groundwater resources. In cooperation with the Lewis & Clark NRD (Natural Resources District) and UNL Cooperative Extension, a pilot program has shown fascinating results on a test plot located near the community. Cropland was converted to irrigated pasture and managed with rotational grazing that has shown economic profit and significant benefit to groundwater quality.

Jim Fuchtman runs 80 cow/calf pairs on the 80 acres of grass, which was converted, from irrigated cropland. He has 10 separate paddocks in which to rotate the cattle over a seven-month grazing period. They cycle around the full area in about 28-35 days and are easily moved from one paddock to the next. Electric fence is used to separate the paddocks, which runs parallel with the pivot tracts.

"Management has been easy," says Fuchtman. "The cows know the sound of my 4/wheeler and come to the gate when it's time to move them."

Fuchtman uses no fertilizer, as the groundwater has high levels of nitrate nitrogen (22.6 parts per million in 2003). Consequently he is saving expenses of seed and fertilizer that occur annually with cropland. In addition to the savings, he is being paid \$40/acre/year for the conversion process as part of a pilot program with the Lewis & Clark NRD. The goal of the program is to reduce nitrogen application and leaching while utilizing the nitrates already present in the groundwater to produce a usable and profitable crop.

Fuchtman used a NRD cost-share program to initially seed the grass. He received 65% reimbursement to plant a mix of orchardgrass, fescue, wheatgrass and legumes in 2002. He provided all the labor himself.

The Lewis & Clark NRD is considering expanding the program in the Creighton area because of the serious groundwater concerns, which prompted the city of Creighton to build a nitrate removal plant. The Fuchtmann property lies one mile from the city wells and is within the groundwater recharge area for those wells. Other property in the vicinity may also be eligible to enroll in the program soon.

Source: Verbatim news release issued 6/1/04 by Lewis & Clark NRD.

Grazing and Grassland Management Is Theme of Wildlife Society Meeting

The Nebraska Chapter of The Wildlife Society invites you to its Annual Meeting and Student/Professional Workshop, to be held at the Holiday Inn in Hastings September 23-25, 2004. Presentation topics include: Using Fire and Bison to Restore a Functional Tallgrass Prairie Landscape? Heterogeneity and Conservation of Grassland Ecosystems; Government Programs for Grazing Private Lands; Private Landowners Perspective on Wildlife Management on Grazing Lands; Grazing System Influences on Greater Sage-grouse Nesting and Early Brood Rearing Habitats; Avian Species Richness, Density, and Productivity among Grazing Systems in the Nebraska Sandhills; Social and Technical Infrastructure Needed to Support Prescribed Burning on Nebraska Range and Pasture; Wind and Wildlife: the Need for a Wise Use Movement Introduction to Grazing; Panel Discussion on the Perspective of the Farmer/Rancher; Wetland Grazing in the Rainwater Basin; Patch Burn Grazing along the Central Platte River. The meeting will conclude with tours of patch-burn grazing along the Central Platte River and wetland grazing in Rainwater Basins.

A special invitation is issued to students (graduate and undergraduate) to submit abstracts for the open poster session on "grazing and wildlife conservation topics and issues." The first 20 students will get free registration and rooms. A \$200 prize will be awarded for the best student poster.

The deadline for registration and the poster abstracts is August 27. For more information, contact Renae Held, 402-472-8878, rheld3@unl.edu or the CGS office.

CGS Associates

Chris Calkins is a member of the research team that received the 2004 International Meat Secretariat Prize for Meat Science and Technology for its work in beef muscle profiling.

On August 1, 2004, **Lowell Moser**, who is the current President of the American Society of Agronomy, will take on one more administrative assignment: interim head of the UNL Department of Agronomy and Horticulture.

Range Management Focus of Beef Basics VI

A new Beef Basics home study course can help producers optimize beef cattle production on range lands.

Beef Basics VI, a joint venture of University of Nebraska Cooperative Extension and Cooperative Extension in Wyoming, emphasizes the understanding of range plants, drought management, cattle grazing behavior, riparian management, feed intake, supplemental feeding, weed control and marketing cattle.

The Beef Basics courses are designed for producers, feed consultants and veterinarians. They are developed by educators and specialists, with producer and veterinarian input.

Course I covers nutrition, economics and forage use. Course II covers reproduction, genetics and sire selection. Course III emphasizes nutrition, health and management of growing calves. Course IV deals with financial record keeping and production records. Course V is a more in-depth treatment of nutritional strategies for the beef cow herd.

Bud Stolzenburg, extension educator in Cherry County, said that for the most part, courses are designed to be stand-alone, although some people take more than one course. Since Beef Basics began in 1993, there have been more than 4,500 enrollments in the program. Producer evaluations regularly report that ideas implemented from the courses save an average of \$15 per head, Stolzenburg said.

To find out more about any of the home study courses, call 800-657-2188 or see beefbasics.unl.edu. Each course is \$55.

Source: News release issued 6/23/04 by IANR News Service, UNL.

Info Tufts



Since 1991, Audubon International has certified more than 460 golf courses as nature sanctuaries, including three at colleges: State University of New York College of Technology at Delhi, University of Maryland at College Park, and the University of Notre Dame. The only certified course in Nebraska is Beatrice Country Club, which was one of our CGS tour stops last summer. For more information about the Audubon Cooperative Sanctuary Program for Golf Courses, see www.audubonintl.org/programs/acss/golf.htm.



Approximately 250 species of grasshoppers reside on the Great Plains today.



According to a Nebraska Wildlife Federation analysis, the stretch of the North Platte river from Ogallala to Lexington (110+ river miles) now carries just 12-16% of the water that historically coursed down this stretch of the river.



Resources

Encyclopedia of the Great Plains, edited by David Wishart (ISBN : 0-8032-4787-7). This new book is a cooperative project of the Center for Great Plains

Studies and the University of Nebraska Press. The Web site for the book (www.nebraskapress.unl.edu/bookinfo/4391.html) states: "With 1,316 entries contributed by more than 1,000 scholars, this groundbreaking reference work captures what is vital and interesting about the Great Plains – from its temperamental climate to its images and icons, its historical character, its folklore, and its politics. Thoroughly illustrated, annotated, and indexed, this remarkable compendium of information and analysis will prove the definitive and indispensable resource on the Great Plains for many years to come." The book can be ordered for \$75 + \$5 s&h at above Web site or University of Nebraska Press, 233 North 8th St, Lincoln NE 68588-0255.

Partners for Fish and Wildlife is a program of the U.S. Fish and Wildlife Service through which it provides technical and financial assistance to help farmers and ranchers realize their goal of making their land a better place for fish and wildlife while sustaining profitable farming and ranching. The major focus areas in Nebraska are: Rainwater Basin, Central Platte River, and the Sandhills. Learn more about these ecosystems and how the partners are working together to achieve their goal at nebraskapartners.fws.gov/ne4.htm.

Realizing the Promise of the Farm Security and Rural Investment Act: How Implementation of the Conservation Provisions Measures Up. This report issued by the Soil and Water Conservation Society in May of this year analyzes actions taken to date by Congress and the Administration



Congratulations to two of our CGS Citizens Advisory Council members: Duane Hovorka, Nebraska Wildlife Federation executive director, for receiving the Nebraska Sustainable Agriculture Society's 2004 Sustainable

Agriculture Research and Education Award, and Dave Stock with Stock Seed Farms for being inducted into the Nebraska Hall of Agricultural Achievement.

to implement the conservation provisions signed into law May 13, 2002, and makes several recommendations for urgent attention. See www.swcs.org/docs/RTP.pdf.

Biotechnology-derived, Perennial Turf and Forage Grasses: Criteria for Evaluation. Following a two-day workshop in January 2003 sponsored jointly by CAST and USDA-APHIS (see article in Spring 2003 CGS newsletter), an 11-member task force undertook the writing of this publication to present in summarized form the contributions made by the diverse group of workshop participants, as well as those who submitted comments before and after the formal meetings. Major sections include: principles supporting ecological risk assessment and regulatory decision making; background information on perennial grasses; gene migration and weed management of biotechnology-derived (BD) perennial grasses; criteria for evaluating BD grasses; and a summary of workshop responses and public comments. The report was released in May 2004 and is available online only at www.cast-science.org/cast/src/cast_top.htm. The interpretive summary is free; there is a nominal charge for non-CAST members.

Calendar

Contact CGS for more information on these upcoming events:

2004

- July-Aug.:** Exhibition – Listening to the Prairie: Farming in Nature's Image, Tilden, NE
- Aug. 10-11:** 2004 Nebraska Grazing Conference, Kearney, NE, www.grassland.unl.edu/grazeconf.htm
- Sep. 11-12:** Alabama GrazeFest 2004, Montgomery, AL, http://www.eatingfresh.com/ef_gfa.html
- Sep. 23-25:** Nebraska Chapter of The Wildlife Society Annual Meeting and Student/Professional Workshop, "Grazing and Grassland Management," Hastings, NE
- Oct. 7-8:** Nebraska Section, Society for Range Management (theme is prescribed burning), Ainsworth, NE
- Oct. 31 - Nov. 4:** Science to Secure Food and the Environment, 2004 ASA-CSSA-SSSA International Annual Meetings with the Canadian Society of Soil Science, Seattle, WA, www.asa-cssa-sssa.org/anmeet
- Dec. 8-10:** Nebraska Cattlemen Annual Convention, Kearney, NE

2005

- June 26 - July 1 XX** International Grassland Congress, Dublin, Ireland, www.igc2005.com

UNIVERSITY OF
Nebraska | CENTER FOR
Lincoln | GRASSLAND STUDIES

222 Keim Hall
P.O. Box 830953
Lincoln, NE 68583-0953

Address Service Requested

Non Profit
U. S. Postage
PAID
Permit 46
Lincoln, NE