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Center for Grassland Studies Summer 1997 Newsletter

Volume 3, No. 3 Summer 1997



From the Director

Lt was my good fortune and privilege to participate in the XVIII International

Grassland Congress held in Canada in June, 1997. Several of our colleagues from Nebraska also attended. Part of the Congress was held in Winnipeg and part in Saskatoon. There were mid-congress tours between the two cities as well as pre and post-congress tours. The Congress is held every four years in a different country, and

the XIX Congress will be held in Brazil in 2001.

There were 1,189 registrants who attended the Congress from 94 countries. Approximately 800 posters and 60 invited papers were presented. I presented a poster on the Center for Grassland Studies which was well received by those in attendance. We completely exhausted our supply of leaflets describing the Center.

Topics for the different posters and papers were diverse and wide ranging, such as: Conservation of Tropical Forage Genetic Resources; Forage Crops as Bioenergy Fuels: Evaluating the Status and Potential; Biotechnologies in Pasture Grass Improvement: Methods and Prospects; The Physics of Foraging; The Role of Grasslands as Modifiers of Global Climate Change; Microbial Biodiversity and Grass Seed Cropping Systems; Forage Persistence Under Extremes of Cold and Drought; Nutrient and Moisture Inputs for Grass Seed Yields; Integrating Environmental and Agricultural Policy: A North American Perspective.

Allan Nation, publisher of *The Stockman and Grass Farmer*, closed the Congress with an excellent presentation. He shared some highly provocative and far-ranging thoughts for grasslands and grassland researchers. Nation stated that "people working with grasses are now in the right place at the right time." He also indicated that he believed flexible stocking rate was the most important factor in economical forage production. The general consensus was that grasslands of all kinds and for all purposes will be more important in our agricultural production systems of the future. One of the major reasons for this is environmental concerns.

The XVIII International Grassland Congress was a big success by any measure. I particularly enjoyed attending because of the opportunity to increase my awareness of grassland and forage issues, the international perspective conveyed by our numerous speakers and poster presenters, and the opportunity to meet many interesting and hospitable people as well as renew long-standing acquaintances and make many new friends. It is an experience that I would highly recommend to researchers, educators and practitioners who work with grasslands.

New Conservation Reserve Program Under 1996 Farm Bill

by Craig Derickson, Director

USDA, Natural Resources Conservation Service

Background

When the final regulations for USDA's Conservation Reserve Program (CRP) were published in February, Secretary Glickman said they would fulfill the Clinton administration's commitment to redesign the program to target about 36 million of the nation's most environmentally sensitive croplands.

USDA ranks all eligible CRP offers using an Environmental Benefits Index (EBI). The criteria used to determine the EBI rankings include benefits to wildlife habitat, erosion control, water quality, air quality and cost. USDA's goal is to enroll those acres into the program where the benefits to the nation from land retirement outweigh the benefits of keeping the land in agricultural production.

Overview

The CRP is a voluntary program that offers annual rental payments, incentive payments for certain activities, and cost-share assistance to establish approved land cover on eligible cropland. The program encourages farmers to plant long-term resource-conserving plant cover to improve soil, water and wildlife resources. USDA makes available assistance in an amount equal to not more than 50 percent of the participant's costs in establishing approved practices. The duration of contracts are between 10 and 15 years.

The objectives of CRP are to cost-effectively:

- reduce erosion by wind and water;
- protect the nation's ability to producer food and fiber;
- reduce sedimentation;
- improve water quality;
- create and enhance wildlife habitat; and
- encourage permanent conservation practices, including tree planting.

CRP is administered by the Commodity Credit Corporation (CCC) through the Farm Service Agency (FSA, formerly ASCS). The Natural Resources Conservation Service (NRCS), Cooperative Extension Service, State Forestry, Game and Parks, and local NRD's provide program support for CRP.

Eligible Land

To be eligible to be placed in CRP, land must be:

- cropland that is planted (or considered planted according to FSA policy) to an agricultural commodity 2 of the 5 most recent crop years (including field margins) which is also physically and legally capable of being planted in a normal manner to an agricultural commodity; or
- marginal pasture land (defined as land with environmental limitations on which native or introduced grasses or legumes are planted for the purpose of providing grazing for animals) that is either: (1) certain acreage enrolled in the Water Bank Program, or (2) suitable for use as a riparian buffer to be planted to trees.
- Land currently enrolled in CRP is eligible to be offered for new contract enrollment if the current contract expires September 30th following sign-up, unless the contract includes a CRP easement extending beyond the normal contract period. There will be no automatic re-enrollment of expired or active CRP acreage. All CRP contracts will be competitively ranked using the EBI to insure that the maximum environmental benefits are achieved per dollar expended.

Additional Requirements for Cropland

In addition to the eligible land requirements, cropland must:

- have an Erosion Index (EI) of 8 or higher to be considered highly erodible land according to the conservation compliance provisions (redefined fields must have an EI of 8 or greater);
- be considered a cropped wetland;
- be devoted to any of a number of highly beneficial environmental practices, such as filter strips, riparian buffers, grass waterways, shelter belts, well-head protection areas, and other similar practices;
- be subject to scour erosion that is caused by flood waters;
- be located in a national or state CRP conservation priority area; or
- be cropland associated with or surrounding non-cropped wetlands.

Ranking Criteria

The NRCS collects data for each of the EBI factors and then ranks the bids in comparison to all other bids offered. EBI factors include:

- wildlife habitat benefits resulting from reduced erosion, runoff, and leaching of pesticides and nutrients;
- on-farm benefits of reduced erosion;
- likely long-term benefits beyond the contract period from certain practices such as tree plantings;
- air quality benefits from reduced wind erosion;
- benefits of enrollment in conservation priority areas where enrollment would contribute to the improvement of identified adverse water quality, wildlife habitat, or air quality; and
- cost.

The new CRP gives significant preference in the ranking process to vegetative cover types that most benefit wildlife. Producers with existing CRP contracts were encouraged to enhance existing stands of grass with forbes and legumes to provide greater wildlife habitat benefits. Mixtures of warm-season grass with forbes or legumes received a higher numerical ranking than cool-season mixes with forbes and legumes.

National and State Ranking Process

The national ranking process was designed to prioritize CRP offers based on environmental criteria and cost. The process uses the EBI that includes 7 National and State ranking factors. Six of the factors quantify the relative environmental benefits of each offer, and one factor quantifies the cost on a per acre basis.

Summary Results of Nebraska CRP 15 Sign-up

The 15th CRP sign-up period was held from March 3 - March 28, 1997. Results are as follows: Current CRP Acres: 1,250,868; Expiring CRP Acres: 836,600; Offered CRP 15 Acres: 852,748; Accepted CRP 15 Acres: 577,122; Accepted Plus Remaining Acres: 991,390.

The average rental payment rate in the U.S. varies from a high of \$80 per acre in Iowa to about \$9 per acre for land in Arizona. The CRP rental payment and enrollment for Nebraska average \$50 per acre, with total rental payments to the state of \$28,856,095. This amount includes 454,701 acres that were previsously enrolled in the CRP program, and 122,421 new acres.

The following is a breakdown of the type of land accepted into the program in Nebraska: Average EBI (with cost): \$294; Highly Erodible Cropland Acres: 568,523; Average Erodibility Index (EBI): 15; EI of 15 or More (Acres): 264,642.

The acres accepted were offered under the following categories: Wetland Restoration (Acres):

6,415; Expired Water Bank Contract (Acres): 551; New or Existing Trees (Acres): 2,598; New Tame Grass (Acres): 20,872; Subject to Scour Erosion (Acres): 149.

Producer Eligibility Requirements

An applicant must have owned the land for at least 12 months prior to close of the sign-up period unless some other special circumstance exists.

CRP Rental Rates

The CCC bases rental rates on the relative productivity of soils within each county, and the average of the past three years of local dryland cash rent or the cash rent equivalent. The maximum CRP rental rate for each offer is calculated in advance of enrollment. Producers may offer land at that rate or may bid a lower rate to increase the likelihood that their offer will be accepted. In addition, CCC offers financial incentives of up to 20 percent of the annual payment for certain continuous sign-up practices.

Other Payments

The CCC encourages restoration of wetlands by offering an incentive equal to 25% of the costs incurred. This is in addition to the 50% cost-share provided to establish approved cover.

Continuous Sign-Up

Eligible acreage devoted to certain special conservation practices such as riparian buffers, filter strips, grassed waterways, shelter belts, living snow fences, contour grass strips, salt tolerant vegetation, and shallow water areas for wildlife may be enrolled at any time under the CRP continuous sign-up, and are not subject to competitive bidding. All other eligible acreage must be enrolled during a CRP sign-up period.

For More Information

See FSA Fact Sheet: Conservation Reserve Program Continuous Sign-Up for High- Priority Practices for further details. Additional USDA Farm Program information and CRP fact sheets are avalaibable at the following Internet sites: http://www.nhq.nrcs.usda.gov/OPA/FB96PA http://www.fsa.usda.gov/pas

CGS Advisory Council Tours South Central Nebraska

The CGS Policy Advisory Committee recommended holding the late fall Citizens Advisory Council meetings on campus and the summer meetings/tours in other parts of the state. Last summer it was north central Nebraska. This year the fifth Council meeting took place in the Hastings and Clay Center areas on July 1.

Council members and CGS Associates began their day at the Crane Meadows Nature Center (see accompanying article). It was a short jaunt to the Studnicka farm where Vince Shay, Dr. Roger Selley, Paul Swanson, Brent Lathrop and associates described a joint project of The Nature Conservancy, UNL Institute of Agriculture and Natural Resources Agricultural Research and Extension Divisions, and ConAgra. Additional project funding comes from an Environmental Trust Fund grant. As we stood in knee-high grass, we learned that with the expansion of crop land in the 1970s, much of the grassland disappeared affecting both livestock grazing and wildlife habitat. The goal of this project is to demonstrate that using the right production practices, wildlife and agricultural production can happily coexist. The project sponsors are working in partnership with each other and the producer farming the land. They hope to show that you can take marginal land out of row crop production and still make money while simultaneously providing good habitat for wildlife, particularly grassland birds, which have increased significantly in the project area because of larger patches of grass where row crops once stood.

Our tour progressed from knee-high grass in the field to putting greens on the golf course. At Lochland Country Club in Hastings, superintendent Craig Ferguson explained how that course is managed. Continuing with the turfgrass theme, we progressed to Central Community College where we heard about the turf program from instructor Moe Rucker.

The USDA Meat Animal Research Center (MARC) in Clay Center was our next stop. Director Dan Laster told us that the two main emphases at MARC today are meat quality/safety and genome research for livestock. After answering questions on such topics as food irradiation, mad cow disease, and research on increasing forage intake, Dr. Laster gave the group a quick tour.

Adjoining the MARC building complex is the Great Plains Veterinary Education Center (GPVEC), where Dr. Gary Rupp and associates hosted us for a tour of their excellent teaching facilities, including a new multi-media room. The mission of the GPVEC is to optimize efficiency and profitability of beef cattle, sheep, and swine production, while ensuring animal well-being, maintaining a safe food supply and promoting prudent use of environmental resources through education, research, and service in health and production management. In partnership with Kansas State University and MARC, the GPVEC serves as a center of emphasis for food animal health.

UNL Management Intensive Grazing Program Has \$3 Million Impact

In 1992 a team of people started a Management Intensive Grazing Education Program in eastern Nebraska. The team consisted of Extension Educators Terry Gompert in Knox Co., Robert Stritzke in Jefferson Co., Steve Melvin in Nuckolls Co., and Bruce Anderson, UNL Extension Forage Specialist (all are CGS Associates). Several other Extension Specialists and Extension Educators cooperated on the "New Tools for Pasture Production" program, which was attended by 1,600 producers over a four-year period.

Survey results indicate that increased stocking rates and reducing the number of days harvested feed is fed to their cow herds amounted to an annual savings of about three million dollars for program participants. For a copy of the report, "A Management Intensive Grazing Educational Program and the Producer's Practice Changes," contact the CGS office, or access it on the Jefferson Co. Web page: http://www.ianr.unl.edu/ianr/jefferso/.

TGIF Doesn't Always Mean "Thank Goodness It's Friday"

The Turfgrass Information Center (TIC) at Michigan State University contains the most comprehensive collection of turfgrass educational materials publicly available in the world. The TIC has over 39,000 records in its primary database: TGIF-the Turfgrass Information File. In this searchable bibliographic database, each record represents an article, research report, book chapter, or theses, etc.

Included is the "who, what, when, and where" of the article, as well as a brief summary or abstract (for most materials). Over 200 journals, magazines, reports, proceedings, etc., from around the world are constantly monitored to build TGIF. Over 90% of TGIF entries have been published since 1968, reflecting the emphasis on more recent materials.

The TIC has three primary functions: (1) collect materials on turf research, turf culture, and the management of turf facilities, such as golf courses, parks, sports fields, lawns, sod farms, roadsides, institutional grounds, and other landscapes; (2) develop and continually refine an online system to provide access to the collected materials, and other turf-related information resources; and (3) assist users of the collection, by helping them identify, locate, and acquire materials.

The TIC is supported, in part, by subscriber fees for products and services. Individual (for turf facility managers, such as golf course superintendents), Corporate, Association and Foundation (for universities) rates provide varying levels of services. All subscribers can receive: TIC's newsletter The Sward, The Turfgrass Index, reduced rates for services, and/or establish an online account to search the databases directly. For more information, contact:

Turfgrass Information Center Michigan State University 100 Library East Lansing, MI 48824-1048 Voice: (517) 353-7209 FAX: (517) 432-3693 http://www.lib.msu.edu/tgif/

Stop By Crane Meadows Nature Center on Next Flight Down I-80

The Crane Meadows Nature Center near Grand Island, Nebraska is a living classroom where visitors of all ages can learn about the animal and plant life of the Platte Valley. The organization was established in 1989 as a non-profit, comprehensive, year-round educational facility dedicated to providing a wide range of interactive and interdisciplinary programs on the extensive ecosystems of the Platte River. The Nature Center has a newly renovated exhibit house and 240 acres of prairie and wet meadows that border the Platte River in the heart of the Sandhill Crane migration flyway. The annual crane migration provides a focal event for the Center, drawing up to 1,000 people per day from across the country during the peak days in March and April this year. This event complements the year-round programs that follow the seasonal ecology of the Platte Valley. There are more than six miles of hiking trails; each trail highlights different aspects of the region's ecology. The area contains 120 species of wildflowers. Crane Meadows naturalists conduct summer day camps, guided hikes, crane tours, canoe trips, owl prowls, field trips to see rare plants and animals, workshops on Platte River ecology, and academic units for school groups. Future plans for the Nature Center include a live crane exhibit (using birds that have been injured and treated) and a butterfly house.

For more information, contact the CMNC, 9325 S. Alda Road, Wood River, NE 68883, 308-382-1820.

Plant Materials Centers Develop Plants to Solve Conservation Problems

by Pam Murray

Coordinator, Center for Grassland Studies

On July 8, 1997, CGS Associate Richard Wynia with the Manhattan Plant Materials Center (PMC) hosted a group of us who were attending a sustainable agriculture workshop nearby. The PMC is one of several throughout the country that are dedicated to providing vegetative solutions to conservation problems.

Because the area served by the PMC (including Nebraska, Kansas, northern Oklahoma and eastern Colorado) was originally dominated by native grasslands, this is a primary focus of the Center. Great variation in weather and soil conditions makes this area particularly challenging. Work at the 169-acre center has resulted in the release of more than 20 varieties of conservation plants to date.

Objectives of the plant materials program are to: (1) release plant materials for use on the following highly erosive soils, range and pasture improvement, field and farmstead windbreaks, wildlife and wetland habitat improvement, and water quality improvement; (2) develop management and cultural techniques necessary for establishment and acceptance of promising plant materials; and (3) produce limited quantities of foundation quality seed or seedlings to stimulate commercial production. In pursuit of the latter objective, the PMC works with crop improvement and foundation seed associations in the states it serves. Additional program cooperators include land-grant universities and other governmental agencies.

The Manhattan Plant Materials Center was established in the mid 1930s, and is owned and operated by the USDA Natural Resources Conservation Service. For more information, contact the PMC at 3800 South 20th Street, Manhattan, KS 66502, 785-539-8761.

Glickman Declares National Grassland Week

In May USDA Secretary Dan Glickman signed a proclamation that officially recognized the third week of May as National Grassland Week. The purpose of the annual event is to give NRCS and the Forest Service the opportunity to enhance awareness of national grasslands and their importance. This year the story of land ethics, pioneering spirit, unique landscapes, and productivity was celebrated May 18-24. A special recognition ceremony was held in Wall, SD on May 22 at which the official proclamation was made.

The nation's 20 national grasslands can be found in 12 states and hold 3.8 million acres. They are managed under the same laws, regulations, policies and ethics as the rest of the National Forest System.

Info Tufts

Backyard Farmer, the Nebraska Educational Television gardening show that airs April through August, is the second longest running TV show after the NBC Today Show. The program, now in its 44th season, features three CGS Associates: Fred Baxendale, Roch Gaussoin and Don Steinegger.

W The word "prairie" is from the French word for a meadow grazed by cattle.

A difficulty the early prairie settlers encountered was that their plows, made for forest soils, were not able to cut through the dense prairie sod. It was not until 1837, when John Deere invented the self-scouring, steel-bladed plow, that it was possible to break that sod and farm the prairie on a large scale.

CGS Associate News

James Stubbendieck has been appointed Director of the Center for Great Plains Studies at the University of Nebraska-Lincoln. He replaces John Wunder.

Dave Lewis became Head of the UNL Horticulture Department on July 1.

Resources

Forage Utilization by Beef Cattle: Nebraska Research 1960-1996. Single copies free; multiple copies to non-UNL people \$5 each. Report authored by Dr. John Ward, professor emeritus of animal science at UNL. Project conducted for the CGS with funding from the UNL Agricultural Research and Cooperative Extension Divisions. Contact the CGS for a copy.

1996 Turfgrass Research Report. Free (limited quantity available). Annual publication contains brief reports on research conducted by members of the interdisciplinary Turfgrass Science Team at UNL. Contact the CGS for a copy.

A Guide to Nebraska's Wetlands and Their Conservation Needs. Free. Reference developed by the Nebraska Game and Parks Commission to aid in better understanding Nebraska's wetlands. Defines wetlands, discusses their importance and dynamics, identifies threats and losses, describes conservation programs and opportunities, and takes an in-depth look at Nebraska's regional wetland complexes. NG&PC, PO Box 30370, Lincoln, NE 68503, 402-471-5436.

ATTRA (Appropriate Technology Transfer for Rural Areas). This federally supported program is an excellent source of information for a variety of topics related to rural America. Material is assembled by information specialists and sent directly to you. Just call 800-346-9140 and request information on your topic. For example, the CGS recently received a comprehensive packet on rotational grazing. The service is free (your tax dollars at work!).

Alternative Farming Systems Information Center, National Agricultural Library. This arm of USDA has published a series of bibliographies on many topics related to alternative/sustainable agriculture, including one on Forage Legumes and one titled Rotational Grazing and Intensive Pasture Management. You can request free copies by calling 301-504-6559, or by e-mail: afsic@nal.usda.gov. The list of bibliographies (some of which are available online) is on the Internet at http://www.inform.umd.edu:8080/EdRes/Topic/AgrEnv/AltFarm.

Congratulations!

Congratulations to Richard Spangler who in May was inducted into the Nebraska Golf Hall of Fame. Dick is a member of the CGS Advisory Council.

"To make two blades of grass grow where one grew before is surely no achievement unless the grass is a good grass.

Henry Seidel Canby, from Atlantic Monthly, June 1914"

Calendar>

Contact CGS for more information on these upcoming events:

<u>1997</u>

Sep. 6—Festival of Color (features many native plants and grasses), Ithaca, NE

Sep. 23-25—Sustainable beef management workshop, Linneus, MO

Sep. 24, 25, 26, Oct. 1 or 2, 6, 7—One-day bison workshops for Extension and NRCS, various locations in NE

Oct. 7-9—Sustainable beef management workshop, Springfield, TN

Oct. 8-10—Nebraska Society for Range Management Section Meeting, Omaha, NE

Nov. 12-14—Issues Concerning Integrating Grazing and Land Management Conference, Tampa,

FL

(http://gnv.ifas.ufl.edu/~conferweb/)

Nov. 13-15—Symposium on Environmental, Economic and Legal Issues Related to Rangeland Water Developments, Phoenix, AZ

Dec. 7-10—59th Midwest Fish and Wildlife Conference Managing Natural Resources:

Integrating Ecology and Society, Milwaukee, WI

(http://www.dnr.state.wi.us/fh/fish/mwfwc.htm)

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Jan. 12-14—Nebraska Turfgrass Conference, Omaha, NE

Feb. 26-27—28th National Alfalfa Symposium, Bowling Green, KY

Sep. 28-Oct.—Monocots II and 3rd International Symposium on Grass Systematics and

Evolution, Sydney, Australia. (e-mail: karen@rbgsyd.gov.au)

<u>1999</u>

Jul. 19-23—VI International Rangeland Congress People & Rangelands: Building the Future, Townsville, Australia

(http://irc.web.unsw.edu.au)



