

Progress Report

Veterinary Medicine Campus Prairie Project

For Submission To:

Student Sustainability Committee
University of Illinois at Urbana-Champaign

Attention: Corrin Behm

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Progress Report Period: May 2009 to December 2009

Summary

On the first weekend in June 2009 over 100 community volunteers of all ages and backgrounds planted nearly 7,000 seedlings on the campus of the College of Veterinary Medicine. They created a 10,000 square-foot prairie garden with more than 50 species of forbs and grasses, native to Illinois. The new prairie planting covers 2 lots that are separated by sidewalks and a circular driveway directly in front of the Veterinary Basic Sciences Building on South Lincoln Avenue. The largest portion of prairie now provides a perfect setting for the public sculpture by Chicago sculptor, Richard Hunt, titled “Growing in Illinois”. This project was largely funded by a \$21,700 grant from the Student Sustainability Committee.

This year rainfall was abundant, the seedlings were highly successful, and many of the forbs flowered and were visited by native bees and butterflies. Positive comments were heard from students, college visitors and members of the community. Of the original SSC grant, \$14,021 has been spent to date. An additional portion of the grant will be needed in the spring of 2010 in order to complete the project. This will include the purchase of an additional 2000 seedlings needed to fill the remaining planned garden area.

Process and Progress

Over the course of several meetings in late winter and early spring of 2009 final plans were made for project implementation—set dates, calculate quantities of plants and mulch, place orders, recruit volunteers, advertise event, gather tools, etc.

In May, after defining boundaries for the planting sites, a local contractor (Atlantic Services) was hired to kill the existing lawn. Two applications of a broad-spectrum herbicide (glyphosate) were applied.

On May 30, wood mulch was delivered from the Landscape Recycling Center of Urbana. The mulch was used to help control unwanted plants and retain ground moisture. Twenty volunteers spread 12 large truckloads (90 cubic yards) of wood mulch over the planting sites. A water meter and hose spigot were installed onto a nearby hydrant to facilitate watering. However, because of above average rainfalls very little watering was necessary.



On June 5, *JF New*, a native plant nursery in Northern Indiana, delivered 6,475 plant seedlings. In addition, two local sources, University of Illinois Horticulture 441 class and Grand Prairie Friends (GPF), a local not-for-profit conservation group, also provided seedlings.

Planting day was Saturday, June 6. Calls for volunteers had been circulated by email, newspapers (*The News Gazette* and *Inside Illinois*), printed flyers and some radio time on Rob Kanter's *Environmental Almanac*. Volunteers gathered at 8:00 AM to be organized in teams and start planting. Over 100 volunteers participated in some capacity over the course of the day. University students, staff, and faculty along with many people of all ages from the local community helped drill holes and plant seedlings. Grand Prairie Friends, Red Bison (a student group), and participants in the Master Naturalist and Master Gardener programs also provided significant numbers of volunteers. Volunteer leaders, Jamie Ellis and Bill Handel, botanists from the Illinois Natural History Survey, were instrumental in organizing the volunteers and overseeing the planting plan.



Teams of two or three people moved around the site with drill-mounted augers, making evenly spaced holes. A team of about ten volunteers coordinated and moved plants from the overnight storage to their planned location in the garden. The remainder of volunteers planted the seedlings in the pre-drilled holes according to the planting map designed by Jamie Ellis. It took a long day of concerted effort from a core of all-day volunteers and a steady stream of fresh volunteers to get nearly 7,000 plants in the ground and watered.



Additional contributions for this event included lunch sandwiches purchased by the College of Veterinary Medicine, drinks provided by volunteers, and tents provided by Jimmy Johns and the Illinois Natural History Survey. Aside from the sore muscles, everyone had a fun day of physical labor. With donations collected from the volunteers (\$360) a local bluegrass band was hired to perform at the end of the day and celebrate the completion of planting. All enjoyed listening to some traditional music while overlooking their accomplishment.

Accomplishments and Challenges

In anticipation of normal, seasonal dry periods, Atlantic Services installed a temporary sprinkler system, at a cost of \$300 (materials only, pvc pipes and pop-up sprinklers). Without the sprinkler system, it took one person nearly 4 hours to water the garden using a standard garden hose. The sprinkler system provided insurance for a high seedling survival rate. However, temperatures were unusually mild, rain fell at all the right times and the sprinkler system was rarely needed and has been removed.

Not only was this a great year for new seedlings but it was also a great year for weeds. Crabgrass was the biggest challenge throughout the summer. Even though there was a layer of wood mulch over the entire garden, this barrier was broken everywhere plant holes were drilled. Crabgrass

emerged mostly in locations right next to new seedlings. Throughout the growing season volunteers from the College of Veterinary Medicine and the Illinois Natural History Survey maintained a weed control program but the crabgrass proved to be a challenge in such a large area. Grand Prairie Friends were instrumental in organizing volunteers to control weeds and GPF interns spent several days applying herbicide. Another large volunteer effort was also organized for a weed control day in August.

Most of the native seedlings seem well established, but there are a few areas that may have been overcome by weeds. Native prairie plants are perennial and will return next year from a strong root system, and over time, they will outcompete the crabgrass. Because this garden is located in such a prime location, directly in front of the Veterinary Medicine Basic Sciences Building, a maintenance and stewardship strategy needs to be developed until the prairie plants are fully established. One strategy being considered is to use a pre-emergent herbicide to stop the annual weeds and allow the prairie plants to develop. Towards this effort, we have begun discussions with the UIUC Student Chapter of the Wildlife Society and Red Bison. These two student groups have demonstrated interest in becoming active participants in the stewardship of the prairie garden. Their participation will require guidance and structure to ensure that their efforts remain focused and goal based, however this could be a model to increase and maintain student involvement in the project.

It was gratifying to see many of the seedlings flower during this first growing season. Native bumblebees and butterflies were observed, as well as monarch butterfly caterpillars on the *Asclepias tuberosa* (Orange Butterflyweed). This is only the beginning of the positive ecological changes that everyone will be able to witness at this very public site.

For several reasons this project has not been completed. The main plant vendor, *JF New*, back-ordered approximately 13% of the original order. Approximately 10% of the garden may have been lost to crabgrass. The extent of this loss will not be fully known until spring of 2010. A purchase of more plants in 2009 and an attempt at another volunteer effort this year was too much to take on. In order to maximize success of this project, we wanted to avoid planting in the heat of late August which might have stressed plants. Planting in late September, when the weather was cooler, might not have given enough time for the seedlings to establish roots to survive the winter. Also volunteers are more difficult to recruit at the beginning of the academic year.

Budget Status and Plans for 2010

2009 budget status:

Promotion materials and signage	\$1,008.00
Tools and materials	157.00
Sprinkler system and herbicide	500.00
Wood mulch	1,020.00
Prairie Plant Seedlings	11,336.00
Total 2009	\$14,021.00

Remaining funds carried over to 2010 \$7,679.00

In 2010, remaining funds will be used to purchase new plant seedlings, add a second layer of mulch, purchase a pre-emergent herbicide and purchase a permanent sign, which will also include a holder for educational brochures. An estimated 2000 to 3000 plant seedlings will be needed to fill the areas left unplanted (due to species being unavailable) and replace plants that did not survive. A second volunteer effort will be organized with a workday is tentatively planned in mid-May. An additional 5 truckloads of wood mulch will be purchased to re-define the perimeter of the garden and pathways. A permanent sign, which has been designed by a volunteer, will be purchased and installed. And an educational brochure will be designed and printed. Both the sign and the brochures will provide information about the Prairie Garden at Veterinary Medicine and acknowledge the grant money from the SSC, which made the native garden possible.

Budget to completion 2010:

2,300 seedlings (back-ordered or not available in 2009)	\$2,300.00
700 seedlings (replacements)	700.00
5 truckloads of mulch	450.00
Pre-emergent herbicide	200.00
Permanent cedar sign	2,500.00
Design and print educational brochures	~700.00
 Total 2010 (estimate)	 \$6,850.00

We will continue seek ways to involve student groups and provide leadership and educational tools to facilitate a student based stewardship program and a research program to evaluate changes in the vertebrate, invertebrate and plant community in the prairie garden.

There have been many lessons learned in this project. Next year we plan to apply a pre-emergent herbicide early as well as after planting seedlings, we plan to install the planting earlier in the year, and we will be better prepared to coordinate and lead a large cadre of volunteer labor.

All photographs by Gary Cziko.