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Center for Grassland Studies

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University of Nebraska Lincoln

Programs for Getting Started with a Livestock Enterprise

According to Wyatt Fraas with the Center for Rural Affairs, a decade ago there were 20 programs in this country that linked retiring farmers with those who desire to begin a farm or ranch enterprise. Today there are 33. As the average age of US farmers has risen (now 57.1) and the number of farmers under age 35 has plummeted, new land-matching programs have sprung up to reverse the trends.

The Center for Rural Affairs' Land Link program led the way in 1991, and continues to serve as a model for similar programs. Landowners sign up so a younger farmer or rancher will carry on the legacy of a working farm/ranch business. Hopeful beginners sign up for an opportunity to build a life on the farm. Programs share contacts between beginners and landowners so they can negotiate a transition plan. The Center for Rural Affairs maintains a list of land-matching programs around the country. Landowners can contact any of them to discuss how to become a land-match partner.

Fraas points out that the ratio of beginners to landowners is often 10 to 1, leaving many potential farmers and ranchers on the sidelines during the greatest transfer of farmland in US history as farmers retire. More landowners and more farm and ranch lands are needed.

Learn more about this program and other efforts of the Center for Rural Affairs to assist beginning farmers/ranchers at www.cfra.org, or contact Fraas at 402-254-6893, wyattf@cfra.org.

Another program to help those with little capital begin a livestock operation was recently developed by the University of Nebraska College of Technical Agriculture (NCTA): the 100 Beef Cow Ownership Advantage program. Today, NCTA students are being prepared not only to be technically sound farmers and ranchers, but also competent in understanding the principles of entrepreneurship.

After NCTA Dean Weldon Sleight provided an overview of the "100 Cow Program" at the 2009 Nebraska Grazing Conference, former NCTA students Dan Habiger and Heath Zuellner shared their experiences with the program. Dan and Heath are two of the first 20 students who have formed partnerships and bought cows.

The 100 Cow program was created to provide a forum whereby students, parents, employers, and agencies can come together to develop business plans and ranch transfer programs that are viable. This program differs from transfer/succession plans in other states in that it not only integrates into an academic curriculum knowledge and skills based on current research and technology related to production and marketing, but also teaches students how to ***own*** an agricultural enterprise. NCTA has partnered with the USDA Farm Service Agency, Nebraska Department of Agriculture, and farm and ranch organizations to provide low-interest funding and other financial aids to help these students own a substantial agricultural asset upon graduation.

The ownership aspect, which is incorporated into the capstone course, includes the development of a business plan, a partnership agreement with a current producer, and a FSA loan application that will allow the NCTA graduate to buy 100 cows – either new cows if a producer has grass enough for the additional stock, or existing cows from a producer who wants to start phasing into retirement or pursue other opportunities.

Learn more at ncta.unl.edu/web/ncta/100cowprogram. Also see companion article on page 3 of this newsletter.

Editor's Notes: Sources for this article include "Land Matching Programs Grow" written by Wyatt Frass for the November 2010 issue of the Center for Rural Affairs newsletter, and "Beef Cattle Ownership Program" presented by Weldon Sleight and published in the proceedings of the 2009 Nebraska Grazing Conference, as well as the noted Web sites.

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 Citizens Advisory Council.

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
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From the Director

Society today is becoming more aware of the impact that we humans are having on the environment and expecting greater response to slowing down or decreasing that impact. We read and hear much about protecting our natural resources and sustaining our livelihood for future generations. Grasses and grasslands must be considered an important component of this scenario.

The challenge facing us is to find a way to feed the world's population of the 6.6 billion people today, which is predicted to increase to over 9 billion by the year 2050, while at the same time producing the fiber, feed and fuel to sustain that population. Increasing pressures for goods and services to meet the needs of our future require that our natural resources be given immediate attention. Likewise, our grasslands must be improved, managed and maintained both in ecologically and economically sound ways to meet these needs. Management practices to bring about such results need to be based on proven research results. We must continue to embrace and support our research programs on grasslands to develop the principles upon which the sustainable management practices are based. The importance of science and technology to find solutions to the world's problems continues to grow constantly.

It has been stated that grass provides the sustainability for agriculture. Sustainability has evolved with different meanings to different people. Many of these interpretations are associated with the intended applications. Broadly defined, we think of sustainability as being able to live within the carrying capacity of the ecosystem indefinitely. Some individuals may think this applies only to the agricultural production system, but in reality, it applies throughout the entire food chain including the consumer.

Climate change, desertification, flooding and other problems can be reduced by proper management of our grasslands including turf areas. Grass roots bind soil particles, keeping them in place and enabling water to penetrate and percolate through the soil, which serves as a filter to improve water quality. Also, land in perennial grasses that is not tilled lowers the oxidation of soil organic matter and thus adds less CO2 to the atmosphere.

Grasses and grasslands affect the life of every individual through the food they produce, the recreational and aesthetic benefits provided, and the environmental protection offered by their vegetative parts. The management and sustainability of grasses are so critical to our society's future wellbeing that it seems they need to be emphasized more in future agricultural policies. While much has changed in our agricultural landscape over the years, the overall importance of grasses has changed little. To some, it seems that grasses and grasslands have been neglected resources.

M. A. Massengale

Ranch Employees Given Opportunity to Learn the Art of Ranch Ownership

by Weldon Sleight, Dean, University of Nebraska College of Technical Agriculture

Every ranch employee has undoubtedly dreamed about one day owning a ranch. Until three years ago that remained a dream. Over the past three years, more than 30 ranch employees have enrolled in the University of Nebraska's 100 Beef Cow Ownership Advantage Outreach Program.

This program was designed for ranch employees who work full-time and generally have families, making it very difficult for them to return to college on a full-time basis. It requires a commitment of about two days a month for eight months. This makes it possible for ranch employees to remain employed while completing the Outreach program.

The program consists of four courses, two that cover the latest beef cattle technology taught through the Nebraska Ranch Practicum and the NCTA Cow/Calf College. A farm and ranch management course and the Nebraska EDGE course provide the students with an understanding of management that is needed to complete a business plan, partnership agreement, and USDA Farm Service Agency Beginning Farmer low-interest loan application.

NCTA agribusiness professor Krystle Friesen notes that the program "links research-based technical beef cattle production information with business skills important to being successful in developing systems that will lead to ranch ownership."

This program and its counterpart resident program for traditional students, the 100 Cow program, are designed to help young people return to their home communities as partner-employees rather than "hired hands." I believe it is absolutely critical that we help our young people start building capital as early as possible so that they will have an opportunity to actually own a ranch. It won't be easy, but our ranch employees are used to hard work, and they love cattle.

The program begins with the Cow/Calf College on the NCTA campus in Curtis May 12-14, 2010 and ends with the completion of the Nebraska Ranch Practicum in January 4-5, 2012. For additional information, please contact Doris Hill, program coordinator, 308-367-5272, dhill4@unl.edu.

Controlling Annual Bluegrass

By Zac Reicher, Department of Agronomy and Horticulture, UNL

Annual bluegrass (*Poa annua*) remains one of the most problematic weeds for golf courses, athletic fields, and now irrigated home lawns. Chemical controls have evolved over the years and can be effective, but controlling a grass within a grass is difficult because of similar physiology and lack of selectivity in herbicides. Plus, annual bluegrass is a formidable weed. Annual bluegrass is genetically "plastic," ranging from short-lived annuals to long-lived perennials, and thus easily adapts to almost any turf management system. *Poa annua* var *annua*, a true annual, usually is lighter green in color, has coarser leaves, and produces massive amounts of seedheads compared to the perennial *Poa annua* var *reptans*. Annual bluegrass is one of the most widespread plants in the world and has been found from the Arctic Circle to near the tropics. Viable seeds of annual bluegrass approach 110 seeds/sq. inch in soil under golf greens and 70 seeds/sq. inch in fairways, compared to the typical seeding rate for cool-season grasses of about 12 seeds/sq in. Most of this seed in greens can germinate almost immediately, while about 20% of it will persist over a season or more before germinating (Lush, 1988). On the other hand, seed from fairway or rough-height annual bluegrass will not germinate for at least 4.5 months unless it is chilled, which is a reflection of its variability (Lush 1989). Its adaptability has allowed it to survive and thrive in many environments.

To effectively control annual bluegrass in golf or sports turf, turf managers will have to shape the entire management program to discourage it. If only one or two management factors are modified to discourage annual bluegrass, then one can hope at best for only modest increases in the annual bluegrass population from year to year. Even when successful at controlling annual bluegrass, a turf area may be just days away from a reinfestation of annual bluegrass after an episode of winterkill, grub damage, herbicide misapplication, etc. So if it seems impossible to control annual bluegrass, what is the justification for trying it? Compared to annual bluegrass, creeping bentgrass, Kentucky bluegrass, and tall fescue all have reduced water requirements, increased flexibility in irrigation timing and amount, reduced labor requirements (no "babysitting" like with the shallow-rooted annual bluegrass during summer), reduced fungicides inputs, improved and more consistent aesthetics and playability, and reduced threat of winterkill. In many cases, controlling annual bluegrass is easily justified.

Controlling annual bluegrass starts with cultural controls. Chemical controls will only be effective in the short term without solid cultural controls aimed at limiting annual bluegrass reinfestation. Since annual bluegrass has been found to germinate in complete darkness (shaded by the canopy) (McElroy et al., 2004), a dense turf will not prevent germination, but will likely out-compete the seedling annual bluegrass. The cultural controls are listed in Table 1 and can be adapted to almost any turf setting. The rest of this publication focuses on chemical control of annual bluegrass, but assumes that cultural controls are already optimized

Preemergence herbicides

Preemergence herbicides applied in early fall are highly effective on the annual biotypes of annual bluegrass, as long as they are applied in early September prior to the germination window (Dernoeden, 1998). The longer lasting herbicides prodiamine, dithiopyr, or pendimethalin will work for this, and a second application in November, December or March may be

(continued on page 4)

Table 1. Summary of practices to favor or culturally control annual bluegrass.

Practice	*To favor annual bluegrass*	*To control annual bluegrass*
Mowing height	The lower, the better.	Higher mowing height will favor the desired species.
Irrigation	Shallow and frequent irrigation to keep the upper 1 inch of the soil profile damp for the shallow rooted annual bluegrass.	Keep the area as dry as possible. Allowing dormancy of the desired turf should thin or kill annual bluegrass.
Aerfication	Aerification in spring and/or fall to bring seedheads to the surface and encourage germination.	Aggressive aerification to minimize compaction. Primarily done in the summer when annual bluegrass will not be germinating.
Nitrogen	Spring and fall nitrogen, especially late fall when annual bluegrass is still growing aggressively.	Primarily in summer. Aggressively growing annual bluegrass in spring and fall will respond favorably to spring and fall N.
Phosphorus	Regular phosphorus increases availability to limited root system of annual bluegrass and should aid in seed production.	Low phosphorus fertilization in theory reduces seedhead production.
Seedhead management	The growth regulators Embark, Proxy or Ethephon are most effective seedhead limiters. Limiting seedheads will conserve carbohydrates for better summer and potentially winter survival. These will also eventually limit seed stores in the soil.	Constant mowing with clippings caught during seedhead production will help long term to limit supply in soil. Gaussoin and Branham (1989) reported that removing clippings can reduce annual bluegrass populations up to 20% over three years.
Fungicides	Regular fungicides targeted for summer patch and anthracnose in addition to the typical dollar spot, brown patch, and pythium controls.	Avoid any fungicides that will control summer patch or anthracnose when treating for dollar spot, brown patch, or pythium controls in the desired turf.
Preemergence herbicides	Apply at typical timing to control crabgrass and concentration in soil should allow annual bluegrass germination near Labor Day.	Labor Day applications will minimize annual bluegrass germination in fall, and likely will require a second application again in late fall or very early next spring
Postemergence herbicides		Velocity and Prograss are effective on mature annual bluegrass. Certainty and a number of others will control young annual bluegrass. Some will try low rates of glyphosate. Tenacity and Arysta's amicarbazone are still being evaluated for cool-season turf.
Growth regulators	Trinexpac (Primo, T-Nex) will help improve stress tolerance and help to make annual bluegrass healthier.	Paclobutrazol (Trimmit, TGR) or flurprimidol (Cutless, Legacy) will limit growth of annual bluegrass, allowing desired turf to out-compete annual bluegrass.

required to insure control of spring-germinating annual bluegrass. This second application may not provide season-long crabgrass control, but a third application of a preemergence herbicide would likely exceed label recommendations and may affect root growth of the desired turf. Therefore, consider using a post emergence herbicide like quinclorac as needed for crabgrass in June or July. Bensulide is the only preemergence herbicide labeled for greens and is limited to a single application per year on greens.

Postemergence herbicides

Three fall applications of Prograss™ (ethofumesate) spaced two weeks apart has been the industry standard, but it is often inconsistent at rates safe on Kentucky bluegrass or creeping bentgrass (Dernoeden and Turner, 1988). Uptake of Prograss is primarily foliar, so inconsistency could be caused by poor uptake because of environmental conditions at or shortly after application (Kohler and Branham, 2002). We also know that Prograss affects the waxes on the annual bluegrass leaves (Kohler, 2003) and thus should be more effective on open, windy winters. Fall applications are usually most effective, but some earlier work at UNL showed spring applications also work (Shearman, 1986) and work in Kentucky showed additional spring applications following fall applications improved control (Woosley et al., 2003). Furthermore, combining fall Prograss use with season-long paclobutrazol (Trimmit, TGR) applications or using prodiamine in the fall plus three applications of Prograss in the fall improves control (Rossi, 2001).

The most recent postemergence herbicide for annual bluegrass is Velocity® (bispyribac-sodium) by Valent. Velocity is effective for controlling annual bluegrass in fairway-height creeping bentgrass and lawn-height tall fescue or perennial ryegrass, but is not safe on many Kentucky bluegrass cultivars. It should soon be labeled for use on greens. Turf safety and efficacy of Velocity increases with temperatures over 70F, thus applications should start in late May or June (Lycan and Hart, 2006, McCullough and Hart, 2006). Though a wide range of application rates and frequencies can be effective, two to four applications two weeks apart are generally most effective on annual bluegrass (McDonald et al., 2006). Adding very low rates of Fe and N (0.03 to 0.09 lbs/1000 sq ft) to the tankmix will improve turf safety and have no effect on control (McDonald et al., 2006). If it becomes too effective on annual bluegrass, overseeding with desired turf can occur two weeks after the final application of Velocity, or Velocity can be applied over newly-seeded creeping bentgrass two weeks after emergence (Rutledge et al., 2010). Syngenta's newly-released Tenacity™ (mesotione) will control annual bluegrass, but it is currently not on the Tenacity label. Three fall applications starting in late September and spaced two weeks apart have been most effective in work at Purdue and Univ. of Illinois, but control can be very inconsistent (like most annual bluegrass controls). Tenacity is extremely safe prior to seeding or over new seedlings, and will fit in nicely during overseeding Kentucky bluegrass into fairways or athletic fields. Research is currently underway on Tenacity and hopefully annual bluegrass will eventually be listed on the label.

Arysta's amicarbazone is under development, and we have been working with it for a number of years with varying success. It is currently labeled for rice, and thus likely would not be dif-

ficult to label for turf. Determining the application season, rate, and frequency for control of annual bluegrass while maintaining safety on desired turf is proving difficult. It is too early to tell if and when it will be released to the industry.

Growth regulators

Paclobutrazol (Trimmit®, TGR™) and flurprimidol (Cutless®) selectively inhibit growth of annual bluegrass while not affecting creeping bentgrass growth. Though these growth regulators were previously recommended only during the summer, recent experience suggests applications every two or four weeks throughout the spring, summer, and fall are most effective in limiting annual bluegrass while encouraging spread of creeping bentgrass (Woosley et al., 2003). Trinexapac (Primo® or T-NEX™) will not help to control annual bluegrass, but will actually improve the health and summer performance of the grass. Research from New York on fairways indicates that any annual bluegrass reduction with preemergence herbicides or Prograss is reversed by using trinexapac (Rossi, 2001) .Trinexapac should not be used in an annual bluegrass control program, but is essential in an annual bluegrass encouragement/management program. Legacy™ is a combination of flurprimidol and trinexapac; the flurprimidol controls annual bluegrass growth while the trinexapac tends to reduce the off-color expected from the flurprimidol. Early data suggest that this combination should still reduce annual bluegrass spread (Bigelow et al., 2007). Mefluidide (Embark®) and ethephon (Proxy®, Ethephon) are growth regulators that can control annual bluegrass seedheads when applied shortly after green-up of annual bluegrass in the spring. During seedhead production, this strategy can improve visual quality of any turf area as well as increase smoothness of putting greens, but it tends to strengthen the annual bluegrass, allowing it to better survive summer weather.

Controlling annual bluegrass in roughs and home lawns

Turn off the irrigation in July and/or August to force the desired grass into dormancy, which will kill the annual bluegrass. Apply any of the labeled preemergence herbicides (other than siduron) and start regular irrigation to bring the desired turf out of dormancy. The desired turf should recover fairly quickly, whereas the preemergence herbicide will prevent the annual bluegrass from germinating. A second application may be needed later in the fall or early next spring to maximize annual bluegrass control. Since some seed will remain viable, continue the late summer preemergence herbicide application for two to three years or until annual bluegrass is no longer a problem. This strategy gets more complicated if the annual bluegrass was so dense that reseeding is required. If so, start this program as early in the summer as possible (early to mid-July if possible), reseed as soon as the area enters dormancy (late July or earlier), and start watering immediately to encourage germination of the desired turf. The annual bluegrass likely will not germinate until average air temperatures return to 70F (Kaminski et al., 2007), so a preemergence herbicide should be applied as soon as the label allows after emergence of the desired species. Dithiopyr has the most flexible label for applications over new seedings. Annual bluegrass in roughs and lawns can also be controlled selectively by Prograss. Though this product is not available to homeowners, it can be used by professionals on residential turf. Generally three applications in the fall are most effective, but be sure to follow label precautions.

Controlling annual bluegrass in sports fields

Annual bluegrass control in sports fields is difficult because the turf is constantly worn, opening voids where annual bluegrass can infest. Soil compaction, frequent fertilization, and frequent light watering to encourage germination and establishment of regular overseedings further encourages annual bluegrass. A late summer preemergence herbicide and/or Prograss can be used in the fall on spring-use baseball fields. On heavily used fall-use fields that require overseeding, perennial ryegrass can be seeded into a Prograss application with no delay, or Prograss can be applied to newly-seeded perennial ryegrass two weeks after emergence. However, Prograss is not nearly as safe on Kentucky bluegrass, and seeding must be delayed at least six weeks after the final Prograss application, or Prograss can be applied to newly-seeded Kentucky bluegrass eight weeks after emergence. This virtually eliminates either fall applications of Prograss or fall overseeding of Kentucky bluegrass. However, Kentucky bluegrass can be dormant-seeded into fields treated previously with Prograss with no consequences. So consider overseeding with perennial ryegrass during the fall as needed to maintain turf density and playability, make three applications of Prograss in September through October to control annual bluegrass, and then dormant seed with Kentucky bluegrass in November or December after the playing season. Fall-use fields are where Tenacity herbicide may have a good fit because it is extremely safe before or after seeding Kentucky bluegrass or perennial ryegrass, but annual bluegrass is currently not on the Tenacity label.

Controlling annual bluegrass in fairways

Creeping bentgrass fairways: A low-impact approach is with paclobutrazol or flurprimidol applied spring, summer, and fall to help shift the balance in favor of creeping bentgrass over annual bluegrass. Secondly, an additional preemergence herbicide application in early September and again in December or March will help limit germination. To make this strategy even more aggressive, apply Prograss in fall or fall+spring in addition to the growth regulators and preemergence herbicides. This approach may provide complete control, but be sure to follow label precautions for Prograss use before or after applying growth regulators. Summer applications of Velocity can also aggressively remove annual bluegrass. Start applications once temperatures are regularly higher than 70F in late May or early June. Multiple applications are needed every two to four weeks; the rate will be dictated by how aggressively you want to control the annual bluegrass. Applications can be continued into the fall until desired annual bluegrass reduction is reached, and fall preemergence herbicides should be used to prevent reinfestation. Multiple years of this strategy will likely be needed.

Kentucky bluegrass fairways: Growth regulators will likely not selectively reduce annual bluegrass in Kentucky bluegrass, and Velocity will damage many of the Kentucky bluegrass cultivars. Therefore, fall or fall+spring applications of Prograss combined with fall preemergence herbicides is currently the best strategy. Tenacity may be an option in the future for annual bluegrass control in Kentucky bluegrass fairways.

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Controlling annual bluegrass in greens

Fewer options exist for controlling annual bluegrass on low-mowed greens. A fall application of bensulide will help prevent germination of annual bluegrass, but has no effect on established plants. Prograss is not labeled for greens, but the latest label for Velocity will apparently include greens use. Growth regulators may have the most potential because they work well at fairway height where the creeping bentgrass can effectively outgrow the regulated annual bluegrass. However, this approach is not well-documented on greens-height turf. The ability for creeping bentgrass maintained under the low-mowed greens environment to outgrow annual bluegrass is greatly reduced compared to fairway height, regardless of differential growth regulation. Much of the research with growth regulators used successfully on greens was done in the southeast U.S. where there was tremendous pressure from summer weather to help push the balance in favor of the bentgrass over annual bluegrass. Furthermore, much of the research on greens was done ten or more years ago when only a few yearly applications were made as opposed to our now typical every-other-week applications of growth regulators. Practical experience suggests that paclobutrazol or flurprimidol applied every two weeks during the growing season can reduce annual bluegrass on greens, but there is no research data in the upper Midwest to support this. Current work at the University of Nebraska, Purdue, Michigan State, and Kentucky will provide insight on annual bluegrass control on greens with growth regulators or herbicides, but preliminary data already suggest control is inconsistent.

Control of annual bluegrass is difficult at best. However, a combination of cultural and herbicidal practices can be successful in producing a turf that requires less inputs and performs more consistently and reliably year-round.

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Author Note: The mention of product names does not constitute an endorsement by the University of Nebraska or a non-endorsement of products not mentioned.

2011 Nebraska Grazing Conference

The 11th annual Nebraska Grazing Conference will be held at the Kearney Holiday Inn on August 9-10. As always, there will be a mixture of university and agency speakers as well as those who manage small and large grazing operations. These speakers will be from Nebraska and other states.

This year's topics include management strategies in grass-fed as well as traditional grazing operations in summer and winter seasons, controlling invasive species, managing for both livestock production and wildlife habitat, how Nebraska's vegetation has changed over the past century, and much more!

The two-day pre-registration fee of $80 (**payable to 2011 Nebraska Grazing Conference**) is due to the Center for Grassland Studies by August 1. The fee covers lunch both days, the evening banquet, break refreshments, and the conference proceedings. One-day registrations are also available. Registration fee will be waived for students who will still be in high school next year and who pre-register by the Aug. 1 deadline, compliments of the UNL College of Agricultural Sciences and Natural Resources. Reduced registration fees apply for other full-time students. Late fees apply to registrations postmarked after August 1 and to walk-ins.

Participants of any of the previous Nebraska Grazing Conferences as well as all Nebraska extension educators will receive a brochure in the mail in June. Others may contact the CGS office to be placed on the mailing list. Information and the registration form will also be on the CGS Web site (www.grassland.unl.edu).

The conference is a collaborative effort with many co-sponsors. Contact the Center for Grassland Studies, one of the underwriting sponsors, with questions.

International Grasslands Symposium to be Hosted at Kansas State University

On September 12-14, 2011, Kansas State University will sponsor an international symposium titled "Grasslands in a Global Context." The event, which is planned to celebrate important milestones reached at Konza Prairie Biological Station (KPBS) and the associated Konza Prairie Long-Term Ecological Research (LTER) program, will bring together researchers, scientists, professors, students, and others who are interested in the research and promotion of grasslands.

With the emergence of Konza as a global research platform coinciding with the 30th anniversary of the LTER research program, the stage is set for a synthesis of past, ongoing, and new Konza research results with studies from other grassland systems from around the world. Such a synthesis will be invaluable for broadening the level of inference of Konza results, identifying generalities in the functioning of grassland and grass-dominated ecosystems around the globe, and identifying critical research gaps that can drive future studies. Professional interaction and academic outcomes of this symposium will form the foundation of a collaborative publication, advancing the synthesis of complementary research on an international level. Organizers of this symposium seek to place site-based research from Konza Prairie in a global context to improve the understanding of grasslands and savannas in both North America and around the world.

More information, including the call for poster presentations (due June 1) can be found at the conference site, www.dce.k-state.edu/conf/grassland.

Apply Now for 2011 Nebraska Ranch Practicum

The Nebraska Ranch Practicum is an eight-session, comprehensive educational program initiated in 1999 to integrate information into a framework for decision-making in ranch management based on an understanding of seasonal patterns in markets, livestock nutrient requirements, and quantity and quality of forage resources. It gives ranchers cutting-edge research in range livestock production from the University of Nebraska-Lincoln. Natural resources, livestock management and economic reality are integrated throughout the Practicum. Cow-calf producers, veterinarians, Extension educators, natural resource agency personnel, and other advisors to the industry can benefit from this program, which is taught by an interdisciplinary team of UNL professors and Extension educators.

Aerial view of Gudmundsen Sandhills Laboratory.

During the three-season UNL Extension class, participants have the opportunity to expand their knowledge with an overview of ranching practices from new angles. Throughout the program, participants will cover a variety of topics including the effective use of decision support tools to evaluate management and marketing alternatives, plant identification, range conditions and grazing strategies, wildlife management, evaluation of cow body condition scores and beef cattle production systems.

Classroom activities will open and close the Practicum in North Platte, with the remainder of the classes conducted at UNL's Gudmundsen Sandhills Laboratory, a working ranch with education and research facilities, near Whitman. The 12,800 acre ranch provides hands-on experience to ranchers. Practicum dates are June 8 and 9, July 7, Sept. 7 and 8, and Nov. 3, 2011, and Jan. 4 and 5, 2012. Scheduling of the sessions from June to January is designed to cover the production cycle of both livestock and forage resources.

The 2011 Nebraska Ranch Practicum can count for college or continuing education credit. Participants looking to earn credits should make arrangements during the initial session.

Applications are due May 2, 2011 with a $250 deposit. Enrollment is limited to 35 participants and applicants will be notified of their status no later than May 16. Deposits will be refunded if space is not available. The balance of $400 is due June 8 for those enrolled in the class. The total cost of $650 includes educational materials, noon meals and breaks. Travel and lodging are to be handled privately.

For applications or additional information, contact Brent Plugge at 308-236-1235, e-mail bplugge1@unl.edu, or visit the Practicum web site, nebraskaranchpracticum.unl.edu.

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World-renowned UNL wheat breeder **P. Stephen Baenziger** is the first to hold the Nebraska Wheat Growers Presidential Chair, an endowed professorship sponsored through a new agreement with Bayer CropScience, which is partnering with UNL on wheat-breeding research. In addition to the endowed professorship, the agreement makes funds available for support of UNL wheat research and education programs, and plans for the company to establish its first North American wheat breeding station near Lincoln.

For "exhibiting extraordinary efforts toward achieving the goals and objectives of the Society," **Walter Schacht** was presented the 2010 Range Management Service Award at the annual Nebraska Society for Range Management in October. Then at the national SRM meeting in February, the Range Science Education Council and the Society for Range Management announced that Schacht was the recipient of the 2011 Outstanding Undergraduate Teaching Award, which recognizes individuals who have demonstrated excellence in teaching, advising, and mentoring over an extended period. To top things off, for his passion in educating others about the value of our natural resources, Schacht was also named one of the 2011 Nebraska Heroes by *Nebraska Life Magazine.* As a side note, Schacht is spending 2011 teaching and conducting research in Namibia, Africa.

Don Adams was honored at the 2010 Nebraska Cattlemen Convention with the Nebraska Cattlemen Industry Service Award. The award is presented to an individual or business that has provided ways of improving Nebraska cattle operations while helping to maintain a high quality of beef.

At the 2010 ASA/CSSA/SSSA International Annual Meetings late last year, **Richard Ferguson** received the Werner L. Nelson Award for Diagnosis of Yield Limiting Factors.

Scott Hygnstrom and **Ellen Paparozzi** received 2011 Holling Family Awards for Teaching Excellence. The annual awards honor outstanding teaching in UNL's Institute of Agriculture and Natural Resources.

Nebraska Game and Parks Commission botanist **Gerry Steinauer** received the 2011 Charles L. Whitney Outstanding Service Award in recognition of his decade-long service to the Prairie Plains Resource Institute.

The list of 2010-11 recipients of the UNL Teaching Council and UNL Parents Association special recognition of faculty and staff who have made a significant difference in their students' lives includes **Dennis Brink, Chris Calkins, Tiffany Heng-Moss, Darrell Mark** and **Bryan Reiling**.