

# GREAT PLANTS

2017 GREATPLANTS GARDENER

NEBRASKA STATEWIDE ARBORETUM

"Sustainable landscapes for healthy homes and communities"



# Meadow Blazing Star

Perennial of the Year Liatris ligulistylis

Height: 3-4 feet high Spread: 12-18 inches wide

Sun: full sun

Soil: prefers well-drained soil

Late summer's ultimate monarch butterfly magnet. Hummingbirds and other pollinators will also flock to this dramatic vertical plant. Abundant seeds draw goldfinches and other birds later in fall. Blossoms may cover more than half the long stems at one time and for several weeks late summer. Also great in fresh and dried arrangements.

# Plants with a Purpose

Christina Hoyt, NSA Executive Director Bob Henrickson, Horticulture Director

Over the last (almost) 40 years of work we have come to understand that landscapes have a dramatic impact on quality of life—they renew our environment, improve our health, increase social interactions, deepen our sense of place and provide opportunities for learning. Possibilities abound for purposeful beauty. And it is simply impossible to have a healthy landscape without a rich diversity of trees and plants. Our Horticulture Program continues to be a leader in the region, testing and introducing plants that will be useful and beautiful in themselves and also to the broader environment.

Winter is a time to pause and dream a bit about the coming season. What an incredibly hopeful cycle we get to experience in the plains—knowing that, after months of cold, the ground will thaw and new plant life will emerge. We hope you find the following pages inspiring, and maybe you'll find a new plant-friend to add to your landscape.

At the Nebraska Statewide Arboretum, we use winter to plan a full year of exciting programming. While you're thinking about your own landscapes, we're thinking about all the projects that will beautify communities statewide. While you're thinking about your personal plant list, we're trying to grow and offer the plants you'll be asking for. Our work hinges on strong partners and individuals like you who are committed to a more beautiful world.



Fireworks Restaurant in Lincoln, Nebraska was recognized as an accredited Arboretum in June 2016. NSA staff are shown with Reba Schafer of Telesis. Inc.

As we go forward, we hope we will see you in the coming year. We encourage you to become a member, attend an event, collect seed, organize a community planting and find ways to make your yard more ecologically friendly.

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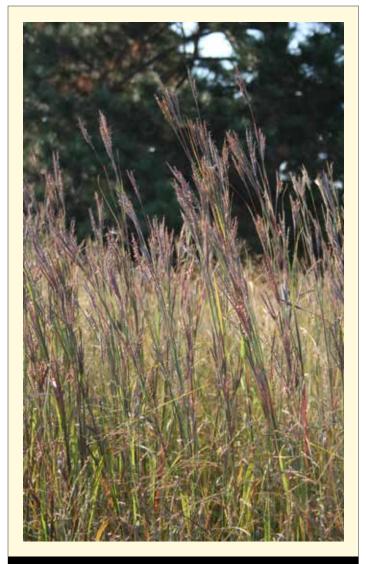
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# Big Bluestem

Grass of the Year *Andropogon gerardii* 

Height: 4-8 feet high Spread: 2-3 feet wide Sun: full sun

Soil: anything from sand to heavy clay

Once the iconic dominant grass of the tallgrass prairie but now rare, big bluestem can offer a strong sense of place in planted landscapes. This important native grass emerges blue green in spring, matures to green with red tinges in summer and turns coppery red with lavender highlights after frost. Its extensive root system makes it somewhat slow to establish, but once established it is drought-tolerant, very long-lived and easy to manage. It develops slowly in spring, giving other plants their "day in the sun." A good screen or hedge plant, its flowers are good additions to fresh and dried arrangements.



# Pawnee Buttes Western Sandcherry

Shrub of the Year

Prunus besseyi

Height: 12-18 inches high Spread: 4-6 feet wide Sun: full sun

Soil: prefers dry soil

This unique selection of sandcherry was discovered in Colorado's beautiful Pawnee Buttes, a stark but beautiful place with extreme weather and growing conditions. One of the hardiest deciduous shrubs, it offers a profusion of fragrant white flowers in late spring. The extremely glossy, silvery green foliage often turns a beautiful mahoganyred in fall. It prefers full sun and can be used in hot, dry areas. It adapts to almost any soil, and is rarely bothered by insects or diseases. The fruit is a sour cherry for pies and jellies, or left on the bush it will attract birds and wildlife.



# White Spruce

Evergreen of the Year *Picea glauca* 

Height: 40-60 feet high Spread: 10-20 feet wide

Sun: full sun

Soil: adaptable to a wide range of soils

One of the northernmost tree species in North America, white spruce has strong horizontal branches that open up with age. It prefers cold winters and cool summers but is extremely hardy. It is useful as a windbreak, hedge, screen or even cut or living Christmas tree. It offers winter shelter and foods for wildlife, including a wide variety of woodpeckers, pheasants and other birds.



### Shumard Oak

Tree of the Year Quercus shumardii

Height: 50-60 feet high Spread: 40-50 feet wide

Sun: prefers shade to part shade

Soil: adaptable

This strong, long-lived tree is native to eastern Kansas. New foliage emerges a reddish-purple, turns dark green in summer, then yellow to red in fall. In winter, the blue-gray bark with long, sinewy ridges stands out in the landscape. Beautiful catkins are a host and nectar plant for many butterflies and provide food for songbirds. Chestnut brown, striped nutlets ripen in fall, a food source for grouse, pheasants, bobwhite, turkey, foxes and squirrels.

# Strengthen Your Garden with Goldenrod

Bob Henrickson, Nebraska Statewide Arboretum Horticulture Director, plantnebraska.org/

As Nebraska celebrates its 150th anniversary in 2017, a new logo was unveiled for the sesquicentennial (will that word ever come easily?) featuring an art deco-inspired ear of corn. The corn is in reference to the Cornhusker state and the goldenrod-yellow color pays homage to our state flower.



Goldenrod was designated the official state flower of Nebraska in 1895 to "foster a feeling of pride in our state, and stimulate an interest in the history and traditions of the commonwealth." The state flower, they wrote, "has a long season, and nothing could better represent the hardy endurance of Nebraska's pioneers." The original legislation referred to it as *Solidago serotina*, a species now known as giant goldenrod (*Solidago gigantea*). In fact there are 11 species of goldenrod native to Nebraska (goldenrod is also the state flower of Kentucky and South Carolina).

The word *Solidago* is from a Latin word that means "to strengthen," in reference to the plant's medicinal qualities. Goldenrod has been a well-known medicinal herb for centuries, both in America and in Europe, and has been used to treat colds and the flu, sore throats and, surprisingly with all the misinformation, hay fever and allergies.

It had other uses too. Thomas Edison experimented with goldenrod to make

rubber, which it exudes naturally. In the 1930s he managed to get 12 percent rubber from the plants he grew; and Henry Ford gave Edison a Model T with tires made from goldenrod rubber. Edison eventually turned his research over to the government, which carried it on until synthetic rubber was discovered during World War II.

After the Boston Tea Party of 1773, the colonists had a good alternative—goldenrod tea, and not just any goldenrod, but sweet goldenrod, *Solidago odora*. It became known as "Liberty tea" and was even exported to China. Also called Blue Mountain Tea, it has been used by herbalists in the Appalachians to relieve exhaustion and fatigue. Modern herbalists say it's easy to make a nourishing tonic tea with goldenrod.

But not everyone thinks goldenrod is the best choice for our state flower. Some see it as a thug, a weedy plant that spreads aggressively, causes hay fever and doesn't represent the beauty of our state as well as a prairie rose or sunflower might. But what other wildflower better represents the landscapes all across Nebraska?

No one is, or even can be, allergic to goldenrod pollen. Why? It has virtually none. What little pollen it makes is too heavy to be airborne and it's sticky, all the better to attach itself to insects who will spread and pollinate it.

If you like pollinators and birds, goldenrod is one of the best plants to have. Research shows that plants in the *Solidago* genus serve as a host plant for at least 115 different species of butterflies and moths, more than any other perennial plant. Without host plants, butterflies and moths cannot reproduce, so if you want birds and butterflies, plant goldenrod. Goldenrod's late blossoms open during the migration of fall butterflies, including monarchs. The pollen and nectar in goldenrod also supports native bees and other pollinators, and songbirds eat the seeds in winter



Golden Fleece (opposite) and Fireworks Goldenrod.

As far as complaints about it being aggressive, that may be more in reference to more aggressive members of the *Solidago* genus like Canada goldenrod (*Solidago Canadensis*), a common roadside "weed" that spreads by aggressive rhizomes. While this behavior serves them well in the wild, it is not appreciated in the average garden. Canada goldenrod does not want to play nice with other plants—total garden domination is its only goal.

From a design perspective, the bright yellow blooms pair nicely with purple fall-blooming plants such as prairie grasses, native asters, Joe-Pye plant and gayfeathers. Fortunately, there are several well-behaved species and selections that make wonderful additions to gardens designed to support pollinators and birds or to provide beautiful fall color. If you're ready to consider using goldenrod, here are some that work well. Most goldenrods prefer six or more hours of sun and adequate moisture, though most of them are fairly drought-tolerant once established.

'Golden Fleece' goldenrod, Solidago sphacelata, is the most compact selection, with golden wands or sprays up to 2 feet high. The broadly

Goldenrod continued on next page





Wichita Mountains and stiff goldenrod.

#### Goldenrods continued from previous page

rounded basal foliage is very attractive and creates an effective groundcover when planted in mass. Its name refers to the "golden fleece of the gold-hair winged ram" in Greek mythology, a symbol of authority and kingship. It blooms from late August to late October. 'Fireworks' goldenrod. *Solidago* 

'Fireworks' goldenrod, Solidago rugosa, gets high ratings for its finetextured foliage and arching stems

- with masses of tiny yellow flower sprays that resemble an explosion of fireworks. This selection is a slow spreader that grows from 3-4 feet high and blooms mid-September to late October.
- 'Wichita Mountains' goldenrod is a durable, long-standing, attractive specimen with dense, golden rods up to 3 feet high in late summer (collected in southwest Oklahoma's Wichita Mountains).



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- Stiff goldenrod, *Solidago rigida*, is a clump-forming native growing 3-5 feet tall. It tends to stay upright and not run rampant. The gray green foliage contrasts nicely with its flat yellow flower clusters blooming late August to early October.
- Showy goldenrod, Solidago speciosa, makes elegant mid-sized clumps topped with 12-inch spires of bright golden yellow. It grows 2-3 feet high and is one of the most elegant of the goldenrods, yet remains difficult to find at garden centers.
- Zig-zag goldenrod, Solidago flexicaulis, is a slowly spreading shade lover that's not as showy as most goldenrods, but the late season color in dry shade is worth its weight in, well, gold.
- Riddell's goldenrod, *Solidago riddellii*, grows naturally in wet meadows, making it a perfect candidate for rain gardens or bio-swales. The tiny, bright yellow flowers form a flat-topped flower cluster atop stiff stems typically growing 3-4 feet high with attractive narrow, lance-shaped leaves.







From top: Showy, Riddell's and zig-zag goldenrod. (Note: A close look at most goldenrods, or even photos of them, will confirm its status as an important pollinator plant.)





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# Purposeful Plants and Landscapes

Bob Henrickson, Horticulture Program Coordinator

The Nebraska Statewide Arboretum is a thought and practice leader in the promotion and use of native plants—for their beauty, hardiness, sense of place and usefulness.

One of the most dramatic leads we've taken recently is using sedges to handle stormwater runoff. Failing to prepare for it is costly, can destroy existing plantings and can result in pollutants reaching important water sources.

NSA has been growing, promoting and installing native sedges for the wide variety of benefits they offer:

- Emerge early and reach maturity in one growing season
- Grass-like blades slow down and absorb moisture
- Fibrous root systems filter out contaminants
- Require little or no mowing or cutting back and don't need fertilizer, pesticides or herbicides
- Decaying foliage prevents erosion even in the off-season
- Dense above- and below-ground growth out-competes weeds
- Ideal for lowest zone of bioswales with extremes of wet-dry
- Remain low-growing for areas where visibility is important
- Discourage waterfowl and their droppings on pond edges
- Offer habitat for pollinators while resilient to browsing from

deer, rabbits and grasshoppers

There is so much untapped notential with native sedges. Imagine

There is so much untapped potential with native sedges. Imagine sedge meadow lawns planted under trees that require little or no mowing, fertilizing or chemicals and where falling leaves are left to enrich the soil.





"I learned about sedges through NSA.
We quickly put them in demonstration
rain gardens with the help of NSA.
They re really shined in some tough
locations, from bottoms with longstanding water to inflow areas with
fast moving water."
Katie Pekarek, UNL Extension Water

Katie Pekarek, UNI Extension Water Quality Educator

Green infrastructure practices are rapidly becoming commonplace in the Omaha area and thanks to NSA, we've been able to try out a variety of native sedges... that have proven to be tough and beautiful additions to the landscape. Now we regularly recommend and utilize them in green infrastructure projects and continue to explore new species with the help of NSA."

Andy Szatko, City of Omaha Environmental Quality Control



Kay Kottas, President, Prairie Legacy Inc. prairielegacyinc.com

Everyone loves the thrill of discovery. For me as a plant person, discovering the names and characteristics of native plants sparked a passion that is yet to be quenched. Seeing them in their natural habitat is as thrilling to me now as it was when I first realized what native meant. With less than 1 percent of our tallgrass prairie remaining, seeing some of the less common species in the wild is a thrill for any plant lover; and those first "sightings" remain important and long-remembered.

The first time I saw Plains wild indigo (Baptisia leucophaea), I was determined it should have been named spring bridal wreath. Those cascading creamy white blossoms are like a dazzling wedding bouquet in the middle of a just-emerging prairie. Since they are particularly vulnerable during spring grazing, they are most often found in cemeteries or hay land and are long-lived plants once established. They bloom in mid to late May and produce black pods in summer. New Jersey Tea (Ceanothus americanus), another early bloomer, is covered in fragrant white blossoms in June.

Butterfly milkweed (*Asclepias tuberosa*) stands out on the prairie as a bright orange beacon, a color rarely found in Nebraska plants. I am as thrilled to see

one in bloom as the bees and butterflies that hover around it. Nebraska is home to many different species of milkweeds, each with a unique color. These and other milkweeds require space to reseed. Although they will continue to bloom for many years, older plants eventually fail to set seed, so new seedlings are required to keep the population renewed.

At Prairie Legacy, we like finding and promoting plants that are suited for managed landscapes. We test them to see how they behave without competition from other native prairie plants. Hairy golden aster (*Heterotheca villosa*) is a diminutive plant native to dry spots in Nebraska's mid to shortgrass prairies. Given its own spot, this miniature mound of green surprised us with non-stop blooms all summer. Another tiny, single-stemmed plant which becomes a mound of abundant blooms in cultivation is the fall-blooming silky aster (*Aster sericeus*).

Everyone who visits our nursery asks about rattlesnake master (*Eryngium yuccifolium*). This unique native has proven itself easy-to-maintain and has not escaped its boundaries since it was first planted in 2012. It not only provides food for pollinators, but its hollow stems provide great places for native bees to make their homes.

Bringing Near continued on next page

It's no substitute for seeing them in the wild, but home landscapes bring native plants up close and personal.



Hairy golden aster.







Plains wild indigo; sweet everlasting; golden alexander.

Bringing Near continued from previous page

We like to add a silvery color to our landscapes and flower pots, and our prairies do the same. Silky prairie clover (*Dalea villosa*) is at home in the sandhills. It is not a plant you will find in most nurseries, but it thrives in planted landscapes, where it creates a mound of silvery foliage much thicker than in the harsh landscape it normally inhabits.

There are so many other beautiful natives: Culver's root (*Veronicastrum* 

virginicum); thickspike and other gayfeathers (*Liatris* species); my favorite goldenrod—showy goldenrod (*Solidago speciosa*); golden alexander (*Zizia aurea*); and Fremont's clematis (*Clematis fremontii*).

Prairie dropseed (*Sporobolus heterolepis*) is by far my favorite of the grasses. It is no surprise that it has found its way into many landscapes, where it enhances flower beds. It does have a distinct and unmistakable odor (yes, odor rather than fragrance) but its beauty makes up for it. For annuals, there is



# Native Plants for Native Pollinators

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Prairie consulting Prairie patches and Pollinator gardens Custom seed mixes sweet everlasting (*Pseudognaphalum obtusifolium*), which has the sweet homey fragrance of maple syrup. The dried stems and flowers keep their interesting look and fragrance for months.

Unfortunately, some of the most beautiful natives are difficult to propagate and establish in a landscape. But anyone who gets a chance to see them in their native habitat will not soon forget them. Though they may never make it to our home landscapes, they deserve to make our list of favorites. Among my favorites are prairie gentians, prairie orchids and blowout penstemon (*Penstemon haydenii*), Nebraska's Federally Endangered plant. An urban landscape is

an almost impossible place for most of these plants but they are worth the efforts of plant lovers everywhere to conserve them in the wild.

As thrilling as some of these plants are to see, the stories that go along with them are equally interesting. There are plants, for example, that change color when exposed to gamma radiation (spiderwort); plants poisonous enough to be used in darts (moonseed vine); and even plants that change sexual orientation (Jack-in-the-pulpit).

I invite you to take a step into the prairie, where the variety and complexity of plants draw you in and invite you to bring them near.





Fremont's clematis and rattlesnake master.



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# Ten Great Trees for the Great Plains







Nebraska State Champion pecan; Mongolian oak; Caddo maple.

Justin Evertson, Nebraska Forest Service Green Infrastructure Coordinator, nfs.unl.edu

At first glance, Nebraska and the surrounding Great Plains would seem to be a poor place to explore trees for a changing climate since trees just don't occur with great abundance here. But actually, our part of the world is a treemendous place to find trees that will likely be more adaptable to a warming and more wildly variable climate. The climate of the Plains has always been extreme and the older trees growing here, both planted and naturally occurring, have revealed a genetic capacity to tolerate harsh conditions. These survivors could be an important genetic resource for tree planting across much of the central U.S. in the coming decades.

The Nebraska Forest Service, in partnership with the Kansas Forest Service, is exploring and documenting the best Great Plains tree survivors through an initiative called Environmentally Adapted Trees (EAT). The ultimate goal of EAT is to raise awareness about the importance of tree species diversity in our planted landscapes and to help make a greater variety of proven species available for planting through commercial sources. There are at least 150 distinct species of trees that can be grown in our region and yet more than 70 percent of trees planted here come from fewer than ten types, few of which are native here. Here are just a few proven but underutilized species that deserve to be planted more.

#### Pecan Carva illinoiensis

Believe it or not, the pecan is North America's largest native agronomic crop. Corn, wheat and soybeans aren't native to our continent, but the pecan evolved here and we now harvest more than 265 million pounds of nuts annually. Though seldom considered for it, the pecan makes a great shade tree as it grows relatively fast and with a strong structure resistant to storm damage. Nut trees often get a bad rap for being messy, but the pecan is not. Its nuts are usually cleaned up by birds and squirrels before ever falling to

the ground. Many grand specimens of this tree exist in communities across eastern Nebraska, including one flanking a street in Kearney that has reached over 75' tall and 60' wide.

#### Bitternut Hickory Carya cordiformis

As hickories go, the bitternut is one of the easiest to grow in our area. A cousin of the pecan, the bitternut is distinguished by its smooth whitish young bark, its sulfur-yellow buds and its small rounded nuts that are unpalatable to all but the hungriest squirrels. A relatively fast grower, bitternut hickory will grow 50-70' tall and 40-50' wide in our area. Although it has good drought-tolerance in its native areas, it will likely require some supplemental moisture in the severe droughts of western Nebraska.

#### Mongolian oak Quercus mongolica

As its name implies, Mongolian oak is native to the Asian continent, but it looks to be right at home in our neck of the woods. Its leaves are reminiscent of swamp white oak and it tends to be a low-branching and a somewhat low-spreading tree with a very naturalistic look, similar to a large redbud. Growing 30-40' tall and wide, this isn't a tree to plan activities under, but it would make a great backdrop to just about any space.

#### Chinkapin Oak Quercus muehlenbergii

The chinkapin oak (sometimes chinquapin) is a fabulous native tree that should be planted until the cows come home. Growing naturally from Mexico to Canada, this oak with chestnut-like leaves is very drought-tolerant and is able to retain its deep green foliage even on high pH soils. Great specimens exist in communities across the state, including on very dry sites in the Panhandle. On favorable sites, the tree can be expected to grow 50-60' tall and 30-50' wide.

# Caddo Maple Acer saccharum 'Caddo'

The Caddo Maple is a distinct ecotype of sugar maple found growing in Caddo County of western Oklahoma. In Kansas trials, it has proven to be extremely heat and drought-tolerant, retaining its dark green foliage in hot summers and still turning a nice orange in the fall. It's recommended for planting in at least the southern half of the state and should be tried elsewhere for testing.

# Swiss Stone Pine Pinus cembra

This graceful evergreen with soft blue-green needles is reminiscent of white pine. We've been impressed with this tree's drought-tolerance and its adaptability to low-water sites in western



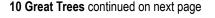
Nebraska. It's an upright tree, reaching 40-60' tall and 15-30' wide at maturity.

# Southwestern White Pine Pinus strobiformis

Native to the southwestern U.S., this five-needle pine has proven to be very heat- and drought-tolerant for much of Nebraska. It also seems to have good tolerance of the higher humidity of eastern Nebraska. It's darker green and more upright than its cousin the limber pine (*Pinus flexilis*), which is another great choice for western Nebraska. It will ultimately reach 40-50' tall and 25-30' wide.

# Black Cherry Prunus serotina

This is a relatively common forest tree of the eastern U.S. and is native to southeast Nebraska. In eastern Nebraska, it will survive with little care after establishment. Black cherry has multiseason interest including white spring flowers, glossy green leaves in summer, orange to red fall color and a maturing crackled-grey bark that takes on the appearance of burnt cornflakes. Black cherry is an important host to a wide variety of beneficial insects and birds and will grow relatively fast, reaching 40-50' tall and 20-30' wide with age.





Black cherry is one of the best woody plants for pollinators.



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#### David Elm Ulmus davidiana var. japonica

This elm is native across much of east Asia including China, Siberia and Japan. Unlike many elms, this species is relatively slow-growing and tends toward a low-rounded shape, rarely keeping a central leader. In our region, the tree will likely grow 30-40' tall and wide. It is noted for its cold-tolerance, having proven adaptable to northern Minnesota and North Dakota.

#### Tuliptree Liriodendron tulipifera

(below and opposite)

Although the closest native stands of tuliptree to Nebraska are more than 300 miles away in southeast Missouri, this ancient member of the magnolia family has proven quite adaptable to our region, with hundreds of large specimens



sprinkled throughout the eastern half of Nebraska. It is a strong upright grower reaching 50-70' tall and 30-40' wide. Although not the most drought-tolerant tree, tuliptree thrives on heat.

For a more comprehensive list of underutilized species for Nebraska, go to retreenebraska.org or plantnebraska.org.

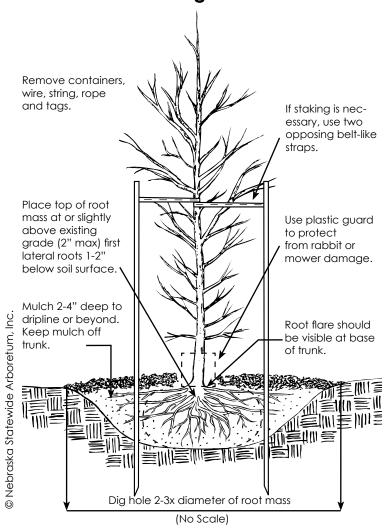


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Astrantia and bowman's root, like most plants (and people), prefer to live "in community."

# Perennials at the Edges



Bryan Kinghorn, President of Kinghorn Gardens, kinghorngardens.com

It is a pleasure to introduce you to a community of perennials that simply love being neighbors. In fact, they prefer hanging out together, colliding with one another in a very congenial manner and sharing similar site conditions.

Some of these plants may already be familiar to you while others could be making their first introduction, some are North American natives and a couple are introduced. As an aid, my perennial plant

Phil Pierce

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selection criteria has some "bandwidth" to it. I work from the perspective that we gain more benefits from the community of plants rather than limiting ourselves to only two categories of native or nonnative.

All of the following prefer semishade and supplemental moisture during establishment and in the hotter months. They also prefer a slightly higher organic matter profile if possible. In other words, this particular community of plants are happiest along a woodland edge and offer something to consider beyond some of the more familiar "go-to" selections. Let's unpack these perennial possibilities:

# Greater Masterwort Astrantia major 'Roma'

Astrantias may be a bit off the beaten path, but certainly worth consideration with their cottage-like elegance. A cousin of Queen Anne's lace (without the aggressiveness), they colonize by stolons in semi-shaded moist areas. The flower is defined as a compound, domed umbel

with a bloom period that can persist for at least 14 days. Roma grows about 2 and a half feet tall, producing deep, pink flowers surrounded by silver-pink bracts. It blooms from late spring into summer, takes a break from the high heat and often reblooms come autumn.

It certainly is far from being considered commonplace in American gardens, offering butterflies and pollinators a place of restful enjoyment as well. All of this followed by a rather refined architectural structure as winter arrives.

#### Bowman's Root Gillenia trifoliata

This is certainly an underused American native that enjoys slightly moist soils in part shade. It carries beautiful narrow foliage in clusters of three attached to slender red stems.

In June to mid-July white "butterfly like" flowers appear above the foliage, followed by persistent wine-colored sepals. In flower this perennial is around 30 inches tall and can encompass about 3 feet of space once mature.

Gillenia make for wonderful neighbors dotted across the plant community, providing visual continuity to the collective composition.

Perennials continued on next page



#### Perennials continued from previous page





Astrantia.

#### Great Blue Lobelia Lobelia siphilitica

Lobelias offer upright spires of punctuation within the 20-30 inch range. The blue flowers of this lobelia respond nicely to the bluish cast of the sesleria grass mentioned opposite.

Not generally considered to be a long-lived perennial, it can nonetheless self-seed in the right conditions, a characteristic that can bring a new design dimension to the overall community. Nature oftentimes delights us with surprising plant relocations. It is here that the editing eye of gardening comes into play—being able to discern the difference between a surprising enhancement and an unwelcome disruption. All of which can easily be kept track of with regular observation.

Blooming in mid to late summer, Lobelias introduce a texture unlike the other perennials within a companion planting.



#### Blue/Green Moor Grass Sesleria heufleriana

This is a smaller cool season grass for consideration. It grows to around 15 inches high, offering a helpful low profile that doesn't overwhelm. We tend to rely on a very minimal list of grasses within this low range, and *Sesleria* fills the gap with distinctive textural interest.

The grass flowers in early spring with creamy yellow pollen sacs held above the tufted foliage on slender stalks. The foliage itself is gray-blue on the surface and green underneath. It grows nicely in light shade, making for a wonderful transition or filler grass.

As a note of caution: prior to cutting this grass back in late winter/early spring, be certain to locate the plant's growing point. Remove the foliage above that point, preparing the grass for the onset of spring. *Sesleria* simply doesn't respond well if cut to the ground.

I hope your curiosity propels you to explore how this community of plants could be applied in the woodland edges of your own landscapes. Finding plants for all those transitional spaces (or edges) in our home landscapes is one of the greatest challenges for gardeners to discern and select plants for. All landscapes tend to have areas that transition—over the course of the growing season—from sun to shade, wet to dry, formalized to natural. But if these transitional spaces are recognized and given attention, they can function as wonderful thresholds into the spaces beyond them in a more beautiful and authentic manner.

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Tree-killing pests, like the emerald ash borer, hitchhike on firewood and spread insects and diseases that destroy our trees. Keep your backyard, campgrounds and favorite places safe from these pests.

#### **PREVENTION IS KEY:**

- Buy locally-harvested firewood.
- Ask a park ranger or campground host about where to get local firewood when you travel.
- If you brought firewood in from another area, BURN IT! Don't leave it, don't take it with you.



# BUY LOCAL, BURN LOCAL.

To report potential emerald ash borer, contact the Nebraska Department of Agriculture at 402-471-2351.

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# Celebrating Native Plants at Lauritzen Gardens



Jim Locklear, Director of Conservation at Lauritzen Gardens, lauritzengardens.org

An impressive sampling of the world's plant life and horticultural traditions can be seen and enjoyed at Omaha's Lauritzen Gardens. Seasonal displays in the Visitor Center feature chrysanthemums and poinsettias, iconic horticultural subjects that originally came to us from China and Mexico. Stroll through the Marjorie K. Daugherty Conservatory and you will encounter orchids, cycads, palms, ferns and other plants from tropical regions of the globe. Outdoors, the English Perennial Border, Japanese Garden and Victorian Garden depict the unique gardening traditions of different cultures and historical eras.

While these glimpses of the world's plant diversity are dazzling, Lauritzen Gardens is also committed to celebrating the botanical beauty and richness of our particular place on the planet. Visitors will find native plants used in many ways throughout the garden, sometimes in big splashes, sometimes in a more subtle manner.

Whether your site is a backyard or a 100-acre botanical garden, the first step in getting started with native plants is to look to the natural plant communities of your region. Two Midwestern plant communities serve as ecological touchstones for native plant horticulture at Lauritzen Gardens—eastern deciduous forest and tallgrass prairie.

The Lauritzen Gardens visitor center is nestled against a hillside crowned with a natural stand of oak-hickory woodland. A number of prominent old bur oak (Quercus macrocarpa) trees catch your eye along the crest. Follow the walking trail through the 10-acre woodland and you pass under red oak (Quercus rubra), shagbark hickory (Carya ovata), American linden (Tilia americana) and other canopy-forming trees. Growing in the understory are smaller trees and shrubs like ironwood (Ostrya virginiana) and bladdernut (Staphylea trifolia). The ground layer of the woodland is occupied by herbaceous plants like oak sedge (Carex albicans) and woodland phlox (Phlox divaricata).

The woodland is a vital remnant of the eastern deciduous forest that cloaked the hills along the Missouri River before Omaha became a settlement and then a city. The other major natural community back in those days was tallgrass prairie, which stretched from the river valley to the western horizon and beyond. This dominant species of this once-vast ecosystem are grasses like big bluestem (Andropogon gerardii), Indiangrass (Sorghastrum nutans) and little bluestem (Schizachryium scoparium) and a wealth of wildflowers like milkweeds, prairie clovers, coneflowers and goldenrods.

The use of native woodland and prairie plants at Lauritzen Gardens is most dramatically demonstrated in, of all places, our parking lot. Officially named the Dr. C. C. and Mabel L. Criss

Memorial Foundation Parking Garden, the award-winning design allows surface water to be collected and channeled through a series of plant-filled water features to reduce storm runoff and help clean and aerate the water. The parking area itself is divided into three tiers by strips of vegetation that feature bur oak and other native trees and shrubs planted in a matrix of prairie grasses and wildflowers. Planted areas within and around the Parking Garden not only help screen more than 600 vehicles from view, the combination of water, trees, grasses and wildflowers (including three species of milkweed) makes the area a hub of bird and butterfly activity. The extensive use of native plants in this area makes a strong Midwest sense-of-place statement the moment you arrive at Lauritzen Gardens!

Native plants are used in a variety of other settings in Lauritzen Gardens. Some of these are fairly large-scale plantings like the Song of the Lark Meadow located near the middle of the property. Named in honor of one of Willa Cather's famous prairie novels, this area is especially beautiful in the late summer when the grasses are at full stretch and beginning to take on their fall coloration. The aim of this planting is not to recreate a prairie but to capture the feel of the landscape that inspired Cather's writings.

In other places, native plants are woven into more traditional beds, borders

Native Plants continued on next page

Native Plants continued from previous page



Native plants in the Lauritzen Gardens Parking
Garden serve a wide range of purposes:
they reduce runoff;
aerate water in the ponds;
screen vehicles from the view;
attract birds and butterflies;
and provide beauty and interest
from the moment visitors arrive.
Below: Closeup of ironwood.

and landscaped areas. A couple of unique applications come to mind.

The first is the repeated use of prairie dropseed (*Sporobolus heterolepis*, shown on previous page) as a design element in the garden. A clump-forming native grass with fine-textured, arching leaves, prairie dropseed is on display around the circle drive in front of the visitor center and along walkways in the Garden of Memories and Kenefick Park. This hardy, elegant grass is a beautiful landscape

subject that also brings an essence of the prairie to these otherwise formal plantings.

The other involves purple poppy mallow (*Callirhoe involucrata*, also on previous page), a native wildflower that forms sprawling mats covered in early summer with wine-colored flowers. The plant makes a fine show trailing over a rock wall in the Festival Garden, but is also used as a groundcover under a striking specimen of emperor oak (*Quercus dentata*) growing in the Hitchcock-Kountze Victorian Garden. A native plant purist might not approve of pairing a wildflower from the Great Plains with a tree from Asia, but the effect is pleasing and even a bit whimsical!

The Victorian Garden portrays a style of horticulture practiced by the well-to-do in nineteenth-century England. One of the characteristics of Victorian-era gardens, in addition to very formal design, is that they were packed with plants from North America, including many of our woodland and prairie wildflowers. These plants were treasured, in part, because they were exotic objects from another continent. They were also esteemed for their beauty and hardiness. A couple of hundred years later, we here in America's Heartland have come to a greater appreciation of our native flora and are finding new and exciting ways to weave these plants into our own gardens and landscapes.





### 1999-2016 GreatPlants® of the Year

# Trees of the Year

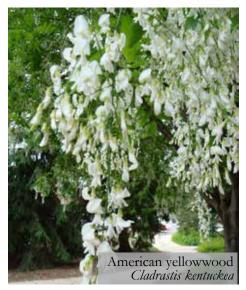
Acer truncatum, shantung maple
Aesculus glabra, Ohio buckeye
Amelanchier x grandiflora, serviceberry
Carpinus caroliniana, American hornbeam
Carya ovata, shagbark hickory
Cladrastis kentukea, American yellowwood
Cornus alternifolia and C. mas (pagoda
and corneliancherry dogwood)
Ginkgo biloba, ginkgo
Gymnocladus dioicus, Kentucky coffeetree
Liriodendron tulipifera, tuliptree
Ostrya virginiana, American hophornbeam
Platanus occidentalis, American sycamore
Quercus bicolor, Q. ellipsoidalis, Q.
macrocarpa, Q. muehlenbergii, Q.

Taxodium distichum, baldcypress

and black oak)

shumardii and Q. velutina (swamp white, Hill's, bur, chinkapin, shumard

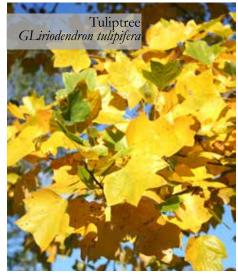












# Conifers

Abies balsamea var. phanerolepis, A. concolor and A. koreana (Canaan, concolor and Korean fir)

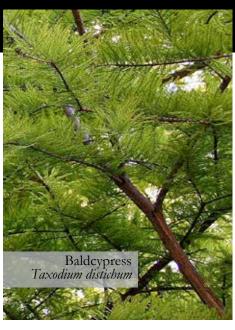
Laris kaerempferi, Japanese larch

*Picea glauca* and *P. omorika*, white and Serbian spruce

Pinus bungeana, P. cembra, P. ponderosa, P. resinosa and P. strobiformis (border, lacebark, Swiss stone, ponderosa and red pine)

Pseudotsuga menziesii var. glauca, Douglasfir





### Shrubs

Aesculus parvifolia, bottlebrush buckeye Amelanchier alnifolia 'Regent', serviceberry

Aronia melanocarpa, black chokeberry
Callicarpa dichomata, purple beautyberry
Ceanothus americanus, New Jersey tea
Cephalanthus occidentalis, buttonbush
Corylus americana, American hazelnut
Euonymus atropurpurea, eastern wahoo,
Heptacodium miconioides, seven-son
flower

Hydrangea quercifolia, oakleaf hydrangea Hypericum kalmianum, Kalm St. Johnswort

Mahonia repens, creeping mahonia

*Prunus besseyi* 'Pawnee Buttes', western sandcherry

Ribes odoratum, clove currant
Rosa glauca (R. rubrifolia), redleaf rose
Spiraea fritschiana, Korean spirea
Symphoricarpos x chenaultii, Chenault
coralberry

Viburnum carlesii, V. dentatum var. deamii, V. prunifolium and V. trilobum (Redwing American cranberrybush, Koreanspice, Deam's arrowwood and blackhaw viburnum)









### Crasses

Andropogon gerardii, big bluestem Bouteloua curtipendula and B. gracilis, sideoats and blue grama

Calamagrostis brachytricha, Korean feather reed grass

Carex grayi and C. muskingumensis, Gray's and palm sedge

Eragrostis trichodes, sand lovegrass Miscanthus sinensis v. purpurascens 'Autumn Red', miscanthus

Molinia caerulea ssp. arundinacea 'Sky Racer', purple moor grass

Panicum virgatum, 'Dallas Blues', 'Northwind'and 'Shenandoah' switchgrass

Schizachyrium scoparium 'Blue Heaven', little bluestem

Sorghastrum nutans, Indiangrass Sporobolus heterolepis and S. wrightii, prairie dropseed and giant sakaton





More on these plants at plantnebraska.org

## Perennials

Amorpha canescens, leadplant

Amsonia hubrichtii, narrowleaf bluestar

Anemone or Pulsatilla patens, pasque
flower

Asclepias tuberosa, butterfly milkwee
Baptisia minor, dwarf blue indigo
Chelone lyonii, turtlehead
Echinacea species, coneflower
Eupatorium maculatum 'Gateway', JoePye plant

Filipendula rubra 'Venusta', queen of the prairie

Geranium sanguineum, cranesbill Geum triflorum, prairie smoke

Liatris ligulistylis, meadow blazing star

Oenothera macrocarpa var. fremontii, Fremont's primrose

Penstemon species, beardtongue
Phlox divaricata and P. pilosa, woodland
and prairie phlox

Polygonatum multiflorum 'Variegatum', variegated Solomon's seal

Rudbeckia fulgida var. speciosa, showy black-eyed susan

Solidago rugosa 'Fireworks', goldenrod Thermopsis villosa, Carolina lupine

















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Andropogon 'Silver Sunrise'™, big
bluestem

Aster fendleri 'My Antonia'

Callirhoe alcaeoides 'Logan Calhoun', poppy mallow

Calylophus serrulatus 'Prairie Lode', sundrops

Caragana microphylla, Mongolian Silver Spires littleleaf peashrub

Clematis fremontii, C. fruticosa 'Mongolian Gold' and C. tenuiloba 'Pixie Parasols' (Fremont's, Mongolian Gold and Pixie Parasols clematis)

Dalea purpurea 'Stephanie', purple prairie clover

Dianthus 'Prairie Pink' and 'Wink'

Eupatorium 'Prairie Jewel'

Fallopia 'Lemon Lace', vine

Hibiscus moscheutos 'Pink Clouds'

Iris spuria 'Fontenelle' Spuria Iris

Juniperus virginiana 'Taylor', juniper

Liatris microcephala 'White Sprite' and L.

pycnostachya 'Eureka', gayfeather

Monarda 'Prairie Gypsy'

Oenothera macrocarpa 'Comanche Campfire', primrose

Penstemon grandiflorus 'Prairie Snow', 'War Axe' and 'Prairie Splendor'

Populus tremuloides 'Prairie Gold', quaking aspen

Quercus prinoides, dwarf chinkapin oak Scabiosa superba 'Mongolian Mist', pincushion flower

Scutellaria resinosa and S. scoridifolia 'Mongolian Skies', Smoky Hills and Mongolian Skies skullcap

Sedum tatarowinii 'Mongolian Stars', sedum

Solidago 'Wichita Mountains', goldenrod Tradescantia tharpii, dwarf spiderwort Viburnum 'Copper Ridges' and 'Prairie Classic'

















