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2014 Greatplants Gardener

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GREATPLANTS

2014 GREATPLANTS GARDENER

NEBRASKA STATEWIDE ARBORETUM

"Sustainable landscapes for healthy homes and communities"

Tuliptree

Liriodendron tulipifera

Height: 60-90 feet
Spread: 40-50 feet
Sun: full sun
Soil: prefers moist,
fertile soil

The blossoms on tuliptree are a beautiful yellow-green with an orange base, blooming from May into June.
They're followed by cone-shaped brownish fruits that persist into winter. Both the leaves and the flowers are large and tulip-shaped. It is not a good selection for hot, dry sites. The large leaves turn bright golden yellow in fall. Zone 4.







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Looking ahead for GreatPlants®

One of the goals of the GreatPlants program is to promote tough plants

for the landscape, plants that are more resilient in the extreme weather of the Great Plains. With so many plants to choose from, it can be overwhelming for gardeners to decide what to plant. We hope GreatPlants can be your guide to some staggeringly beautiful—and long-lived—plants.

GreatPlants is a joint effort of the Nebraska Statewide Arboretum and the Nebraska Nursery & Landscape Association designed to promote overlooked landscape plants and release exciting new plants. Since 1998 we have compiled a list of plant recommendations that offer multi-season beauty and long-term sustainability.

The 2014 Tree is the stately tuliptree; it has proven a great addition to landscapes in the eastern half of Nebraska. The beautiful Korean fir will appeal to gardeners seeking a compact evergreen for their landscapes. My favorite feature of this fir is the amazing purple cones on the tips of its branches; and my favorite attribute of beautyberry is the cascading or weeping effect of its cascading branches.

The new iris for 2014 was found by the late plantsman Harlan Hamernik at a farmstead near Fontanelle, Neb. The plant world lost one of its most knowledgeable and passionate members with the death of Hamernik, founder of Bluebird Nursery. He was always working to bring exciting new plants to our attention. We hope this iris and the dozens of other plant discoveries he made will serve as a living legacy to him.

Here at Nebraska Statewide Arboretum we're often asked what the trees of the future will be. To better cope with a changing climate we know we will need the hardiest of the species—which, as a rule, can be found at the farthest edge of their natural range. With that in mind, the GreatPlants program is working to release some native species that are hardy at the extreme edges of where they occur naturally.

We're working on promoting several trees with hardy provenance in coming years, including two birches. Paper birch (*Betula papyrifera*), often associated with the north woods, is considered by many to be one of the most beautiful forest trees. Its natural range extends south to the far northern edge of Nebraska, in the Niobrara River valley. The 'Niobrara' paper birch we're working with has white exfoliating bark, dark green foliage and golden-yellow fall color.

Another native species of birch, the western river birch (Betula occidentalis, opposite), typically grows along streams in canyons throughout the Rocky Mountains. We're working from a small native population in far northwestern Ne-



braska. It has attractive cherry-like bark, coarsely toothed leaves that turn yellow in fall, and grows to about 15-20 feet high as a large, multi-stemmed shrub. We think it will be an excellent land-scape addition. Keep watching for these exciting, hardy trees from Nebraska.

For information on purchasing future GreatPlants releases for trial, testing or trademark licensing agreements so you can propagate and sell these introductions, please contact me at rhenrickson1@unl.edu or 402-472-7855.

Bob Henrickson, GreatPlants Coordinator



Showy Black-eyed Susan

Perennial of the Year Rudbeckia fulgida var. speciosa

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

Soil: prefers dry, well-drained soil

This dependable, hardy perennial blooms abundantly. It's similar to 'Goldsturm' but tolerates drought better and is taller and longer-blooming. Very vibrant yellow flowers with dark centers also are long-lasting as cut flower. Though this is the hardiest of the *Rudbeckias*, this species is just starting to find its way into gardens.

It makes a bright display in late summer, with large orange to yellow flowers blooming well above a mound of dark green foliage. Easily grown in well-drained dry or medium soil in full sun, it tolerates hot, humid summers and some drought. Rudbeckia 'Viette's Little Suzy' is a compact, upright selection.



Gray's Sedge

Grass of the Year Carex grayi

Height: 2-4 feet high Spread: 1-2 feet wide

Sun: full sun to light shade Soil: prefers moist, fertile soil

Gray's sedge is a wonderful border plant for the edges of ponds or pools. This North American native sedge (sedges are grass-like plants, but technically not true grasses) forms an upright clump of fresh green leathery leaves that are often pleated. Pale green seedheads shoot up from the coarse textured clumps in mid-summer, providing textural contrast with the foliage. They're great for floral arrangements while still green and fresh, and later for dried flower arrangements. It will grow almost anywhere. Though it is great for moist rain gardens in full or part sun, it is surprisingly drought-tolerant once established. The seeds provide food for waterfowl, gamebirds and songbirds.



Purple Beautyberry

Shrub of the Year Callicarpa dichomata

Height: 3-5 feet high Spread: 4-6 feet wide

Sun: full sun to part shade

Soil: adaptable

Purple beautyberry is primarily grown for its showy fall display of lilac-violet berries. Long, arching branches loaded with fruits bend gracefully to the ground from early fall into winter. It bears tiny pinkish flowers in summer, which mature into tight clusters of neon purple berries in autumn.

Due to their remarkable berry display, beautyberry shrubs are striking enough to be used individually as specimen plants but the best cross-pollination and fruit production occur when they are planted en masse. For fresh new growth, stems can be cut back to 6 inches in late winter since berries are produced on both new and old stems. Though variable, foliage can have good yellow fall color. It can tolerate drought and either full sun or part shade.



Korean Fir

Evergreen of the Year Abies koreana

Height: 15-30 feet high Spread: 6-12 feet wide

Sun: full sun

Soil: prefers rich, well-drained soil

Korean Fir will appeal to gardeners seeking a compact evergreen for their landscapes. A wonderful feature of this beautiful tree is the amazing violet/purple cones that fix themselves upright on the tips of branches in summer, like intricate ornaments. Although Korean fir has only a slow to moderate growth rate, the 2-3 inch cones often develop on trees only 3-5 feet high.

It has a very compact, dense habit and bright green needles have a distinctly bright underside. This tree is treasured by conifer collectors and can be hard to find in the nursery trade. It prefers rich, well-draining soil and protection from hot summer winds.

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'Fontanelle' Spuria Iris

2014 GreatPlants Release GreatPlants™ Brand 'Fontanelle' *Spuria Iris*

Height: 36-40 inches high Spread: 18 inches wide

Sun: full sun Soil: adaptable

This unique iris was discovered on an old farmstead near Fontanelle, Neb., by plantsman Harlan Hamernik. It blooms the first two weeks of June and has upright, sword-like foliage. The falls or lower petals are two-toned in color, with a lovely pinkish-lavender style crest and pale blue sepals with prominent blue veins and a bright yellow signal or spot. The upright, standard petals are royal blue. The flowers and stalks are tough and won't break as easily as those of tall bearded irises.

NOTE: A Release is a named cultivar developed by GreatPlants

Growing New Roots: The Transplanted Gardener

Jan Riggenbach, author of *Your Midwest Garden: An Owner's Manual* from the University of Nebraska Press

Leaving the gardens my husband Don and I spent 36 years creating wasn't easy. We particularly mourned leaving our hundreds of species of woody plants, like the 35-foothigh katsura tree we grew from a baby distributed through the Nebraska Statewide Arboretum (NSA) plant consortium. And the *Acer takeshimense*, another consortium plant, so rarely grown that it has no common name. It grew into a fine small ornamental tree that is as pretty as a Japanese maple but—much to our surprise—can fend for itself in a sunny, windswept pasture of brome without supplemental water or winter protection.

When Don's health dictated that we downsize from our 30 acres, the sensible thing would have been to buy a condo and take it easy. But for plant lovers like us, doing without a place to plant seemed as impossible as giving up oxygen. So we started looking for a new place in the city to call home. Our search took two years, but we found a delightful lot: eight-tenths of an acre in the center of Omaha, with some mature trees including three oaks, a sugar maple, two old concolor firs and a serviceberry. The lot is across from a neighborhood park, and we delight in borrowing the view, pretending we still live in the country.

My developing landscape is a product of things I've learned from many plant people along the way. For example, Galen Gates from the Chicago Botanic Garden spoke years ago at Spring Affair. He told his audience that it's always better to use plants instead of hardscape to solve landscape challenges. Taking his advice to heart, I resisted the idea of using massive retaining walls to tame the steep slope in front of our new house. Instead, as soon as the grading was done, I hurried to the NSA greenhouse and bought New Jersey tea plants for the slope.

This small native shrub was already a favorite of mine, not the least because its clusters of small white flowers and the tiny insects they attract are a magnet for hummingbird parents raising their babies. Turns out, it's also a good choice for erosion control. And, to my eye, the shrubs are much more appealing than a retaining wall.

When planning the curbside plantings, I remembered *The Authentic Garden: Five Principles for Cultivating a Sense of Place* by Claire Sawyers. She says the landscape should imitate the native scenery, so you know at once where you are. Since nothing says Midwest more than prairie grasses, I decided to plant little bluestem on one side of the drive, prairie dropseed on the other. Weaving between the bluestem are forbs such as purple prairie clover, penstemon and prairie smoke. Brightly-colored favorites such as Missouri black-eyed Susan and blanket flower dot the ground between the prairie dropseed plants. Both areas are a lot more interesting than turf, and



there's a big bonus: no watering (once established) and no mowing.

I needn't have worried that my neighbors would object to my planting a little prairie in place of turf. One actually thanked me for "showing us a different way."

Speaking of turf, my original intent was to have none at all. Already faced with downsizing from an acreage to a city lot, I first thought I would need the whole yard to feed my plant addiction. And besides, mowing seems like a waste of time and energy. But I had to admit we'd need a place to pile snow from the driveway in winter. And I really do like the edge effect where garden beds meet grass.

Lucky for me, Neil Diboll of Prairie Nursery (www. prairienursery.com) has spent years developing a No Mow Lawn Mix especially for those of us who favor native plants but still want a little patch of turf grass. It's a blend of six slow-growing fescues, and it produces a low, soft-flowing carpet of grass that reduces mowing to once or twice a year, or never, depending on whether you want to mow to remove seedheads and autumn leaves, or not.

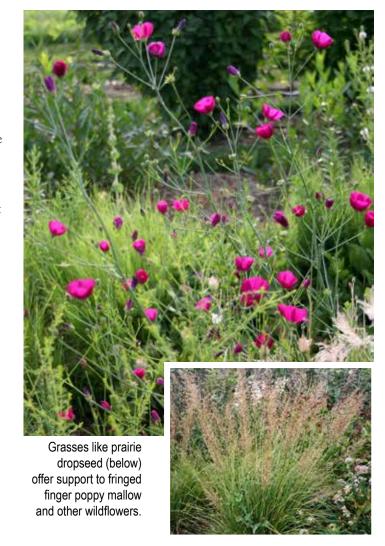
Don and I think the mix produces a lawn that is exceptionally soft and beautiful. It forms a dense, durable sod that out-competes weeds. It requires no fertilization and needs watering only in periods of drought. The grasses in the mix are a good choice for partial shade or full sun.

As I develop our new landscape, water conservation serves as an important guiding principle. Two large berms near the street behind the prairie plantings hold back water long enough for rainwater to soak into the ground, creating the perfect spot for moisture-loving natives such as Riddell's and Fireworks goldenrods and ironweed to thrive. In the solid clay at one corner of the house, thirsty plants like palm sedge and white turtlehead guzzle water that would otherwise cascade down the driveway. At another corner, a 300-gallon rain tank catches water from the downspout for later use in the raised beds that are my new vegetable garden.

Reluctantly, I gave up the idea of using porous pavement for the driveway. It would have required deeper excavation, further stressing a mature oak tree we're still hoping will be a long-time survivor despite the rigors of home construction.

My new gardens rely heavily on native plants, many acquired from NSA plant sales. Not only do these natives tend to be dependable survivors, they are also the best hope of attracting birds and butterflies. Nevertheless, I'm not a purist and don't hesitate to include plants from other parts of the world. I like the non-native feather reed grass, for example. But for a different look, I paired it with the native fringed finger poppy mallow (*Callirhoe digitata*). The grasses make the perfect crutch for the spindly wildflowers, which grow 3 feet high and produce a succession of magentacolored blooms all summer.

As old plantings on our former acreage grew into maturity, Don and I had discovered that the contrasting colors and textures of our diverse woody plants were what made the landscape so attractive. Still desiring a diverse landscape in the city, I'm grateful that there are now many

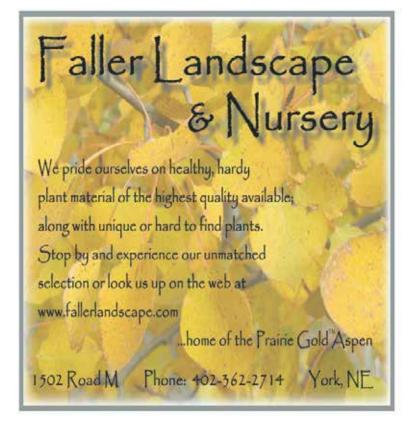


space-saving cultivars available. Skinny trees, dwarf conifers and pint-sized shrubs only a few feet high are perfect for us and other city gardeners who treasure diversity.

My new garden presents many challenges. There's heavy clay soil around the house, the unhappy result of excavating for the basement. And a semicircle of walnut trees in the back, producing juglone that is toxic to many kinds of plants. Deer are infrequent visitors compared to the herd that lived on our acreage, thank goodness, but we soon learned that there were so many rabbits we'd have to cage our newly-planted trees and shrubs if they were to have a chance of surviving their first winter.

Our new landscape is a work in progress, still evolving as I search for the right plants to meet each challenge. I'm impatiently waiting for the new plantings to mature, filling in the bare spots in between.

But I'm having a ball, enjoying the chance to try plants I've never grown before, and grateful indeed for a new beginning.







A Living Garden

Omaha native **Rachel Anderson** fell in love with prairie plants while studying horticulture at UNL. She's pursuing her master's degree in landscape architecture at lowa State University with a focus on ecological design.

Heraclitus said, "No one ever steps in the same river twice." This can also be said about gardens. The best garden is interesting and engaging, with change unfolding constantly; it is never experienced the same way twice. One week, we might

see a white blossom in its prime, with bees all around; then the next a green berry hangs in its place, which eventually reddens; and in September we witness it picked clean by



What Do Millenials Want from Gardens?

Landscaping with Native Plants—A Conversation

Ryan Armbrust graduated from the University of Nebraska-Lincoln (UNL), worked with the Nebraska Statewide Arboretum and learned all he could from Harlan Hamernik. He works for the Kansas Forest Service and is pursuing a master's degree at Kansas State University.

Laura Armbrust also graduated from UNL in horticulture. She interned at Great Plains Nursery and now works at Blueville Nursery in Manhattan, Kan.

Ryan: Five years ago, when I wanted to plant something new in the backyard, I did what most folks do—I headed to the local garden center and picked up some interesting-looking plants, brought them home and stuck them in the ground. Maybe I put a bit more thought into it than that, but I certainly didn't purposely consider using native plants. Now, I almost always use natives.

Laura: I was the same way. I grew up in the garden, and my quality time with my mom was usually going to garden centers. I remember spending about half my summers fighting black spot on roses and deadheading every flower on the whole farm. I got tired of it but figured it was just part of having a pretty landscape. When I learned about natives, it increased the palette of plants that I could use, and offered a different philosophy of managing the landscape.

Ryan: I had a similar revelation that really opened my eyes. The first time I saw a landscape that used lots of native plants, I knew something was just right. These are plants that spent thousands of years learning to live together—of course they look "right" when they're planted next to each other.

Millennials, Living Garden continued from page 8

a robin's beak. A good garden invites us to experience the ever-changing inner workings of the natural world, and therein lies its beauty.

Unfortunately, many gardens today do not exhibit such dynamism; instead they seem trapped in a strange, static state of being. Everything is green all the time and kept in

its place, not allowed to grow or die. Flowers are deadheaded to create an endless summer, shrubs are pruned to stay perfectly round and leaves are raked as soon as they fall. Grass



is mown and fertilized to maintain a carpet of vivid green and wildlife and pollinators are discouraged. Functioning only for curb appeal, this kind of garden emphasizes looking over living. If we've seen one, we've seen them all, and so it does not hold our interest long.

The living landscape, however, continuously reinvents itself to offer new surprises—and not just for looking, but for moving, growing and being. More than scenery, a good garden invites us to spend time enjoying it and exploring it. Something is revealed with each visit that gives us knowledge

about the world. After all, the outdoors is the stage for all kinds of organisms and processes. Along with different sights, scents and sounds, there is a wonder of



boundless activity that accompanies fluxes of energy, matter and time. Cycles of birth, death and rebirth remind us that the garden is bursting with life, and this ultimately is what makes it so alluring.

By taking a closer look at how a flower blooms or how a seed sprouts, more can be understood about the earth's intricate web of which we are a part. In getting to know nature, we get to know ourselves—which is something every garden can facilitate.

Millennials, Landscaping with Natives continued from page 8

Laura: I distinctly remember sitting in landscape appreciation class and the professor was comparing a landscape using natives and one using introduced plants, and I didn't like the native one because it was sloppy. After learning more about prairie plants and how they co-mingle and why some things look good together and others don't, I realized that the picture the professor showed was just a sloppy, overplanted landscape. Now that I've seen natives used properly, I'm in love.

Ryan: It's probably a bit more challenging to successfully landscape using natives, because they haven't been bred and selected to bloom all year, have good fall color, smell great,

cook-your-dinnerand-clean-your-house like Karl Foerster grass and Stella d'Oro daylilies. With that said, however, I appreciate the challenges of using plants with character. And it's great fun to watch a landscape change throughout the season with the ebb and flow of multiple plants blooming and fading as the weeks pass, and new species filling in where another has iust faded.



Laura: I enjoy the challenge, and it's so rewarding when it turns out well. We put in a few small planting beds at a friend's house using mostly natives and he liked it so much he called us back to do more. We also planted several areas to natives and other well-adapted species at my sister's house in northeast Colorado in spring 2012, and even my dad was excited about the results. He's not easily excited.

Ryan: We've gotten to be so enamored with native plants that when we moved to Kansas this spring, we filled the barren yard at our rental house with hundreds of plants—almost all natives. We're zealots, you might say. But when it came to selecting plants to fill the niches in the yard, we kept coming back to plant solutions that incorporated native species. The wet spot by the downspout? Sedges and *Liatris* (photo of *Liatris* above). The scorched dry spot in full sun? Pincushion cactus and greenthreads. The windblown area by the front porch? Little bluestem and prairie asters. We seemed to find a perfect native solution for every problem spot.

Millennials, Landscaping with Natives continued

Laura: In addition to that, we were able to easily and inexpensively beautify our little yard (much to our landlord's delight) and reduce the amount of unproductive turf area. We've made some bees happy, too. You never would have heard me get excited about bees a few years ago—I used to HATE them. But with a knowledge of native ecosystems comes a knowledge of ecology as a whole, and I'm now fighting for the insects, one flowerbed at a time.

Ryan: And it's not just the perennials that we've been planting for friends and family throughout the Midwest. Native tree species represent a huge potential increase in our urban

canopy diversity. Okay, sorry, that's forester-speak for "these trees are unbelievably great and we need more of them." If you limit yourself to oaks, you can plant at least two dozen different species in Nebraska alone. And there are few trees as strong, long-lived, climate-resistant, beautiful and beneficial as the mighty oak. And forget about "slow-growing"—not if you plant an oak that's been properly grown with a well-branched, fibrous root system.

Laura: Excuse my husband and his oak rant. But really, oaks are awesome. Plus, they're habitat to so many native insects, birds and so on. I'm all for increasing tree diversity everywhere, with a strong focus on native trees. Any native tree you can plant is helping beneficial little critters that will help keep balance in the ecosystem as a whole, urban or rural alike. And they'll be tough







Photos of greenthread and asters on left; red oak in fall above.

and resilient because they're adapted to grow here.

Ryan: It may sound like we should all plant natives because it means we're doing our part for the greater good, for ecosystem services and for community betterment. Well, those things are certainly true, but let's not pretend we're being totally selfless and saintly here. We're also planting natives for the beauty they bring to us. It's a win-win, as far as I'm concerned.

Laura: Also, if you let them behave as they will, eventually you reduce the time and effort needed for maintenance. Quit deadheading everything and let some new seedlings come up. (Free plants. Woohoo!) Eventually the weeds won't be able to compete. Allow beds to establish with deep, infrequent watering and you'll only have to water during severe drought.



Ryan: To be fair, we shouldn't give the impression that just because a plant is native it will be a perfect plant. You can never discard the motto of "right plant, right place." But there are some truly fantastic natives that are bafflingly underplanted. Take palm sedge, for instance. This attractive, upright, dense grass can take flooding, drought, shade, sun and just about anything else you can throw at it. A tiny 3-inch plug will have such a massive root system after three years that you might need a tree spade to dig it out. And it's selfmulching, requiring little maintenance. There are dozens of

plants like that which, if people only knew about them, they would use throughout their yards. And don't get me started on serviceberry. Why anyone would ever plant a crabapple when they could have a serviceberry is beyond me.

Laura: Many people have not yet discovered the beauty that can be had in a multi-stemmed tree. Everybody thinks they want a cookie-cutter lollipop on a stick. Though there are quite a few awesome, underplanted and widely adaptable species, I almost hate to pick just one or even a few plants for fear of ushering in a new but native era of the same plants

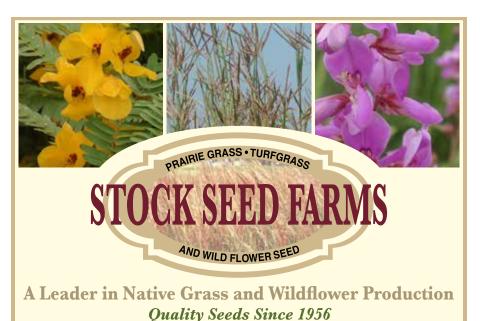
> in every landscape. The key is diversity and planting the right mix in the right conditions. When plants look good and act healthy, there's a reason.



Palm sedge.

Ryan: If I could sum it up in one analogy, I'd perhaps put it this way: why do we keep coloring with a box of 8 Dollar-Store crayons when we could use the big box of 128 premium colors? I like to use native plants for many reasons, but maybe the biggest draw for me is the opportunity to plant some really cool stuff.

Laura: Absolutely. Using a variety of plants and focusing on native trees, shrubs, perennials and annuals has almost limitless potential. Your yard will be unique, attractive, beneficial and low-stress. What's not to love?



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AD LAURITZEN FULL-PAGE				

Crazy Grazing—Weeds & Other Edibles

Bob Henrickson, GreatPlants® Coordinator

Edible landscaping has become more popular than I ever thought it would or could. With budgets tightening, many folks are considering growing food instead of just flowers and other ornamentals. We're seeing gardens that are both beautiful and have delicious, healthy produce. It only makes sense. Many of us are taking it one step further and planting native plants to attract the pollinators necessary for many of these edibles.

If you're growing edibles among your other landscape plants, you've likely been told that they should have neat and tidy growing habits, minimal pest problems and bountiful production. That's great, but it takes a lot of work and expense to keep weeds out and maintain a pristine garden.

Weeds can be a constant battle, but I've learned that a number of them are worthy components of an edible land-scape. I like to eat good food so I was skeptical about eating dandelions and stinging nettle greens, milkweed and cattail shoots. Sure, you can eat them, but probably only for survival food, right?

I've always hated weeds, or at least I was taught to hate them. I grew up in a small town in northeast Nebraska, an area surrounded by corn and soybean fields. If you wanted a job as a pre-teen, your options were usually limited to either walking beans or detasseling corn. If you didn't grow up in the Midwest, walking beans means going through a bean field with a hoe or machete and cutting out all the weeds in a 6 to 8 row swath. It was a good way to keep us kids occupied, teach us the value of doing a job right and show us what a full day of work was like. Possibly it was a way to motivate us to get good grades and go to college so we wouldn't be walking beans after high school. Very few kids walk beans anymore, but that's another story. At any rate, bean-walking made me more observant and attentive. Believe me, if you missed a weed, the farmer let you know about it. I learned my weeds and how to take them out.

Some weeds were easy to hoe, pull or chop. Veteran bean walkers had a top 10 list of hated weeds that were difficult to eradicate. At the top of the list was the dreaded common milkweed. I chopped thousands as a kid, but now that I know monarch butterflies, milkweed bugs and milkweed leaf beetles could not survive without it, and that it's the primary food source for many other species of insects, I grow it in my garden.

Did you know we can eat common milkweed too? The boiled young shoots and immature fruit pods are delicious. The milky sap is toxic so you need to boil them for a few minutes and discard the water but, once cooked, they taste similar to green beans. Later in the summer I harvest the fragrant flower clusters and dip them in a fritter batter. The

clusters fry a golden brown and you can top them with a dusting of powdered sugar. Yummy!

Don't harvest all of the flower clusters since you will want to have plenty of immature seed pods for harvesting a little later in the season. The young, firm, green pods can be boiled for about 10 minutes and added to casseroles or soups.

There are many reasons to incorporate wild edible weeds into the residential landscape. Okay, I know there are limits, but you will find yourself planting milkweed, burdock and goatsbeard salsify, and letting your lamb's quarters set seed for next year's "crop." These are fresh, free, nutritious foods you will never find in stores, and grazing in the wild and in my yard is another way to get outside, interact with the natural world and have fun.

Here are some of my favorite wild edible weeds that are delicious and easy to harvest, prepare and store for later use.

Stinging Nettle, Urtica dioica ssp. gracilis

People have been gathering and eating stinging nettles for decades. I learned of them from my friend and mentor, Kay Young, author of Wild Seasons, a book about gathering and preparing wild food. Nettles are harvested early in spring; and they're one of the first plants to emerge. They



may sting when you harvest them (so wear gloves), but the stinging hairs dissolve and are harmless once cooked. They are better than collards, kale, spinach or about any green I can think of. The leaves also can be dried and crushed into soups and casseroles (my kids have been unknowingly eating them for years). This is one wild food that you will want a lot of, so plan on gathering a grocery bag full.

During World War II, Young says many families in Germany relied heavily on the stinging nettle plants that grew up through the rubble at a time when few other green vegetables were available.

For years, people in Europe and the United States have eased their hay fever with nettle tea, which has everything

Crazy Grazing continued on page 14

Crazy Grazing continued from page 12

from calcium and potassium all the way to vitamins C, E and K. Nettles have 17 essential vitamins and minerals in addition to fatty acids, lycopene and several other beneficial phytochemicals, making it a natural anti-inflammatory and pain reliever. Though I'm not a big tea drinker, nettle tea is tasty.

Lamb's Quarters, Chenopodium album

Ava Chin, Urban Forager blogger for the New York Times, writes, "I remember the first time I tried lamb's quarters, nibbling on the young, tender raw leaves plucked from the tip of the plant. I thought they tasted pretty much like other leafy greens. I didn't expect to be wowed once I got them into my kitchen. But after sautéeing them in



olive oil and adding a little bit of salt, I took my first bite and nearly dropped my fork. I knew lamb's quarters was supposed to taste like spinach, but I wasn't prepared for them to out-spinach spinach."

Young's creamed lamb's quarter greens recipe is delicious and easy to make as well. Just harvest the top growth from young plants, and gather a bunch because you can store it in freezer bags once it's been blanched. Like its cousin quinoa, it's a super-food—high in Vitamins A and C, riboflavin, niacin, calcium, manganese, potassium and iron.

Curly or Sour Dock, Rumex crispus

This weed is everywhere and a nemesis to anyone trying to eradicate it. It is a weed, so if you plan to gather this plant or any other weed, make sure you don't collect from areas that have been sprayed. Harvest only the tender, young leaves in early spring and later in



summer from the center of the rosette. The mid-veins of larger leaves are best removed. Once cooked, the leaves will

fade to a dull khaki color and can be used as a cooked green or for "dock roll-ups." According to folklorist Roger Welsch, author of *Weed Em and Reap*, "boil or steam fresh young leaves for just a short time, add a few drops of fresh lemon juice, a little bacon grease or butter and a little salt and you will have a first rate, and very wholesome, vegetable green to go along with your T-bone steak."

Weeds aren't the only collectables we can harvest for food. Why not get back to collecting wild berries from fields, prairies, roadsides and wooded areas? Better yet, why not plant them in our own landscapes? When you were growing up, was there anyone in your family who used wild plants for homemade jellies and wild fruit jams? We need to carry on these traditions. Young said it best: "Not only are certain wild fruits nutritious and tasty, the gathering of them involves the important processes of exploration, discovery and learning. Persons who explore and come to know the natural world around them develop a sense of how the earth works and a feeling of being connected to it. Even if the natural world that they explore and gather is limited to a backyard, what happens there each season is important in their learning." I think this applies to everyone, young or old.

Here are a few other wild plants that should be planted more. Some of these shrubs are becoming rare and could be lost forever through habitat destruction and cross-pollination



with imported material. We need to make sure that doesn't happen, as they're a valuable food source for humans, wildlife and pollinators.

American plum, Prunus americana

Wild plum is a small native tree or shrub that forms dense thickets with sharp-tipped twigs. The abundance of ripe 1-inch plums in late summer or early autumn makes this a favorite of wild food buffs. When ripe, the sweet yellow, red or purple fruits are fleshy and juicy. Plums can be eaten fresh in season or processed into a sauce for meats or desserts. Plum jelly and jam are great for bread or toast and spiced plum jelly makes a great baste for roast meat, especially



wild game. The Omaha tribe often dried the fruit for winter use and planted corn, beans and squash when their fragrant spring flowers came into bloom. (Note: these aggressive, thicket-forming shrubs can be contained by surrounding them with mowed areas or other thicket-forming shrubs nearby for competition.)

Chokecherry, Prunus virginiana

This durable large shrub forms dense thickets, making it useful for a quick screen. Chokecherry often gets overlooked as a landscape plant because of its suckering habit but it's well-behaved in shady conditions or in confined beds. The fragrant, pendulous flowers are beautiful in early spring, followed by showy red fruit clusters that change to black when ripe. In earlier times, the cherries were pounded to a pulp, pits and all, shaped into small cakes



and laid out to dry in the sun. They make one of the most delicious jellies in the world and prepared chokecherry juice can be used for syrups, jellies or mixed with yogurt, honey and gelatin for a delicious mold dessert. For a beverage, try Young's colorful and delicious chokecherry fizz, a mix of chokecherry syrup, ginger ale and a squeeze of lime juice.

Crazy Grazing continued on page 16

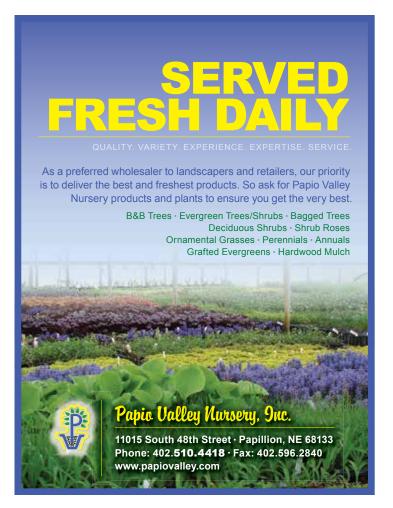
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Juneberry or Serviceberry,

Amelanchier species

Juneberry can be grown as a small tree or shrub. The clustered fruits change from wine red to deep blue black when fully ripe. They look like blueberries but reportedly have 10 times more vitamin C. The fruit is delicious right off the tree (my little dog loves them) or made into pie, jam, syrup, sauce or wine. The seeds are chewable and have a subtle almond flavor. You can also dry the fruit and use them much like raisins. Juneberry is one of the easiest wild fruits to collect and enjoy.



Clove or Buffalo Currant,

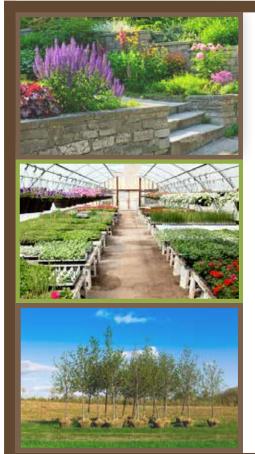
Ribes odoratum

This native shrub grows to around 5 feet high. It has clusters of spice-scented yellow flowers in spring, followed by fruits that turn black when fully ripe. The selection 'Crandall' has particularly



large, juicy fruits that make excellent jam, jelly, syrup, pie or a chunky topping for yogurt or hot oatmeal. It's also an attractive landscape plant for sunny locations.







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Promoting Plains Plants & Pollinators

Louise Lynch, Graduate Research Assistant, and Doug Golick, Assistant Professor, Department of Entomology at the University of Nebraska-Lincoln

At first glance, it may seem that the life of a flower is a simple one. Rooted in soil, they stand and sway in the Plains winds, bask in the sun's rays and soak up the moisture of prairie rains. However, flowers are more like ambitious and industrious merchants than the silent and delicate organisms they appear to be. Their primary customers are pollinating insects to which they advertise and hand out free samples, all with a single, self-serving ulterior motive—pollination. Without pollination, plants cannot produce seed or propagate genetically diverse offspring.

Plants and pollinators have closely co-evolved to the mutual benefit of one another. Plants provide sugary nectar (carbohydrates) and pollen (protein) as rewards for visiting pollinators. By chance, pollen is carried by visitors to other plants and, with enough luck, transferred to the right plant species where fertilization and seed production occurs. Most flowers advertise to pollinators by emitting sweet, attractive, floral aromas that surround the blossoms, teaching pollinators to associate food with the scent. Flowers are also pollinator-attracting "billboards" in vibrant shades of blue, pink, yellow, white, violet and everything in between. Many bee-attracting flowers also have ultraviolet nectar guides on their petals to direct visiting bees to the flowers' nectaries. Flowers also provide nectar in small quantities so that an individual pollinator cannot get all the food it needs from one flower—it must visit several flowers to "fill up." All of these floral advertisements help ensure that pollinators associate a flower species with valuable rewards, so that they visit other flowers of the same species, increasing the chances that pollen is transferred to the correct plant.

Pollinators a-plenty

There are many different animals that facilitate the pollination of plants, including bees, butterflies, moths, flies, wasps, beetles, birds, bats, small mammals and lizards. In terms of services rendered, insects are the most efficient pollinators, with bees being the most prolific of pollinators.

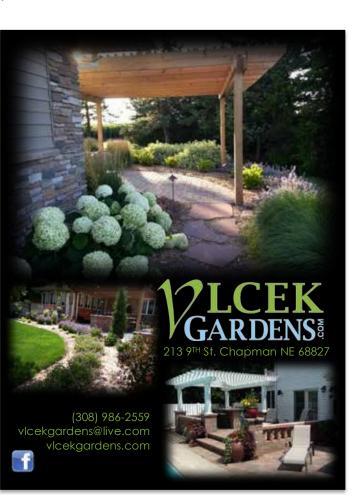
The Great Plains is home to a number of charismatic native insect pollinators. Bumble bees can first be seen in early spring, when solitary queens emerge from a long winter hibernation, looking for food and nesting sites. The blue orchard mason bee can be found buzzing around fruit trees in May, at the height of the bloom. Summer brings out hawk moths, often mistaken for hummingbirds by casual naturalists, which hover in front of the flowers they feed from. Late summer brings an abundance of bee-mimicking flies, protected from predators with their black and yellow



Top photo: Plants and pollinators, like this sunflower and bumble bee, rely on one another for survival.

Opposite: Sweat bee leaves a Rose of Sharon flower carrying pollen.

All photos for this article courtesy of Louise Lynch.



"warning" coloration. The familiar monarch butterfly adults can be seen in September, flying through rural and urban landscapes en masse, on their migration to Mexico. Fall also brings out orange and black soldier beetles, predators of other insects and incidental goldenrod pollinators.

Bees are Designed to Pollinate

Unlike other insects, bees solely rely on pollen and nectar for their development. Adult female bees collect pollen and nectar for their own survival and for feeding their young. Bees' body parts are designed to collect pollen and nectar. Most bees have branched body hairs that capture sticky pollen. This fur carries an electrostatic charge to better attract pollen grains. Bees groom and gather pollen from their body hair, storing it on their legs or underside for transport back to their nest. A bee's tongue is especially adept at reaching and siphoning nectar from many flower shapes.

Benefits of Pollination

The impact of pollinators is most evident in our food supply. One third of the foods we eat are directly tied to insect pollination. Many of our fruits, vegetables, seeds and nuts come from pollination of flowers pollinated by bees. Indirectly, many more foods have a link to bee pollination. For example, bee-pollinated alfalfa and clover feed livestock that provide meat, cheese and milk. In addition to food, we benefit from the natural beauty of our flowering landscape as

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A hawk moth sips nectar from bee balm (Monarda).

bees and other pollinators enable the seed development that is vital to the genetic diversity and spread of plant species.

Native, Flowering Plants for Pollinators

Insect pollinators are vital for our food supply, our home landscapes and the environment. A key factor in supporting pollinator populations is providing native blooming flowers (food resources) throughout the year. Bee populations can be further promoted by providing nesting habitat, such as undisturbed tall grasses, bare soil patches and brambles. Humanmade habitats can be created from logs pre-drilled with holes that are 5 inches deep and range in diameter from an eighth to three-quarters of an inch. By promoting local pollinator populations through planting native flowers and providing nesting habitat, you can benefit your garden and community landscape.

Promoting Plains Plants continued on page 20



Promoting Plains Plants continued from page 19

The following plants are listed because they are native to Nebraska, are known to attract bees (and other native pollinators) and will provide a succession of blooms throughout the months when pollinators are active. Seeds for these plants can be found online, and through regional and national seed distributors.

Native Plants for Early Season— April and May

Wild columbine (Aquilegia canadensis)
Long-bracted spiderwort (Tradescantia)
Hoary vetchling (Lathyrus polymorphus)
Shell-leaf penstemon (Penstemon grandiflorus, cobaea and digitalis

Daisy fleabane (Erigeron strigosus)
Tall hedge mustard (Sisymbrium loeselii)
Blanketflower (Gaillardia aristata)
Wild buckwheat (Eriogonum annuum)

Native Plants for Mid-Season— June and July

Wild bergamot or beebalm, (Monarda pectinata, M. fistulosa)
Purple prairie-clover (Dalea purpurea, photo below)



Rough gayfeather (*Liatris aspera*) Butterfly milkweed (*Asclepias tuberosa*) Plains sunflower (*Helianthus petiolaris* and *annuus*)

Native Plants for Late Season— August through November

Pitcher sage (Sahia azurea) Goldenrods (Solidago gigantea, missouriensis and rigida)

Asters (Aster oolentangiensis, novae-angliae, oblongifolius and ericoides)

Maximilian sunflower (Helianthus maximiliani)

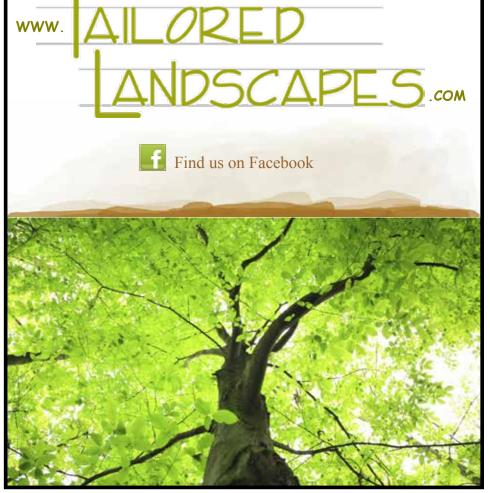
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The black and yellow "warning" coloration of this hover fly mimics the banding seen in bees.



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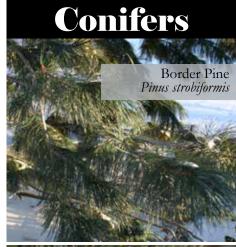








Not pictured: Shagbark hickory, *Carya ovata* Chinkapin oak, *Quercus muehlenbergii* American hophornbeam, *Ostrya* virginiana









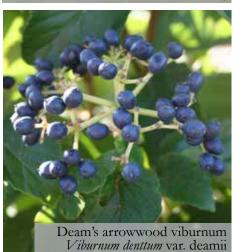


Not pictured: Canaan fir, *Abies balsamea* var. *phanerolepsis* Concolor fir, *Abies concolor* Swiss stone pine, *Pinus cembra*

More information on these plants at: arboretum.unl.edu



Redwing American Cranberrybush Viburnum, Viburnum trilobum 'Redwing'



























Not pictured: creeping mahonia, *Mahonia repens* Kalm's St. John's wort, *Hypericum kalmianum*

Grasses

Blue Heaven Little Bluestem Schizachyrium scoparium Blue Heaven'TM





















Not pictured: Little bluestem, Schizachyrium scoparium Autumn Red miscanthus, Miscanthus sinensis var. purpurescens

Perennials















Butterfly milkweed Asclepias tuberosa











Not pictured: Variegated Solomon's Seal, *Polygonatum multiflorum* 'Variegatum' Arkansas bluestar, *Amsonia hubrichtii*

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'Pink Clouds' hibiscus





Mongolian Silver Spires' littleleaf peashrub Caragana microphylla 'Mongolian Silver Spires'









More information on these plants at: arboretum.unl.edu



'Prairie Pink' dianthus

Dianthus caryophyllus 'Prairie Pink'





















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