

NCWSS • News

North Central Weed Science Society

Vol 28, Number 3, Fall 2011

www.ncwss.org

- ▶ *Welcome to Milwaukee* 1
- ▶ *A Word From Your President* 2
- ▶ *2011 Program Information* 3
- ▶ *Giant Ragweed Biology and Management Symposium* 4
- ▶ *Symposium on Invasive Plants in the Midwest* 4
- ▶ *2011 Weed Olympics* 5
- ▶ *People and Places* 10
- ▶ *1st Annual North American Plant Ecology and Management Short Course* 10
- ▶ *Position Announcements* 12

Welcome to Milwaukee, Wisconsin (66th Annual Meeting)



The local arrangements committee and Milwaukee are pleased to be hosting the 66th annual meeting of the NCWSS. Milwaukee has been the site of many past meetings; 1950, 1960, 1975, 1979, 1986, 2001 and it just seems like yesterday, 2006.

The newly-renovated Hyatt Regency Milwaukee hotel is an ideal location for our meeting. Located in heart of the city's bustling downtown, it is connected by skywalks to many locations including the Shops of Grand Avenue. If you have time during the meeting, we suggest a tour of the Harley Davidson headquarters or a tour of a Milwaukee Brewery. Also, for you sport fans, the Milwaukee Bucks will be hosting Charlotte (if the strike is settled) on Wednesday, December 14th, at the nearby Bradley center.

Plan now to attend our 66th annual meeting on December 12-15th. You can register for the meeting and make your hotel reservations at our website; NCWSS.org. To receive the meeting rate, please make your hotel reservation prior to November 21. To schedule meals, hospitality rooms, or other events, please contact Phil Banks: ncwss@marathonag.com or 575-527-1888. If you have other questions regarding the meeting, please contact Mick Holm, Local Arrangements Chairman: Mick.f.Holm@usa.dupont.com or 608-231-9961.

**The NCWSS Newsletter
is Edited by Harlene
Hatterman-Valenti,
Arranged by Glenn Nice
and Filled by it's Members**



North Central
Weed Science Society

Continued on next page

Welcome to Milwaukee - Continued

Traveling to Milwaukee

Milwaukee is serviced by the General Mitchell International Airport. Transportation from the airport to the Hyatt is available through Go Riteway Transportation. Reservations are best made in advance: airportshuttle@goriteway.com or 800-236-5450. Cost is \$13.00 one way or \$24.00 RT. A taxi will run about \$30.00.

Parking: Parking is available next to the hotel for \$20.00/day. Hotel valet parking is \$23.00/day.

Hotel Address

Hyatt Regency Milwaukee
333 West Kilbourn Avenue,
Milwaukee, Wisconsin, USA 53203
Tel: 1-414-276-1234 Fax: 1-414-276-6338

DRIVING DIRECTIONS TO THE HOTEL

From the South – (Chicago, O'Hare airport and the Milwaukee airport)

Take 94 West / 43 North towards downtown Milwaukee. In downtown, follow the center lane marked 43 – North / Green Bay. Follow 43 – North to the McKinley / Fond Du Lac Avenue. Go east on McKinley to 6th St. Turn right on 6th St. Go 4 blocks to Kilbourn Avenue. Turn left on Kilbourn. Our Milwaukee Wisconsin luxury hotel will be on your right at 4th and Kilbourn.

From the North – (Green Bay, Kohler, Sheboygan)

Take 43 - South into Milwaukee. Exit at McKinley / Fond du Lac Avenue. Take McKinley east to 6th St. Turn right on 6th St. Follow 6th St. to Kilbourn Avenue. Turn left on Kilbourn. The Hyatt will be on your right at 4th and Kilbourn.

From the NW – (Appleton, Oshkosh, Fond du Lac, Germantown)

Take Hwy. 41 South to Hwy. 45 South. Follow 45 South to 94 East. Take 94 East to downtown Milwaukee. In downtown, take the exit ramp for 43 North. From 43 - North exit at McKinley / Fond du Lac Avenue. Take McKinley east to 6th St. Turn right on 6th St. Follow 6th St. to Kilbourn Avenue. Turn left on Kilbourn. Our Milwaukee Wisconsin luxury hotel will be on your right at 4th and Kilbourn.

From the SW – (Rockford, Beloit, Lake Geneva)

From Rockford: take 90 North to Beloit to 43 North and follow directions below:

From Beloit and Lake Geneva: 43 North to 894 – East / 43 – North bypass. From bypass take left lanes to 43-North towards downtown Milwaukee. In downtown take the center lane marked 43- North Green Bay.

On 43 – North exit at McKinley / Fond du Lac Ave. Take McKinley east to 6th St. Turn right on 6th St. Follow 6th St. to Kilbourn Avenue. Turn left on Kilbourn. The Hyatt will be on your right at 4th and Kilbourn.

From the West – (Minneapolis, Eau Claire, Madison, Waukesha)

Take 94 East into downtown Milwaukee. In downtown, take the exit ramp for 43 North. From 43 – North exit at McKinley / Fond du Lac Avenue. Take McKinley east to 6th St. Turn right on 6th St. Follow 6th St. to Kilbourn Avenue. Turn left on Kilbourn. The Hyatt will be on your right at 4th and Kilbourn. ♦

A Word From Your President - Mark Wrucke

As we start to close out another season in the North Central Region – one filled with too much rain, no rain, extreme heat and extreme cold – we all need something to look forward to with anticipation. Our annual meeting will be held in Milwaukee, WI on Dec. 12-15 with the highlights addressed in Bryan Young's article in this newsletter. Many thanks to Bryan for his leadership in developing a great program with interesting symposia and thank you to our members willing to coordinate the symposia. This year we will be having a joint meeting with the Midwest Invasive Plant Network and the Invasive Plant Association of

Wisconsin. This adds another layer of complexity when organizing the agenda but Bryan has done an excellent job which should allow our members opportunities to attend a wide range of sessions.

The first ever Weed Olympics was hosted by Greg Armel and Jim Brosnan at the University of Tennessee in Knoxville, TN on July 26-27. This is the first time that students from the North Central, Northeastern, Southern and Western Weed Science Societies competed in the same contest. The NCWSS was well represented with 10 graduate

and 2 undergraduate teams competing. This was a monumental undertaking with congratulations and thanks to Greg, Jim, the University of Tennessee and all the volunteers who helped to make this a big success. Congratulations to the graduate team from Purdue University consisting of Chad Barbham, Paul Marquardt, Jared Roskamp and Ryan Terry on taking top honors across all regional societies. Elsewhere in this newsletter we have complete details on the award winners and activities of the contest.

One of the items discussed at the summer meeting of the NCWSS Executive Board was to provide financial support to an EPA tour of weed resistance in the Midwest. The three day tour was attended by 10 members of the EPA which traveled through Missouri, Illinois and Arkansas to view the current state of weed resistance in this area. They were able to visit with numerous farmers, retailers, consultants and others intimately involved in weed control. NCWSS members Dr. Kevin Bradley and Dr. Bryan Young

together with Dr. Jason Norsworthy coordinated the tour and provided insight on weed resistance issues in their states. This event was well received and certainly was eye-opening for the EPA participants. I am proud that NCWSS agreed to help support this tour and I encourage all of our members to seek additional opportunities for similar outreach efforts in the future. These types of activities will become even more important in the future and fulfills one of the primary functions of our organization to provide educational opportunities in weed science.

In closing, our goal is to remain a member focused society and your input and participation is important. Please take the opportunity to attend our annual meeting, take part in the many paper and poster sessions and actively participate in committee meetings of interest. Your participation as an individual is essential for our success as a society. I look forward to seeing you in Milwaukee. ♦

2011 Program Information - Bryan Young

The 2011 NCWSS Program is coming together with a wide diversity of topics which should be interesting and worthwhile. Local arrangements Chair, Mick Holm, has been working closely with the staff at the Milwaukee Hyatt Regency to ensure that meeting space will be convenient and accommodating for all sessions. This hotel proved to be an excellent venue for our 2006 NCWSS meeting when our conference last hosted the Midwest Invasive Plant Network (MIPN) and the Invasive Plants Association of Wisconsin (IPAW) organizations.

Our general session on Tuesday morning will feature one of the most pressing issues facing weed management, herbicide-resistant weeds. This summer the NCWSS was co-sponsor of a three-day field tour through AR, IL, and MO in which U.S. EPA representatives gained first-hand experience of the magnitude and weed management challenges presented by herbicide-resistant weeds, especially weeds resistant to glyphosate. Thus, we have a unique opportunity to hear what the U.S. EPA thinks about the problem and what, if any, future activity the U.S. EPA may have planned to address the issue. Wednesday will be the start of an all-day session on invasive plants which will have participation by all three organizations. Keeping with recent tradition, Wednesday will be the noon banquet for presentation of all of the NCWSS awards and the day will conclude with a reception that evening.

Several special sessions or symposia are being planned in addition to the aforementioned all-day session on invasive plants. These symposia and special sessions cover a wide diversity of topics with something of interest for everyone.

- Emilie Regnier and George Kegode are co-chairs of the Giant Ragweed Biology and Management which will offer a diversity of management considerations and international expertise.
- Terry Carmody has agreed to once again coordinate the very popular session on What's New in Industry?

Title submission using the web-based submission system worked very well with only a few instances for author assistance. Please keep in mind that this same system will be used for submission of all abstracts and oral PowerPoint presentations. Complete directions for submission of abstracts are contained in the NCWSS Summer Newsletter and are due by November 18. PowerPoint files for oral presentations need to be loaded to the website approximately 7 days prior to the conference. Please follow the directions for preparing your PowerPoint presentation which are posted on the NCWSS website. All NCWSS committees will convene during the conference so be sure to check the schedule contained in the printed program. Committee meetings are open to all members so please review the program and attend the meetings that interest

2011 Program Information - Continued

you. Your input is critical to the formation of future conferences and the role our society plays in both the scientific community and as educators for students and in commercial weed management systems.

Please plan on attending the 2011 NCWSS meeting in Milwaukee, WI. Please complete your meeting registration and make your hotel reservation by November 21 to obtain the best rates. ♦

Giant Ragweed Biology and Management Symposium, December 14, 2011, at the NCWSS Annual Meeting



Giant ragweed is a major weed for farmers and allergy sufferers in North America. As a native species, it normally colonizes upland and riparian edge habitats that frequently border crop fields. Despite natural constraints on giant ragweed fecundity and survival, its range as an agricultural weed is expanding across the central U.S., and herbicide-resistant populations have increased dramatically in the last ten years. This symposium will provide an overview of current research on giant ragweed biology and consider new approaches to its management. Lessons learned and experiences gained from the closely related species, common ragweed, will also be discussed. Topics will include common/giant ragweed ethnobotany, ecological genetics, geographic variation, impact in Europe, seed ecology, soil and animal-interactions, response to cropping system, population modeling for management, characteristics of herbicide resistant populations, grower perceptions, and more. The symposium is funded by NCWSS and a grant from USDA.

For further information, contact Emilie Regnier (regnier.1@osu.edu) and George Kegode (GKEGODE@nwmissouri.edu).



Symposium on Invasive Plants in the Midwest Expects a Large Crowd in Milwaukee

At this year's conference, the North Central Weed Science Society is collaborating with the Midwest Invasive Plant Network (MIPN) and the Invasive Plants Association of Wisconsin (IPAW) to host a two-day symposium on invasive plants in natural areas. The symposium, scheduled for December 14-15, is expected to draw in 200-300 scientists, land managers, agency staff, and interested citizens. The invasive plants symposium will kick off with a plenary session on Wednesday morning, which will cover a broad range of topics, including both science and policy talks, focusing on the national and local scales. Gordon Brown from the Department of the Interior and Barney Caton from USDA-APHIS will provide updates on recent developments on programs, funding, and policy at a national level. Jeff Dukes from Purdue University will share results of his research on the effects of climate change on invasive plants. Chuck Barger, President of the National Association of Exotic Pest Plant Councils, will talk about early detection and rapid response for new invasive plants, and Jim Reinartz from the University of Wisconsin-Milwaukee will talk about preventing the spread of invasive plants in the Milwaukee area.

The symposium will continue with two concurrent sessions on Wednesday afternoon and all day Thursday. In addition to contributed papers by NCWSS, MIPN, and IPAW members, the symposium will offer talks on a variety of topics of interest to both scientists and natural resource managers, including early detection and rapid response, management techniques, planning and prioritization of invasive plant projects, assessing invasion potential of species in trade, and Cooperative Weed Management Areas. A poster session will allow further opportunities for interaction and discussion.

Admission to the symposium on invasive plants will be included in the full NCWSS conference registration fee. Reduced registration rates are also available just for the two-day symposium. By partnering with NCWSS for this symposium, MIPN and IPAW hope to encourage continued interaction between our organizations and foster collaboration. Please consider attending some or all of the talks.

Mark Renz (MIPN President and NCWSS member) and Kate Howe (MIPN coordinator).

2011 Weed Olympics



For the first time ever, students involved in weed science in the North Central Region had an opportunity to compete against students from across the United States. The Weed Olympics were held on July 26-27 at the University of Tennessee at Knoxville, TN and were open to student members of the North Central, Northeastern, Southern and Western Weed Science Societies. Greg Armel and Jim Brosnan together with numerous volunteers from the University of Tennessee and from across the societies organized this event which had about 150 individuals

participating in a variety of competitive events. All together 28 graduate teams and 11 undergraduate teams participated with 10 graduate teams and 2 undergraduate teams representing the NCWSS. Contest rules were developed from all the regional societies with regional awards being presented to individuals and teams from each of the four weed science societies. Team and individual awards were also presented to the top performers across all four regions.

Purdue University took top honors at the graduate level with a team that included Chad Brabham, Paul Marquardt, Jared Roskamp and Ryan Terry. Guelph University won at the undergraduate level with team members Jessica Gal, Thomas Judd, Adam Parker and Michael Vanhie. Individual winners were Jason Parrish, a graduate student at the Ohio State University, and Dan Tekiela, an undergraduate student at Virginia Tech.



North Central Regional award winners include

Graduate Level



1st Place Team – Purdue University (Ryan Terry, Chad Brabham, Paul Marquardt, and Jared Roskamp)

2nd Place Team – University of Missouri (Eric Riley, Kristin Rosenbaum, Tye Shauck and Brock Waggoner)

3rd Place Team – Ohio State University (Nathan Miller, Jason Parrish, Nicholas Read and Stephanie Wedryk)



1st Place Individual – Jason Parrish (Ohio State University)



2nd Place Individual – Terry Ryan (Purdue University)



3rd Place Individual – Tye Shauck (University of Missouri)

1st Place Weed ID – Chad Brabham (Purdue University)

1st Place Herbicide ID – Tye Shauck (University of Missouri)

1st Place Farmer Problem – Ashley Schlichenmayer (University of Missouri)

1st Place Written Sprayer Calibration – Jason Parrish (Ohio State University)

1st Place Team Sprayer Calibration – Ohio State University (Nathan Miller, Jason Parrish, Nicholas Read and Stephanie Wedryk)

Undergraduate Level



1st Place Team – Ohio State University (Jason Rethman, Samantha Konkle, Beverly Lennartz, and Christine Shannon).



2nd Place Team – Ohio State University (Rebecca Lyon, Michelle Shepherd and Jason Witpok).

- 1st Place Individual – Michelle Shepherd (Ohio State University)
- 1st Place Weed ID – Christine Shannon (Ohio State University)
- 1st Place Herbicide ID – Rebecca Lyon (Ohio State University)
- 1st Place Farmer Problem – Michelle Shepherd (Ohio State University)
- 1st Place Written Sprayer Calibration – Jason Witpok (Ohio State University)
- 1st Place Team Sprayer Calibration - Ohio State University (Samantha Konkle, Beverly Lennartz, Jason Rethman and Christine Shannon)

One of the highlights at the evening awards banquet included presentations by representatives from each regional society. Dr. Cal Messersmith from North Dakota State University represented the NCWSS and discussed the history of the NCWSS and its weed contest. This was an excellent opportunity for students to interact with other students from across the United States and Canada as well as learn more about weed science. Thank you to the University of Tennessee and all the volunteers that help to make this contest possible.

People and Places

New Publications

Modelling evolution and management of glyphosate resistance in *Amaranthus palmeri*

P NEVE*, J K NORSWORTHY_, K L SMITH_ & I A ZELAYA. Weed Research 51, 99–112.

Summary:

A population-based model was developed to simulate the evolution of glyphosate resistance in populations of *Amaranthus palmeri*. Model parameters were derived from published and unpublished sources, and the model was implemented using previously established principles and methods. Sensitivity analyses indicated that the model was sensitive to variations in population size, mutation rate and seed bank dynamics. A distribution was assigned to these parameters and Monte Carlo type simulations were performed. Simulation results are therefore derived from a range of possible input parameters, enabling the risk of resistance evolution

to be assessed when parameter values were unknown, uncertain or variable. In the _worst-case_ of five annual glyphosate applications in continuous glyphosate resistant cotton, evolution of glyphosate resistance was predicted in 39% of populations after 5 years and in c. 60% of populations after 10 years. These results are consistent with observations of the timescale for evolution of glyphosate resistance in *A. palmeri* in the field.

The main drivers for glyphosate resistance evolution were selection pressure and population size, the greatest risks being associated with the largest *A. palmeri* populations. Risks of resistance were reduced when one of the five glyphosate applications was replaced by another mode of action with identical efficacy. However, not all glyphosate applications exerted the same selection pressure. Application of a soil residual herbicide at the time of crop sowing can provide control of *A. palmeri* well into the growing season and significantly reduced the rate and risk of glyphosate resistance evolution.



1st Annual North American Plant Ecology and Management Short Course (NAIPSC)



Participants at the 2011 NAIPSC learning about field research on invasive plant species (Photo credit – G. Hanson, UNL).

August 25, 2011. The first annual North American Invasive Plant Ecology and Management Short Course (NAIPSC) was held July 6-8, 2011 at the University of Nebraska-Lincoln West Central Research & Extension Center in North Platte, NE. The 38 participants that attended the 2011 NAIPSC included landowners,

land managers from several agencies (e.g., NRCS, Nebraska Department of Agriculture, Army Corps of Engineers), county weed superintendents, and graduate students from as far away as the state of Washington. The 3-day course advanced participant understanding in many areas of invasive plant ecology and management.

Overall, participants rated the NAIPSC as a good or excellent program. Several participants commented that the NAIPSC was one of the best meetings on invasive plant species that they had attended in many years or ever. All participants improved their knowledge of long-term weed management in natural systems and many had plans to look for new ways to integrate control efforts in the near future using what they had learned at the NAIPSC. As a result of the NAIPSC experience, a majority of the participants had gained new skills and abilities in preventing invasive plant infestations using early detection rapid response and properly identifying invasive plant species with keys and computer programs. More than half of the participants stated that they would make management changes as a result of the NAIPSC. For example, several participants said they would try to

improve their approach in working with landowners to better integrate management, identify species, or adopt revegetation techniques to control invasive plant species. All participants felt that the resources they spent on the NAIPSC were a good investment, even if they were already familiar with the material. One participant said that the NAIPSC was the best program they had attended in years and it gave them more depth from which to teach others.

At the 2011 NAIPSC, participants were exposed to and involved in discussions on ecological aspects of integrated invasive plant management. Restoration or revegetation is one 'tool' that is not often included in strategies for managing invasive plant species. In addition, careful surveying and monitoring of invasive plant species is a newer practice in invasive plant management that is now possible through advancements in technology and computer modeling. The use of risk maps to determine potential spread and establishment of invasive plant species will be important as fewer resources are available to manage an increasing number of infested acres. Practices associated with these newer as well as more traditional methods taught at the 2011 NAIPSC could be directly implemented on more than 150,000 acres with an indirect impact on more than 1.3 million acres.

Over 20 different teaching and learning opportunities were offered during the 3-day NAIPSC to close to 40 participants. Strategic identification and monitoring of invasive plant populations in combination with revegetation could ultimately result in fewer acres

treated regularly with herbicides and improved habitat that is more diverse and contributes to a normally functioning and balanced ecosystem. A sustainable and integrated invasive plant management plan has benefits to society and the environment. As land owners and managers become aware of and educated on the ecological principles for long-term management of invasive plant species, their activities have direct effects on the acreages they manage or own and indirect effects on neighbors and others that they interact with over time.

The NAIPSC is a venue that was created for the exchange of information between experts in various fields of invasive plant ecology and management and participants from a range of backgrounds and experiences. The participants were able to see, hear, and talk about the latest approaches for invasive plant management. In addition, participants, including graduate students, had the opportunity to apply their knowledge gained by completing a pre-/post-course test and a series of problem sets related directly to the material covered in the NAIPSC. It is anticipated that through continued dialogue via the NAIPSC web page, participants will have an interactive resource to refer to, should their materials be insufficient in answering their questions related to the ecology and management of invasive plant species. Organizers of the NAIPSC are already planning for 2012, which they anticipate to be just as good, if not better than 2011. The NAIPSC is now on Facebook and Twitter. Check the NAIPSC website (<http://ipscourse.unl.edu>) for details. ♦

N The NCWSS Newsletter is edited by Harlene
C Hatterman-Valenti, put together by Glenn
W Nice and filled by the members of NCWSS

S If you are a member of the NCWSS and
S wish to post something weed science related
please contact Harlene Hatterman-Valenti

Position Announcements - Missouri-Columbia

Weed Science Research Specialist/Research Associate University of Missouri-Columbia

RESPONSIBILITIES: The primary responsibility of this position will be to assist with the management of a weed science field research program conducted under the direction of Dr. Kevin Bradley in the Division of Plant Sciences at the University of Missouri. This will require the candidate to be responsible for the entry of research protocols, collection and entry of data associated with approximately 80 to 100 research trials each year, and generation of summaries and annual research reports for industry cooperators, academic colleagues, and professional societies. Additionally, the candidate will be expected to conduct standard agricultural field maintenance practices such as land preparation, planting, spraying, and harvesting of corn, soybean, wheat, grain sorghum, and forages in areas that will be utilized for small-plot research. The candidate will also be expected to work independently and cooperatively with other staff, graduate students, and faculty in the weed science program and Division of Plant Sciences.

QUALIFICATIONS: B.S. in biological or agricultural sciences, M. S. preferred. Experience in applied weed science and/or crop production field and greenhouse research is preferred, as well as experience with agricultural research management and other data analysis software. Pesticide applicator and commercial driver's license also preferred, but not required. Consideration will be given to candidates with an equivalent combination of related education or work experience.

SALARY AND BENEFITS: Salary will be commensurate with qualifications and experience. Full MU Healthcare benefits are available with this position.

CLOSING DATE: Open until filled and available immediately.

CONTACT: Please submit a resume, letter of application explaining fit with qualifications sought, academic transcripts, and names, addresses and phone numbers of at least 3 references. Other questions pertaining to the job may be directed to:

Dr. Kevin Bradley, Associate Professor,
Division of Plant Sciences,
University of Missouri, 201 Waters Hall,
Columbia, MO 65211; 573-882-4039;
bradleyke@missouri.edu.

Position Announcements - Nebraska-Lincoln

University of Nebraska-Lincoln Institute of Agriculture and Natural Resources Weed Management Specialist Department of Agronomy and Horticulture

DESCRIPTION: University of Nebraska-Lincoln, Institute of Agriculture and Natural Resources (IANR), Department of Agronomy & Horticulture invites applications for a Weed Management Specialist, Assistant Professor, 12-month, tenure-track position, with 50% extension and 50% research responsibilities. The focus of this position is on weed management in Nebraska cropping systems, and integrated weed management practices for environmental risk reduction. The position is located in Lincoln, NE.

RESPONSIBILITIES: Will include investigations of weed management practices in crops with special regard to environmental impact and efficient irrigation water use related to weeds and weed management. The successful candidate will be expected to lead an internationally-recognized, externally funded research and extension program in weed management in cropping systems for optimal productivity while reducing environmental impact. Opportunities exist to collaborate with other scientists within the IANR and to contribute to the Water for Food Institute.

Extension responsibilities include contributing to the Crop Production Clinics, the Guide for Weed Management in Nebraska, and outreach activities serving a diverse clientele including farmers, government agencies, crop consultants, businesses and University of Nebraska extension educators. Additional responsibilities include supervision of graduate students and involvement in distance educational programs. Ph.D. degree, or Ph.D. in place by date of hire, required in weed science, agronomy, or a closely related discipline. A demonstrated ability to publish original research in peer-reviewed journals, and research experience and expertise in weed management are required. Ability to work effectively as a team member, excellent written and verbal communication skills, and demonstrated experience in the classroom and/or with extension audiences are requirements of this position. Demonstrated experience in writing grant proposals and strong leadership skills are preferred.

To review a complete listing of the position description and to apply, go to: <http://employment.unl.edu> and search for requisition # 120002 and complete the Faculty Academic Administrative Information Form. Attach a letter of application including an overview of research and extension experience and interests, a curriculum vitae, and copies of transcripts. Arrange for 3 letters of reference to be emailed to: cwendt1@unl.edu. Review of applications will begin on October 31, 2011 and continue until the position is filled or the search is closed.

The University of Nebraska has an active National Science Foundation ADVANCE gender equity program, and is committed to a pluralistic campus community through affirmative action, equal opportunity, work-life balance, and dual careers.

Position Announcements - Nebraska-Lincoln

Institute of Agriculture and Natural Resources University of Nebraska-Lincoln

The Institute of Agriculture and Natural Resources (established in 1973 by the Nebraska State Legislature to give added emphasis to agriculture and the management of natural resources in Nebraska) serves the people of Nebraska in the four-fold mission of teaching, research, extension and service. Commonly referred to as "IANR," the Institute is administered by the Vice Chancellor for Agriculture and Natural Resources and has faculty and staff located throughout the State. IANR faculty and staff have appointments in the following divisions: Agricultural Research Division, College of Agricultural Sciences and Natural Resources, College of Education and Human Sciences (research and extension), and Cooperative Extension Division. Each division is administered by a Dean or Director. The Institute is comprised of 15 academic units, four regional research and extension centers, several interdisciplinary centers and program units. The IANR Vice Chancellor holds the Vice President title in the University of Nebraska system and is also administratively responsible for the Nebraska College of Technical Agriculture at Curtis. Visit the IANR web site at www.ianr.unl.edu.

LINCOLN, NEBRASKA, "THE STAR CITY" – A PLACE TO WORK AND ENJOY LIFE

Lincoln, Nebraska, a community of more than 250,000 people, offers the ambience of a friendly small town while offering attractions and entertainment opportunities of a metropolitan area. Lincoln is a young city with a bright future of planned growth and expansion. It is one of the fastest growing non-Sun Belt cities in the U.S. and one of the fastest growing metro areas in the Midwest.

The capital city of Nebraska, Lincoln is home to state government and the flagship campus of the University of Nebraska system. The city also hosts Nebraska Wesleyan University, Union College, Southeast Community College, Doane College-Lincoln and the Hamilton College-Lincoln Campus. Lincoln has an excellent educational system and ranks in the top 20 least stressful cities in the nation for children. Residents enjoy nationally ranked sporting events, world famous performing arts, and a variety of cultural activities. Among the attractions: the 2,200-seat Lied Center for Performing Arts, the Sheldon Memorial Art Gallery and Sculpture Garden, four history museums, a planetarium, observatory, many private art galleries, four live-stage theater venues, a civic auditorium, the 82,000 seat Memorial Stadium, 14,400 seat Devaney Center and new baseball/softball stadium facilities.

Cost-of-living ranks 3 to 5 percent below the national average of comparable cities with among the nation's lowest health care costs, utility bills and insurance rates. Lincoln's low crime rate, efficient transportation, stable business environment and advanced health care technology are a few reasons why Lincoln ranks high in livability studies.

You are invited to explore Lincoln on-line for the most current information.

www.unl.edu	University of Nebraska-Lincoln homepage
www.nebraska.edu	Web site for the University of Nebraska four-campus system
www.lped.com	The Lincoln Partnership for Economic Development offers extensive information on demographics, education, health care, cost of living and tax structures.
www.lcoc.com	The Lincoln Chamber of Commerce offers business and community information and a relocation directory.
www.lincoln.org	The Lincoln/Lancaster County Convention and Visitors Bureau offers information on attractions, entertainment, recreation, dining, shopping and transportation.
www.state.ne.us	The official web site of Nebraska State Government
www.ci.lincoln.ne.us	The official site of Lincoln City Government