

Proposal for a prairie planting on the University of Illinois Veterinary Medicine campus

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Background

Illinois is the Prairie State so-called because of the once biologically rich grassland that covered about 60% of our landscape. Today, because of agricultural and urban development, more than 99% of the original prairie is gone. Efforts to conserve our prairie heritage are active including protection of unplowed remnants, reconstruction of prairie through new plantings and creation of gardens using native prairie plants.

Vision and Scope of Work

Based on input from individuals within Veterinary Medicine, we propose to install a perennial garden consisting of plants characteristic of native tallgrass prairie in central Illinois. The area suggested for this planting is in front of the Basic Sciences Building and around the sculpture already in place. This created space is meant to educate, beautify and inspire. Also, by planting a fairly low maintenance garden, Vet Med will showcase their desire to be good stewards of the land. An additional area, the island of lawn bounded by the vehicle turnaround and drop-off area in front of the Basic Sciences Building will also be planted.

Plan of Work

A general site design has been created (Figure X). Plant species characteristics such as height, flowering time and flower color are taken into consideration with the site design. We propose to include about 45 to 50 plant species in the design (see Appendix). Site lines to the sculpture and across corners are also maintained.

Preparation of planting sites should start in early spring by killing the sod with a general glyphosate based herbicide such as RoundUp®. Two applications may be necessary to ensure a weed-free planting bed. When the existing vegetation is dead, a thin (1-2 inches) layer of shredded wood mulch should be spread over the entire planting area. This will help retain moisture and also help with any weeds that may sprout. Prairie plant seedlings should then be installed in late May or early June depending on weather conditions. Plants are installed at one and two foot spacing intervals to allow adequate room for future growth. Holes are created using small, drill mounted augers, and plants are then popped from the pot and plugged into the ground ensuring good root to soil contact. All plants should be thoroughly watered immediately following planting. Mulching and planting should take two to three days depending on this size and availability of a planting crew.

Based on plans from the Facilities and Services Planning Division, the proposed planting around the sculpture is approximately 7200 square feet. The island is about XX square feet. Roughly based on one-foot centers, we estimate that it will take about 25 cubic yards of mulch and about 7000 prairie plant seedlings. Mulch and number of seedlings are yet to be determined for the island area. Mulch can be purchased from the Landscape Recycling Center in Urbana if trucks can be secured to haul it to the site. Prairie plant seedlings can be purchased from a local not-for-profit group, Grand Prairie Friends, but a six-month advance notice is needed to facilitate

planning. The volume of plants needed might also warrant buying plants from a commercial vendor such as Spence Restoration Nursery in Muncie, IN.

Who will do the work—unspecified as yet.

Maintenance

Depending on weather conditions following planting, plants should be periodically watered during the first growing season to ensure survival. (who?) This might take 2-3 hours each week. Plantings should be inspected during the first growing season for unwanted weeds. Botanists from the Illinois Natural History Survey can make monthly inspections during the growing season. Weeds can be hand-pulled or spot-sprayed with herbicide depending on the level of infestation. (Who does the weed pulling?) Depending on weeds found, this may take 1-2 hours each week.

In early spring each year, dead plant material should be cut 2-3 inches above ground level and removed from the site to encourage new plant growth and promote a neat and maintained look to the prairie garden. This work should take one day each spring. Ideally, the garden should be burned once every two to three years in the early spring to promote growth of prairie plants, but this practice may be unfeasible due to the proximity of the site to air intake ducts on the Basic Sciences Building. During the second growing season, a top-dressing of mulch should be put down. Mulch should become unnecessary after this. (again, who does this work?)

A border of lawn grass should be maintained between the sidewalk bounding the area and the edge of the prairie garden. Facilities and Services currently mow the lawns and shall continue this task.

Education

We suggest that one or two sessions should be conducted to talk about the plants and the importance of native prairie. These can be organized for Vet Med faculty, staff and students or opened to the general public. Botanists from the Illinois Natural History Survey can teach these sessions. We also suggest that three to four small, educational signs be placed at the perimeter of the prairie garden to inform passersby about the project.

Budget (based on 7200 ft² planting around sculpture, will be more to add island, will be more if labor is contracted)

Herbicide application	\$150
Mulch (25 yd ³ @ \$15/yd ³)	\$375
Seedlings (7000 @ \$2/each)	\$14,000
Personnel/planning/labor (who?)	\$1,000
Total	\$15,525

APPENDIX

Suggested species groupings for Vet Med prairie planting:

Tall 1 (T1)

Silphium terebinthinaceum	prairie dock
Sorghastrum nutans	Indian grass

Tall 2 (T2)

Heliopsis helianthoides	false sunflower
Rudbeckia subtomentosa	brown-eyed Susan
Silphium integrifolium	rosin weed
Sorghastrum nutans	Indian grass

Tall 3 (T3)

Andropogon gerardii	big bluestem
Desmodium illinoense	Illinois tick trefoil
Lespedeza capitata	round-headed bushclover
Panicum virgatum	Switch grass
Ratibida pinnata	yellow coneflower
Silphium laciniatum	compass plant
Solidago rigida	stiff goldenrod

Medium 1 (M1)

Aster ericoides	heath aster
Baptisia alba	white wild indigo
Coreopsis palmata	prairie coreopsis
Echinacea pallida	pale purple coneflower
Liatris aspera	rough blazing star
Potentilla arguta	prairie cinquefoil
Pycnanthemum virginianum	common mountain mint
Schizachyrium scoparium	little bluestem
Veronicastrum virginicum	Culver's root
Zizia aurea	golden Alexanders

Medium 2 (M2)

Amorpha canescens	leadplant
Anemone cylindrica	thimbleweed
Asclepias sullivanti	Sullivant's milkweed
Eryngium yuccifolium	rattlesnake master
Parthenium integrifolium	wild quinine
Penstemon digitalis	beardtongue
Rudbeckia hirta	black eyed Susan
Scizachyrium scoparium	little bluestem
Silene regia	royal catchfly
Sporobolus heterolepis	prairie dropseed

Medium 3 (M3)

Ceanothus americanus	New Jersey tea
Liatris pycnostachya	blazing star

Monarda fistulosa
Scizachyrium scoparium
Sporobolus heterolepis

bee balm
little bluestem
prairie dropseed

Short 1 (S1)

Baptisia leucophea
Dalea purpurea
Dodecatheon meadii
Phlox pilosa
Sporobolus heterolepis

cream wild indigo
purple prairie clover
shooting star
prairie phlox
prairie dropseed

Short 2 (S2)

Asclepias tuberosa
Dalea purpurea
Heuchera richardsonii
Ruellia humilis
Sporobolus heterolepis
Tradescantia ohiensis

orange butterflyweed
Purple prairie clover
prairie alumroot
prairie petunia
prairie dropseed
Ohio spiderwort

Short 3 (S3)

Bouteloua curtipendula
Gentiana andrewsii
Gentiana puberulenta
Lobelia spicata
Rosa carolina
Rudbeckia hirta
Sporobolus heterolepis
Zizia aurea

side-oats grama
bottle gentian
downy gentian
spiked lobelia
prairie rose
black-eyed Susan
prairie dropseed
golden Alexanders