

NEBRASKA

STATEWIDE



*Arboretum*



## How's It Growing?

Wednesdays 11:00am - Noon

- Hosted by
- Bob Henrickson, Nebraska Statewide Arboretum, Inc.
- Bertine Loop, Horticulture Instructor at Southeast Community College.
- 

“Dedicated to answering your growing questions”

# GARDENING WITH NATURE IN MIND



“Anywhere, U.S.A.”



Diverse Landscapes are  
Healthy Landscapes

Anyone with a garden can make a difference for wildlife, and that doesn't have to mean turning it into a wilderness!

Wildlife in gardens was generally seen as one of three kinds of problem - a pest, a disease or a weed

A gardener can work with nature to create a garden that is beautiful and full of life

# Does it Matter?

- Prairie gardens benefit wildlife that depends on grassland habitats. Prairie plants provide the food, shelter and nesting cover for songbirds, beneficial insects and other critters that conventional landscapes cannot



- Too often anytime we see an insect in the garden our first reaction is to squash it.
- Learn the basic benign insects that are an important part of the food web.

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- These insects become bird food!
- Most insects do no harm to landscape plants.



# Realize native plants become more than just landscape plants

- Most insect herbivores can only eat plants with which they share an evolutionary history. They cannot, or will not use them for food.
- Our native insects will not be able to survive on alien plant species.





Regal Fritillary

Many butterflies have highly specific host food sources. They ovaposition only on the particular plant that the caterpillar will eat!

Buckeye



# Working Insects of the Gardem

- Most insects do no harm to landscape plants.
- Many may feed on or are parasites to pest species
- Others pollinate flowers of native and crop plants that produce the seeds and fruits that we rely on.



- Relax. Work WITH Mother Nature.
- Mass trees and other landscape plants together and separate from turf.
- Think groundcover instead of turf cover.
- Strive for biological diversity – even in the lawn (put up with a few “weeds”).
- Try to reduce or eliminate use of pesticides – and be smarter with their use.

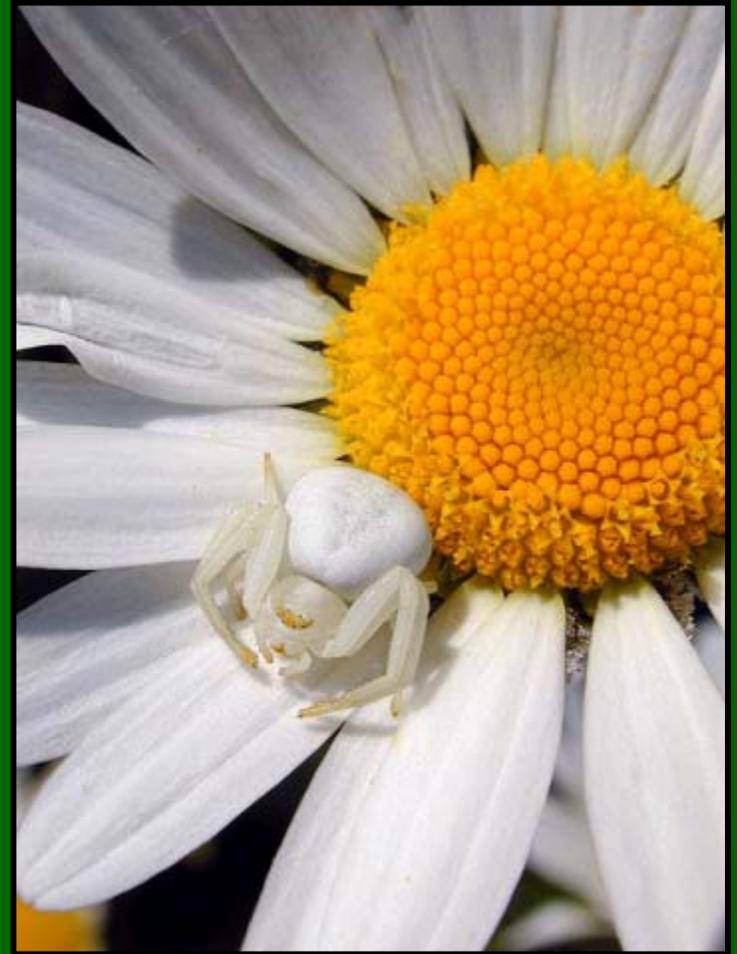


Painted Lady

“Until recently, there has always been a place for nature to thrive”  
Douglas Tallamy

- A large percentage of the world's fauna depends entirely on insects to access the energy stored in plants. (Wilson 1987)
- 96% of terrestrial bird species in NA rely on insects to feed their young.





- Can our wildlife survive unless food, shelter, and nest sites can be found in suburban habitats?
- Recognize the importance of suburban gardens for the preservation of wildlife!
- Our gardens can play a role in creating habitat by using a wide variety of plants
- We can no longer rely on local natural areas to supply food and shelter to the birds, mammals, reptiles and amphibians.



# What can we do about it?

- Learn a variety of prairie plants that are native to Nebraska and the Great Plains region!
- Visit local arboretums and parks that have demonstrations that feature prairie plants
- Encourage more demonstration plantings in public places, corporate campuses, educational institutions and national business chains.

# If Prairie Plants are so great, why aren't they used more?

- Many different types of prairie
- Mesic, Dry, Wet, Lowland, Upland, Tallgrass, Midgrass, Shortgrass, Savannah, Woodland, Rocky, Sandy....
- Gardeners aren't sure what a prairie plant is
- People don't ask for them at the nursery
- Why carry a plant people aren't demanding

# Is a prairie garden sustainable?

- If you continue to water after plants are established, the plants that survive will be those that require extra water, and you are stuck watering forever
- the plants that “belong” on your site, the ones that can live on rainfall, rotted because they got too wet or were outcompeted by more water tolerant ones.

- In the Great Plains, especially during a drought year, a watering every month or so may be necessary to keep your garden from going dormant. If you do not water, and your garden does go dormant, it is okay, nothing is likely to die!!



Kansas City  
Discovery  
Center  
Parking Lot  
Bioswale

[http://www.marc.org/Environment/Water/pdfs/bmp\\_manual/Adopting\\_BMP\\_how\\_why.pdf](http://www.marc.org/Environment/Water/pdfs/bmp_manual/Adopting_BMP_how_why.pdf)





Fireworks Restaurant & Ped. Trail - Lincoln



July 2011







NSA Display Gardens- UNL East Campus



National Park Service Regional Headquarters



Sallows Arboretum, Sunken Gardens- Alliance, NE

## Gilman Park Arboretum- Pierce





Millennium Park



Garfield Park Conservatory

# Keep it Simple?

- A reasonable approach for home gardeners is simply to use whatever prairie plants can be found
- A garden with a plethora of grasses will keep any aggressive wildflowers in check through competition
- A variety of grasses will work to hide the dormant stems of spring bloomers

# We grow good grass....

- There are short grasses and tall grasses, but also cool season and warm season
- In general all short grasses are very drought tolerant and require little if any supplemental irrigation
- Choose wildflowers that thrive under similar conditions
- Consider short-lived selections that reseed among grass clumps.

# Short Prairie Grasses



Blue Grama Grass,  
*Bouteloua gracilis*,





Sideoats Grama, *Bouteloua curtipendula*





Little Bluestem, *Schizachyrium scoparium*



Prairie Dropseed, *Sporobolus heterolepis*







Indiangrass, *Sorghastrum nutans*







Switchgrass, *Panicum virgatum*



'Shenandoah' Switchgrass



'Dallas Blues' Switchgrass



'Northwind' Switchgrass



Pasque Flower, *Pulsatilla patens*



Fremont's Clematis, *Clematis fremontii*



Shining Bluestar, *Amsonia illustris*



Prairie Phlox, *Phlox pilosa*



Dwarf Blue Indigo, *Baptisia minor*



Pale Purple Coneflower, *Echinacea pallida*



Narrowleaf Coneflower,  
*Echinacea angustifolia*







Missouri Primrose, *Oenothera missouriensis*



*Leadplant, Amorpha canescens*



Butterfly Milkweed, *Asclepias tuberosa*



Purple Poppy Mallow, *Callirhoe involucrata*





- Mountain Mint,  
*Pycnanthemum virginianum*



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Gray-Headed Coneflower, *Ratibida pinnata*

# Showy Black-Eyed Susan

*Rudbeckia fulgida var speciosa*







[www.prairiemoon.com](http://www.prairiemoon.com)

Smooth Aster,  
*Aster laevis*



Spike Gayfeather,  
*Liatris spicata*



# Nebraska Natives Woody Plants

# Species Type and Provenance are Important Factors



Many tree species meet the limit of their natural range in Nebraska—Dr. Robert Kaul

# Large Trees



State Champion Silver Maple, Beatrice



Black Cherry, *Prunus serotina*

*The genus Prunus is an excellent source of food for both vertebrate and invertebrate wildlife.*

*Black cherry will readily colonize open areas with seedlings. Trees grow quickly into full-sized forest trees*

*Try and tolerate tent caterpillars, even when they cycle in abundance.*

*Tent caterpillar adults are eaten by many bird species.*





- Common Hackberry, *Celtis occidentalis*



- McCook



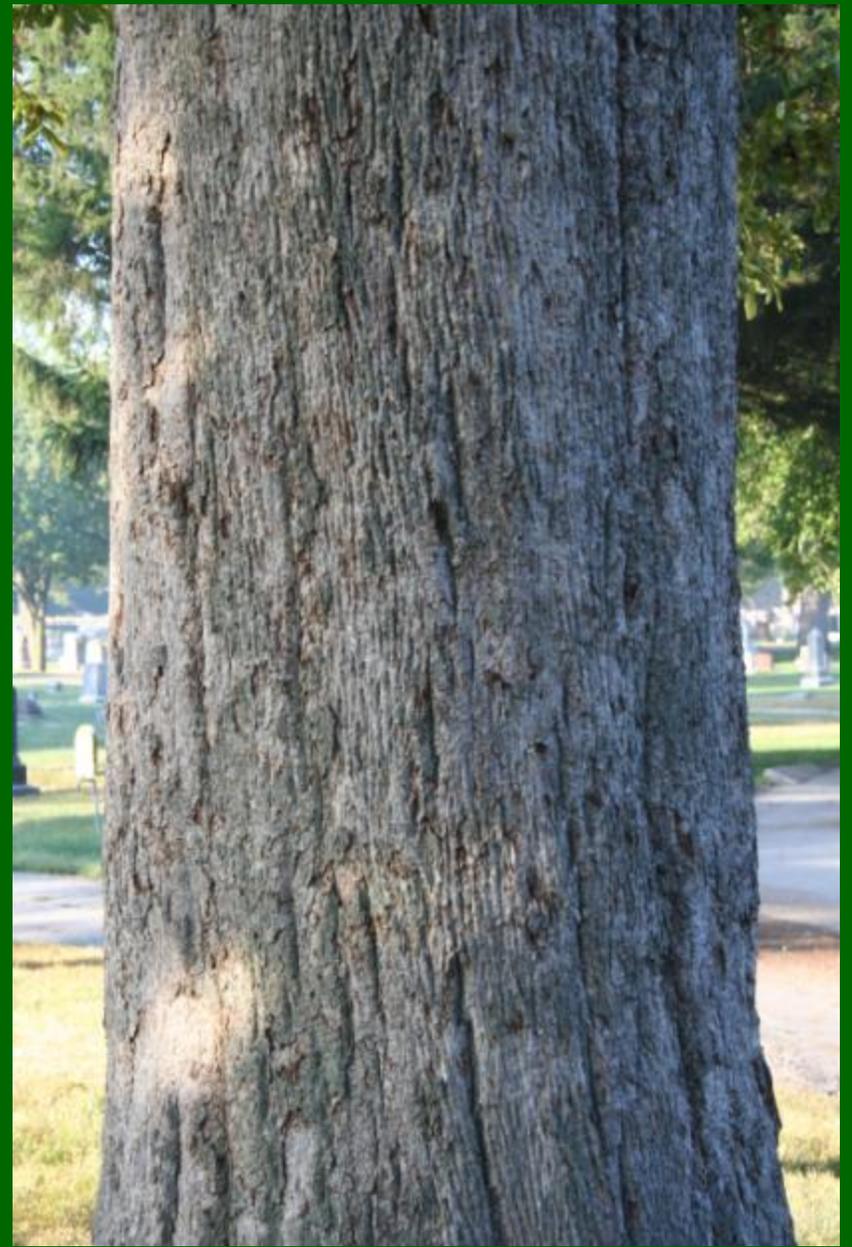
- North Platte



- State Champion!



**Bitternut Hickory,**  
*Carya cordiformis*



- 26<sup>th</sup> & O –Lincoln!

Nebraska only has 2 native Hickory species—  
bitternut and shagbark.

Eastern species such as shellbark and  
mockernut hickory are doing well in Lincoln  
and other areas of SE Nebraska.

Hickories host many beautiful moths and  
butterflies.

Obviously noted for the tough nuts that are  
important food source for mammals.



- Shagbark Hickory, *Carya ovata*





American Linden,  
*Tilia americana*

An excellent source of pollen and nectar for native pollinators.

The seeds are eaten by squirrels, chipmunks and other small mammals.

Often underappreciated as a shade tree because “it’s too messy”

Excellent food source for many caterpillars.

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- A noted nectar producing tree among honey beekeepers



- Visitors include bumble bees, metallic green sweat bees, flies and many wasp species

# OAKS—The quintessential wildlife plant



Bur Oak, *Quercus macrocarpa*





UNL East Campus

*Oaks provide valuable nut forage for a variety of vertebrate wildlife.*

*No other plant genus supports more species of Lepidoptera than the oak.*

*Oaks are noted for hosting myriad leaf miners, dagger moths, hairstreaks, inchworms and giant silk moths.*

*Other insects and wildlife use oaks for shelter and nesting sites.*

*Restoring large stands of oaks to suburbia would go along way toward shoring up the future of our nation's biodiversity*



- Black Walnut, *Juglans nigra*

Walnuts and butternuts are important trees for local wildlife.

Their foliage hosts a myriad of Lepidoptera species and the large nuts help sustain squirrels and other rodents.

Walnuts produce juglone, a chemical that can stunt growth or even kill other plants.

Most natives that evolved within the range of walnuts are unfazed by juglone!

Intermediate  
Trees  
For  
Part Shade



State Champion, Lincoln



- River Birch



- Paper Birch

*The native birches are excellent sources of food for wildlife.*

*Many species of moths and butterflies use birch as a food source.*

*The seeds and flower buds are important food sources for songbirds and small mammals.*

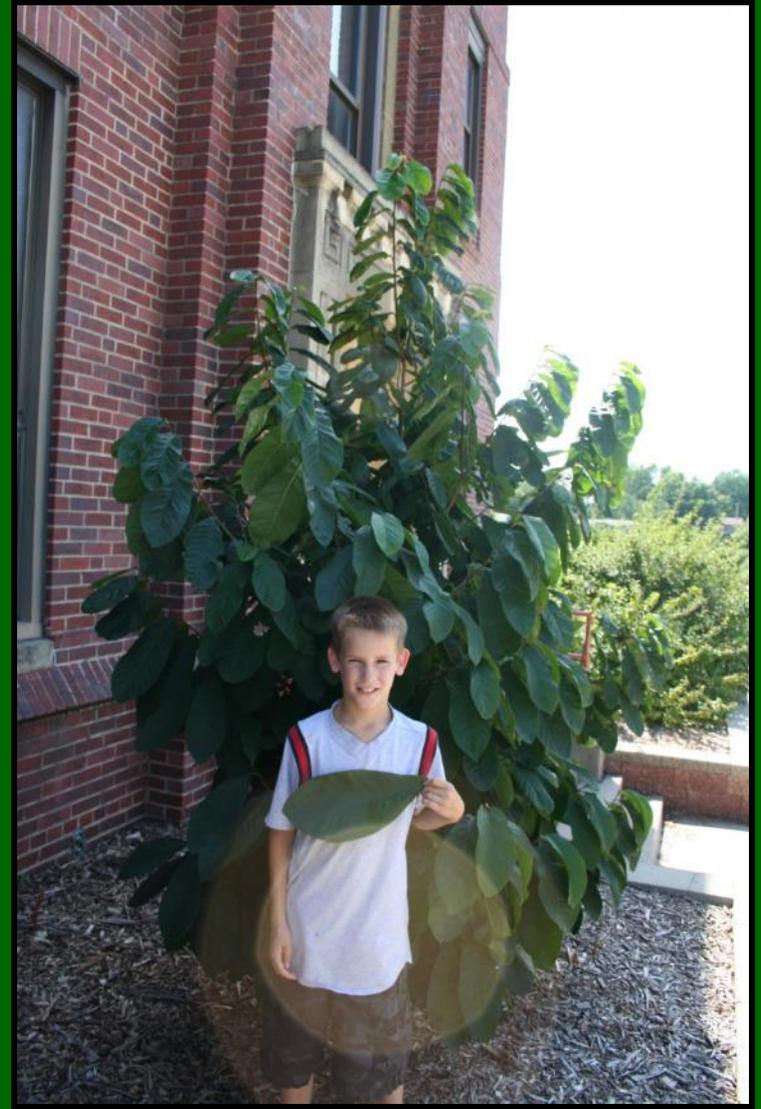
*Exfoliating bark provides nook and crannies for insects during winter.*







*Squirrels love Juneberries too!*



*Pawpaw, Asimina triloba*







American Persimmon, *Diospyros virginiana*

# Native Plant Sources

- Ion Exchange (seeds and plants), 1878 Old Mission Dr., Harpers Ferry, IA 52146-7533
- Missouri Wildflowers Nursery (native perennial seeds and plants), 9814 Pleasant Hill Road, Jefferson City, MO 65109, [mowldflrs@socket.net](mailto:mowldflrs@socket.net)
- Prairie Moon Nursery (native plants & seeds for wetland, prairie, savanna and woodland), Route 3, Box 163, Winona, MN 55987-9515, 507/452-1362, [pmnrsy@luminet.net](mailto:pmnrsy@luminet.net)
- Prairie Nursery (wildflowers and prairie plants), P.O. Box 306, Westfield, WI 53964, (800) 476-9453, [webcs@prairienursery.com](mailto:webcs@prairienursery.com)
- Stock Seed Farms (grasses and wildflowers), 28008 Mill Rd., Murdock, NE 68407-2350, (402) 867-3771, [stockseed@navix.net](mailto:stockseed@navix.net)
- Nebraska Statewide Arboretum, [arboretum.unl.edu/plant sales](http://arboretum.unl.edu/plant_sales)



...enriching lives through the beauty and wonder of plants.

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