



TALLGRASS PRAIRIE CENTER NEWS

UNIVERSITY OF NORTHERN IOWA

The Tallgrass Prairie Center restores native vegetation for the benefit of society and environment through research, education, and technology.

SPRING 2016



Tallgrass Prairie Center Plans for the Future

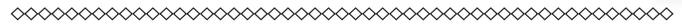
Kristine Nemec, IRVM Program Manager
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On February 22nd, 25 partners and friends of the Tallgrass Prairie Center from across the state participated in a strategic planning meeting at the Center. The goal of the meeting was to gain input about partner priorities, observations and concerns as the Center prepares a strategic plan for the next three years. Attendees identified strengths of the TPC to be expertise in prairie ecology, native plant materials, and prairie reconstruction; high quality students; the TPC's website and publications; applied research; and contributions to campus sustainability, with over 130 acres of prairie on campus. Efforts to work with the agricultural community through events such as Prairie on Farms field days and support for county roadside programs through the annual roadside conference and annual federal seed purchase were valued.

Challenges were also identified. With current concerns about climate change, nutrient pollution, decline in soil and water quality, and biodiversity loss, there is tremendous demand for the TPC's work. The Center will need to determine how to best leverage its efforts to have the most impact and prioritize which areas of funding to pursue. Partners lent their varied expertise to suggest specific environmental trends and funding sources related to water quality, pollinators, changing farm demographics and valuation, and new native plant materials that will be very helpful for the Center's strategic planning efforts.

Moving forward, the TPC will continue to develop and maintain strong relationships with its partners. There will be some focus on uncovering more opportunities to partner with other regional learning centers, with agencies, and with community organizations. Several opportunities surfaced at the meeting. The Center will make

a concerted effort to sustain and enhance UNI student engagement, and will continue to seek support for applied prairie reconstruction research that makes the most of limited resources, focusing on high need, targeted research. The Center's primary focus and mission will not change. The Center will remain the "go-to" place for information and expertise about tallgrass prairie and its impact on such critical societal challenges such as water quality, nutrient management, soil health, and habitat for pollinators and wildlife.



Prairie On Farms Working Group Meeting

Ashley Kittle, Prairie On Farms Program Manager
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The Prairie on Farms project held its first Working Group meeting at the Center on April 21st. The goal of the meeting was to network with other professionals who value conservation practices for water quality and pollinator habitat purposes. The working group discussed ways to strengthen conservation resource efforts that are facing the state and gained familiarity with the newly launched Iowa Prairie Seed Calculator. The seed calculator can be found on the Tallgrass Prairie Center website and is a free tool that recommends a custom seed mix and seeding rates of grasses, sedges, legumes and other forbs specifically for your planting site. Users may add or subtract species to further customize the mix. The calculator generates a bid sheet that can be sent to vendors to get the best prices. Participants were shown step by step how to use the calculator. A youtube video of this tutorial will be placed on the Tallgrass Prairie Center website in the near future for those interested in learning more about the calculator.



In addition to learning about the Iowa Prairie Seed Calculator, attendees shared thoughtful insights and reflections on what challenges and opportunities they see in their own jobs. These reflections led to meaningful conversations which identified areas of overlap and ways we can work together for wildlife, pollinator and water quality

conservation efforts. We plan to hold another working group meeting in the winter of 2017 to continue these conversations.

If you are a professional in the conservation, wildlife, pollinator, water quality improvement or technical services provider field and are interested in learning more about future working group meetings please email ashley.kittle@uni.edu.



The New Chapter of Biomass Energy Work at the Tallgrass Prairie Center
Eric Giddens, Prairie Energy Coordinator
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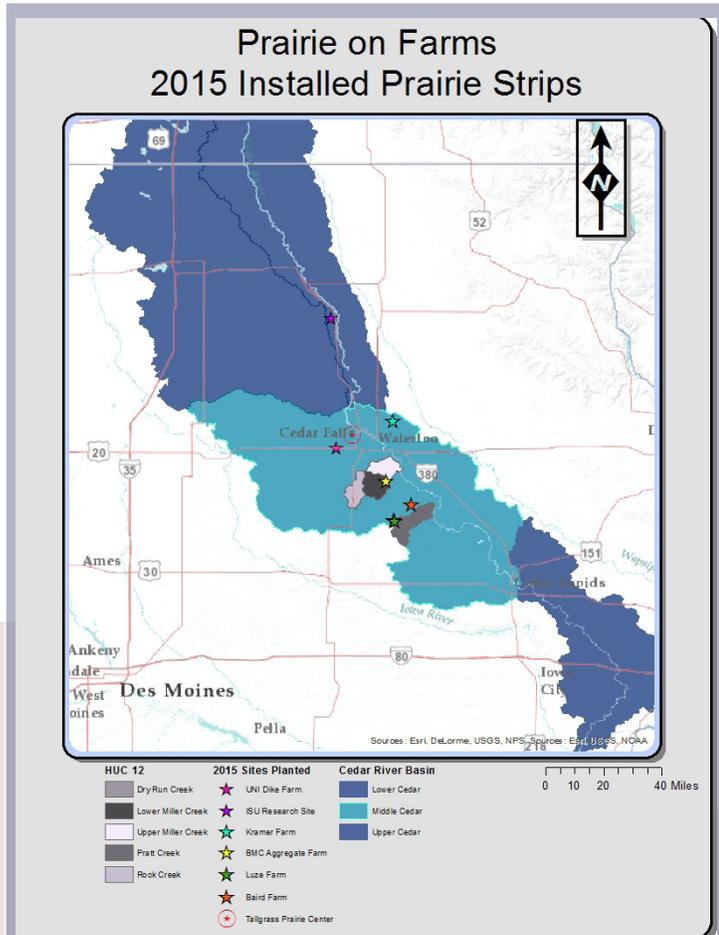
As the Tallgrass Prairie Center's seven year-long Prairie Power Project came to a close in the fall of 2015, the TPC wrote and received a two-year grant from the Iowa Nutrient Research Center to explore the practical applications of harvested prairie vegetation as either a heating fuel or a feedstock for various bioproducts. One of the first steps in this effort was to join efforts with a group called the Midwest Conservation Biomass Alliance (MCBA). On January 27, 2016, Prairie Energy Program Manager Eric Giddens attended the annual meeting of the MCBA at the University of Missouri in Columbia, MO to forge new relationships with MCBA members around the Midwest who are doing work related to the concept of "conservation biomass."

The MCBA is an informal consortium of individuals from the private sector, public agencies, non-government organizations, and academia whose mission is to discover and promote ecologically sound commerce in native grassland biomass and land use practices that restore and enhance multiple benefits for people, land, water, and wildlife. The vision of the MCBA is of synergy between native grassland vegetation and renewable energy and bioproducts that leads to economically viable and ecologically sound use of working lands.



Pellets made from prairie harvested at the Cedar River Ecological Research Site that can be burned in biomass boilers to heat buildings.

The MCBA strives for sustainable working lands approaches and market-based solutions utilizing native grassland biomass. Biomass-based commerce, when carefully planned and managed, is a potential solution for meeting societal, economic and conservation needs. Native grassland biomass can simultaneously deliver renewable energy, bioproducts, high-quality habitat, soil and water conservation, sequestration of carbon and nutrients, improved water quality, connectivity of protected lands, and farmer income. Therefore, MCBA seeks to encourage and support commerce that produces, harvests, transports, processes and markets biomass of native grassland plant species in sustainable ways. Stay tuned for more news from the TPC's new biomass project! **For more information about this work, email Eric Giddens at eric.giddens@uni.edu.**



2015 was a very successful first year for the Prairie on Farms project. We provided four demonstration field days for land managers, technical services providers and producers; one Plant ID workshop; one Prescribed Fire workshop; launched the Iowa Prairie Seed Calculator; and planted diverse prairie strips on seven different agricultural farms in the Cedar River Watershed (please see adjacent map). We are excited to continue this momentum into 2016. If you would like to learn more about planting prairie on your agricultural field or to be invited to our fall demonstration field days please email ashley.kittle@uni.edu.

www.plantiowanative.com

Plant Iowa Native **BRING BACK THE NATIVES**

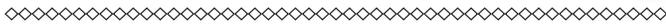
University of Northern Iowa
 education landowner incentives restoring the native plant community landscape and gardening services visit plantiowanative.com

Staffing Transitions

Long time Tallgrass Prairie Center employee Dave Williams has moved on to pursue new opportunities. Dave was responsible for planting most of the prairies on the UNI campus and many in the Waterloo-Cedar Falls community as well. Recent accomplishments include an ingenious new on-line seed mix calculator, and a new book, *The Prairie in Seed*, available from University of Iowa Press (see page 4). We are grateful to Dave for his many years of service, and wish him the best.



We are currently searching for a new Research and Restoration Program Manager and hope to be able to introduce him or her in the next newsletter.

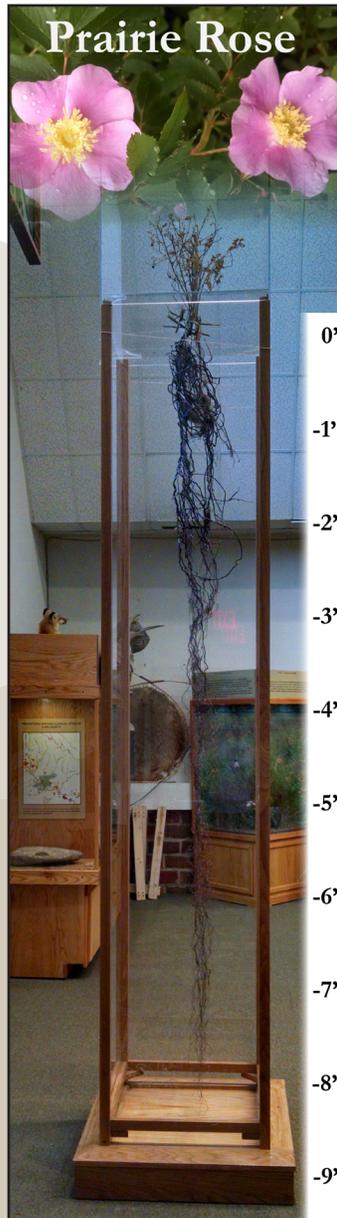


Prairie Roots Project -

The Prairie Roots Project [<http://www.tallgrassprairiecenter.org/prairie-roots-project>] has produced a total of 24 roots for nature centers and museums in Iowa. Six roots were distributed in 2015, one each to Neal Smith Wildlife Refuge, Des Moines County Historical Society, Muscatine County Environmental Learning Center, Ringgold County Conservation Board, and this prairie rose to Indian Creek Nature Center. Below is an excerpt from Jean Wiedenheft, Stewardship Director at Indian Creek Nature Center:

The prairie rose root, on display in our existing auditorium, was the centerpiece of an adult education program today. This was the first program we have used it in, and the conversation that ensued was what I wish happened at every program we offer. It allowed us to talk about how plants grow, and the research and resources the Tallgrass Prairie Center offers. A number of the visitors involved came because they care about prairie. Even those who are familiar with the wild rose as a plant were astounded by the depth and structure of the root, and it really helped them understand and engage with how the prairie provides such a tremendous ecological value.

Read more about the root at: <https://pocketmousepublishing.com/2016/04/04/the-root-of-the-rose/>



Iowa's Prairie Road 'Seeds'



IRVM county annual roadside seed pickup was April 13 and 14 at the Tallgrass Prairie Center. This year enough native seed to plant 1,270 acres of county roadsides was distributed. <http://www.tallgrassprairiecenter.org/irvm/transportation-alternatives-seed>

2016 Restoration and Management Seminar Series Staci Mueller, Marketing and Outreach Coordinator - staci.mueller@uni.edu

The 2016 Restoration and Management Seminar Series concluded on April 7 with a talk by **Dr. Susan Galatowitsch**, professor and head of the department of Fisheries, Wildlife and Conservation Biology at the University of Minnesota. Her talk, titled "Making Ecological Restoration More Effective: Ideas from the Midwest and Around the World," discussed strategies used to reverse human impacts to landscapes, ecosystems and species.

Other speakers for the 2016 Restoration and Management series included **Keith Schilling**, Research Engineer with the Iowa Geological Survey at the University of Iowa, speaking on hydrologic recovery with prairie reconstruction at Neal Smith National Wildlife Refuge; **Ryan Dermody**, Soil Scientist at NRCS-Waverly Soil Survey Office, discussing soil biology and its effect on the health and function of soil; and **Jessica Riebkes**, UNI Graduate



Dr. Galatowitsch, professor and dept. head of Fisheries, Wildlife and Conservation Biology, U of MN.



Assistant sharing her research on the effects of predator satiation on seed predation on new roadside plantings.

Video of Dr. Galatowitsch's presentation, along with other select seminar presentations, are available at <http://tallgrassprairiecenter.org/natural-areas-and-ecological-management-seminars>

The Prairie in Seed - NEW PUBLICATION!

by Dave Williams

(140 pages, 220 color photos, 69 line drawings, 3 tables, 6 x 9 inches, available now from University of Iowa Press, <http://www.uiowapress.org/books/2010-fall/prairie-seed.htm>)

“Many can identify prairie wildflowers in bloom, but not as readily in fruit or seed. This field guide is a must for those desiring to become more familiar with prairie plants or collecting seed for prairie restorations or reconstructions.”—*Daryl D. Smith, coauthor, The Tallgrass Prairie Center Guide to Prairie Restoration in the Upper Midwest*

As interest in these wildflowers and grasses has grown, so has demand for better resources to identify the hundreds of species that make up the native prairie. In *The Prairie in Seed*, Dave Williams shows us how to identify wildflowers when they are out of bloom and, in particular, how to harvest their seeds. Without the flower color and shape as guides, it can be difficult to identify prairie plants. Imagine trying to distinguish between a simple prairie sunflower and an ox-eye sunflower with no flowers to look at!

In this richly illustrated guide, Williams offers dormant plant identification information, seed descriptions, and advice on seed harvesting and cleaning for seventy-three of the most common wildflowers found in the tallgrass prairie. He includes photographs and descriptions of the plants in bloom and in seed to assist in finding them when you are ready to harvest. Each species description explains where the seeds are located on the plant, when seed ripening begins, and how many seeds each species produces, along with a photograph and approximate measurements of the actual seed. Finally, this guide provides assistance on how and when to hand-harvest seeds for each species, as well as some simple tips on seed cleaning.



The author/photographer at work in Cedar Hills Sand Prairie State Preserve.

An indispensable guide for anyone involved in prairie restoration or conservation, this book is the perfect complement to Williams's *The Tallgrass Prairie Center Guide to Seed and Seedling Identification in the Upper Midwest*.



Student Profiles

Laura Anderson, Biology



Laura is a new lab/field assistant at the Tallgrass Prairie Center. She recently changed her focus toward environmental biology and has an interest in conservation of species as well as habitats overall. In the short few months Laura has worked at the center, she has learned quite a bit about effective sowing techniques, seed cleaning, transplanting and identification of seed species. She looks forward to learning even more about prairie restoration during her work this summer.

Kaleb Olson, Biology



Kaleb is a new lab/field assistant at the Tallgrass Prairie Center. He is pursuing his undergraduate education in biology with an emphasis in Pre-Chiropractic. Kaleb will be the President of the Pre-Chiropractic Club at UNI for the upcoming 2016/2017 academic year. He is also a member of the UNI Varsity Men's Glee Club. When asked about why he applied to the Tallgrass Prairie Center he said this, “I grew up in rural Iowa working for Pioneer and for a farmer. I've always had a passion for the outdoors and have never been afraid to get my hands dirty and work hard. I believe that the Tallgrass Prairie Center will be able to fulfill my desire to remain working in the outdoors as well as teach me about Iowa's prairie vegetation that I find so interesting.”

SAVE THE DATES!

- Seed Sourcing for Restoration in a Changing Climate, June 13 Janet Meakin Poor Symposium, Chicago Botanic Garden, https://www.chicagobotanic.org/education/professional_programs/seed_sourcing_restoration_changing_climate
- Sedge Meadow Restoration Workshop, June 17, Ames, IA. email: Dr. Arnold van der Valk at valk@iastate.edu
- Quad Cities Pollinators Conference, June 23 - 24. Nahant Marsh Education Center, Davenport, IA. <http://nahantmarsh.org/qcpollinatorconference/>
- North American Prairie Conference, July 17-20, 2016 'From Cemetery Prairies to National Tallgrass Prairies'. Illinois State University, Normal, IL, <http://nap2016.illinoisstate.edu>
- Prairie Heritage Week, September 11-17, <http://www.iowaprairienetwork.org/about/calendar.html>
- Prairie on Farms field days: Dysart September 14; Nashua September 16. email ashley.kittle@uni.edu for more information.
- 2016 Annual IRVM Roadside Conference, September 22-23, Council Bluffs, IA.



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<https://www.facebook.com/tallgrassprairiecenter>

Tallgrass Prairie
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NEWSLETTER

This newsletter is published electronically twice per year. For subscription information or questions, contact the editor: gregory.houseal@uni.edu

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