

2023

Let's Rethink the Lawn

A MESSAGE FROM THE EXECUTIVE DIRECTOR



Hello and welcome to 2023! The Nebraska Statewide Arboretum staff have declared 2023 the Year of Lawns. This declaration might surprise you, considering we are the first ones to send you to somewhere else when you ask questions about turf grass. But see there, I said it's the Year of Lawns, not turf. We want everyone to spend 2023 thinking differently about their lawn.

All of us at the Nebraska Statewide Arboretum have been thinking differently about our lawns for years now, so we've got some knowledge to pass along. From sedge meadows to prairielike plantings to buffalo grass, we've got ideas about how you can mow and fertilize less and enjoy your yard more.

Don't get me wrong, I have a dog, so I completely understand the need for a bit of uninterrupted turf (turf that I am constantly repairing, as all dog lovers know too well). However, since moving

into my home in 2017, I have been slowly replacing parts of my turf with various planting beds. It all started with my Bloom Box (see the article on page 13) and has since evolved to what at times is a carefully envisioned and designed garden bed (hello, front yard) and at other times is a "I bought it, so now I need to find a place to plant it" haphazard approach (hello, back yard).

Those of you who listen to my and Sarah Buckley's podcast (Bloom Box: Growing Deeper—find it everywhere you listen to podcasts), know that 2022 was the year of the front yard for me. After removing a huge ash tree, I installed a large bed of natives, where a full shade area became a full sun area. I revitalized my hell strip. I planted two new trees. Then I had what I believe is one of my best ideas yet (can you sense the hyperbole?). I still have a large bare spot left by the tree removal, so, by Halloween 2023, that bare spot will be a pumpkin patch. In my front yard. It will be the neighborhood pumpkin patch. I. Can't. Wait.

Throughout this issue of The Seed, you'll learn about all the different ways you can rethink your lawn. Perhaps your front yard won't become the next neighborhood pumpkin patch, but maybe you'll consider replacing part of it with native perennials. Or experimenting with a small sedge meadow. Or sowing in some clover to create a more diverse lawn. As you'll come to see, there are many options.

Join me in this brave new world full of front yard pumpkin patches (it needs to be a thing). I think you'll find it's a lot more fun.

Happy Gardening,

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Hanna Pinneo Executive Director Nebraska Statewide Arborteum

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OUR MISSION

WE PLANT NEBRASKA FOR HEALTHY PEOPLE, VIBRANT COMMUNITIES AND A RESILIENT ENVIRONMENT.

WHAT'S	INSIDE
3 SEEDLINGS – BITS OF GARDENING WISDOM	MIX IT UP - CREATING A POLYCULTURE LAWN
MAKE A SEDGE MEADOW	GARDENING WITH NATIVES
5 THE BEAUTY & BENEFITS OF BUFFALO GRASS	TREES AND TURF - SEPARATE IS BEST
PURPOSEFUL TURF	13 START SMALL: BLOOM BOX STORIES

SEEDLINGS BITS OF GARDENING WISDOM



A xeriscape requires very little water after it is established.

ESCAPE TO A XERISCAPE

It may sound like an obscure sci-fi fantasy vacation, but in actuality, a xeriscape is a kind of landscape style that requires little to no irrigation or other maintenance. Derived from the Greek word *xeros*, meaning "dry," the term xeriscape literally means "dry landscaping."

The "x" is pronounced as a "z," which sometimes leads people to misspell or mispronounce the word as "zeroscape" which is unfortunate, because a xeriscape can be a vibrant, flourishing garden full of pollinator activity and visual beauty.

Though xeriscapes are popular in arid environments like New Mexico and Arizona, Nebraska's hot temperatures and often-dry summers make xeriscaping a great option here too. If you are looking to replace part of your lawn with a low-maintenance native garden, you might want to considering adding a xeriscape to your landscape.

HER LAWN LOOKS LIKE A MEADOW, AND IF SHE MOWS THE PLACE SHE LEAVES THE CLOVER STANDING AND THE QUEEN ANNE'S LACE.

From "Portrait by a Neighbor," by Edna St. Vincent Millay



'Snow Flurry' Heath Aster (Aster ericoides)

FAVORITE NATIVE SPOTLIGHT

Working on transitioning a segment of your lawn to a native pollinator garden? NSA Sustainable Landscape Specialist Sarah Buckley recommends that you add some 'Snow Flurry' Heath Aster (*Aster ericoides* 'Snow Flurry') to the mix. The plant, which blooms in clusters of small, white daisy-like flowers in early autumn, spreads well and typically stays fairly low to the ground, making it a good choice for ground cover. 'Snow Flurry' Aster is also a good pollinator, attracting a range of insects including long-tongued bees, short-tongued bees, wasps, flies, butterflies, skippers and moths.

If you're looking for something with a little more height, Buckley recommends Mountain mint (*Pycnanthemum tenuifolium*), which can grow to between two and three feet high (compared to 'Snow Flurry' Aster's six to eight inches). It produces dense clusters of small, white flowers from mid-July to September, tolerates dry conditions and, like the 'Snow Flurry' Aster, also attracts a wide variety of pollinators. Added bonus: you can make mint tea from its leaves.

A LOW-MAINTENANCE ALTERNATIVE TO YOUR LAWN

The concept of the lawn first originated with wealthy 17th-century Europeans. The idea made its way across the pond during Thomas Jefferson's presidency as he implemented turf grass at his famous Monticello homestead, and soon after, other wealthy homeowners began to replicate the style in their own yards and gardens. Today, approximately 2% of the total land mass of the United States (about 40 million acres) is covered in residential lawn. This might not sound like a lot, until you consider how much water it takes to maintain those lawns: literally trillions of gallons annually.

For this and other environmental reasons, scientists have begun to shift the conversation toward how we can convert our lawns back to nature. One worthy idea to consider is the sedge meadow.

VERSATILE, ADAPTABLE AND LOW-MAINTENANCE

Sedges, a grass-like plant with triangular leaves, are a great native plant to help convert your wooded lawns back to a more natural setting. One reason to consider transforming your tree-filled lawn into a sedge meadow is that it is awfully hard to grow turf grass under large shade trees. Unlike turf grass, which often has to compete for sun and water with large trees—like the oaks and cottonwoods that are common on the Great Plains—woodland sedges thrive in shade to part sun, as well as in moist or dry soils, and require little watering, if any, once they are established. This adaptability makes sedges an easy choice to replace the turf grass lawns of our nation.

Another advantage to using sedges is that they can be integrated into either a small or large area of your landscape. Because most species do not "run" or aggressively seed themselves into open ground, you can convert your yard at your own pace. Sedges also require much less maintenance than the traditional lawn. Because they need to be cut back only once or twice a year, if at all, soil compaction from the lawnmower is greatly reduced, which helps shade trees and other native plants thrive.

BENEFITTING THE BIRDS AND BEES

From an ecological standpoint, sedges benefit birds and insects, which like to use sedge meadows as nesting sites. Some wildlife that utilize woodland sedges are ducks, grouse and sparrows, along with several caterpillar species and numerous other invertebrates. Woodland sedges also break dormancy early, giving your landscape a pop of color in the early spring. In addition, using sedges instead of turf grass gives you ground space to plant shade loving perennials (see sidebar) in between sedge plugs. This is not possible with turf grass, as there is no space for other plants to grow.

Overall, their adaptability, versatility, low-maintenance and ecologically friendly impact make sedges a great aesthetic, environmental and financial alternative to the traditional lawn.

John Woodworth is the Horticulture Assistant for the Nebraska Statewide Arboretum.



Bristleleaf sedge (carex eburnea)



Longbeak sedge (carex sprengelii) at Pahuk Hill

EXPERIMENT WITH THESE NATIVE SEDGES AND PERENNIALS IN YOUR YARD

REGIONALLY NATIVE SEDGES FOR SHADED AREAS

Oak sedge (Carex albicans)

Appalachian sedge (Carex appalachica)

Bristleleaf sedge (Carex eburnea)

Pennsylvania sedge (Carex pennsylvanica)

Eastern star sedge (Carex radiata)

Rosy sedge (Carex rosea)

Longbeak sedge (Carex sprengelii)

A FEW NATIVE PERENNIALS FOR SHADED AREAS

Wild columbine (Aquilegia canadensis)

Wild geranium (Geranium maculatum)

Creeping Jacob's ladder (Polemonium reptans)

Woodland phlox (Phlox divaricata)

Blue Woods aster (Symphyotrichum cordifolium)

THE BEAUTY & BENEFITS OF BUFFALO GRASS LOW WATER AND LOW-MAINTENANCE -WHAT'S NOT TO LIKE?

Love the look of a lawn, but prefer something more environmentally friendly? Consider buffalo grass (*bouteloua dactyloides*). It requires less water than a typical lawn and is much lower maintenance, especially once it's well-established.

"We basically put in the least amount of maintenance required to keep things alive," said Chrissy Land, about the buffalo grass lawn surrounding her home near Scottsbluff. Land, who works as a community forester in western Nebraska, and her husband replaced their "awful, weedy mess of a lawn" three years ago, after their insurance company required them to remove some unhealthy trees in their yard.

"We're so busy, we don't have the time to put into the yard, so in the past, it always ended up looking neglected," admitted Land. "We knew we wanted low-input—low water, low management—so we decided to try buffalo grass."

PUT THE TIME IN UP FRONT

Land and her husband ripped up the remaining grass, ground up the stumps from the trees they had taken down and then dispersed the wood chips across the area before tilling and grading. They used a glyphosate herbicide on the weeds—which has a relatively short lifespan and does not have a long-term impact watered the soil well and then tilled two more times again before reseeding.

The Lands put down a broadleaf pre-emergent and starter fertilizer along with the buffalo seed. They also spent time raking in the seed so it was between a quarter inch and a half inch below the surface, and then packed it down well.

"Put the time in prepping the soil up front," Land advised. "Just like the foundation of a house is critical, the foundation of a landscape is



The Lands' buffalo grass lawn took three years to be established but is now virtually maintenance-free.



Buffalo grass requires much less water than traditional grass, even during summer's hottest stretches.

critical too. If you don't have a living soil that's been well-prepped, the longevity of your project is going to decrease. You don't bring a goldfish home from the pet store and put it in dirty water."

Land suggests adding a variety of organic matter to the soil compost, manure, wood chips, twigs, leaves. "A bag of compost is like a five-hour energy drink; it burns out fast," she explained. "We need to use different types of organic matter that will break down at different rates for the longtime sustainability of the system."

PATIENCE PAYS OFF

As Land and her husband learned through experience, cultivating a

lush lawn of buffalo grass doesn't happen overnight.

"Plan on three growing seasons to get it fully established," advised Land. The first two years of growth required intensive watering, along with a second round of broadleaf pre-emergent during the spring of the second year.

Watering intensely during the first two years helps develop a good root system; deep roots are what makes the buffalo grass so drought-tolerant.

The Lands also utilized a selective herbicide twice, the first year, once in July and once in August, to allow the emerging grass to stay ahead of the weeds.



KEEP THE MOWER IN THE SHED

Once the buffalo grass is well-established, however, it needs much less maintenance than a typical lawn. In fact, too much mowing can do more harm than good.

"We mow our lawn three times in an entire summer," said Land. "Buffalo grass is pretty much hands-off. The taller the canopy you leave on the grass, the more protected the roots are."

Another benefit of buffalo grass is that it requires much less water to thrive, even during summer's sizzling heat. Land waters her lawn every two weeks, even during 100+-degree temperatures.

"If you want your buffalo grass to be very green, you should water once a week and mow every other week during the summer," said Land. "But in reality, it can withstand a period of time without water and bounce back from it."

Three years after completely overhauling their lawn, the Lands couldn't be happier with the results.

"Buffalo grass is the softest, fluffiest grass, especially if you don't mow it too much," said Land. "I love it. It's low-maintenance, it's a water-wise landscape, and it's beautiful."

Michelle DeRusha is the Communications and Events Coordinator for the Nebraska Statewide Arboretum.

CHRISSY LAND'S TIPS FOR BEAUTIFUL BUFFALO GRASS

- Spend the effort and the time on the foundation. At the outset, establishing a buffalo grass lawn seems like a lot of time and work, but it's worth it when it's so low-maintenance later.
- Use a pre-emergent when you seed to hold the weeds back long enough to allow the grass to get a good head-start.
- Seed in June, which is later than typical lawn grasses. Buffalo grass is a warm season grass that needs warmer soil temps to germinate.
- Mow on the highest setting possible. The taller the canopy, the deeper the roots (and the more drought-tolerant).
- Water intensively during the first two years. Once the lawn is established, watering once every couple of weeks will be sufficient. The grass might brown, but it will come back.
- Contact your local Natural Resources District about possible funding partnerships. The Lands' lawn, for example, was partially funded by North Platte NRD's "Seeding for Savings" program.

PURPOSEFUL TURF

The current standards of the American lawn were developed before we truly understood the environmental dangers of relying too heavily on fuel, water and chemical fertilizers and pesticides. Today, we know better. But there is good news: we can still have lawns that are attractive—and sustainable—by taking a more thoughtful, common-sense approach.

Many of us fall into the rut of standard management approaches, which often include mowing weekly, fertilizing several times each season, frequent watering and weed spraying to eliminate every plant that dares to interfere with our (unrealistic) goal of a "perfect" monoculture lawn. We may even apply preventative fungicides and insecticides "just in case." All of these approaches can be altered to greatly reduce maintenance and become more sustainable, while still having a beautiful lawn.

START WITH DESIGN

An essential first step to save time, money and headaches is thoughtful design. The typical approach is to start with a wall-to-wall carpet of grass and then drop in a couple of undersized planting beds here and there. A better strategy is to decide where turf serves a purpose, then fill remaining spaces with planting beds, a rain garden, a vegetable garden, an orchard, groundcovers or prairie. Since turf is the highest maintenance component of any landscape and provides the least benefit, less lawn is a good thing.

Design can help in other ways too. Avoiding tight arcs and hard angle corners and instead designing bed edges with gently sweeping curves makes mowing a much easier and efficient process, reducing or eliminating frequent stops and starts. This design approach also greatly reduces the need for trimming.

EDGING OPTIONS

Once you add beds into your landscape, there are a seeming endless number of edging options, but one of the best is simply to dig a shallow v-shape trench along the edge of the bed. This is the least expensive option and allows for easy changes in bed size and shape. Plus, you can mow right over the edge with no concerns for damage to the mower or edging.

While a v-shape trench only temporarily deters grass from spreading into beds, the truth is, that's also the case with jointed stone or brick. Even continuous plastic or metal edging fails to stop grass if it's not properly installed. If you do choose an installed edging material, make sure it is low enough to mow over, eliminating the need for trimming along the edge.

PROTECT TREES WITH MULCH BEDS

Mulch beds around trees eliminate the potential for trunk damage from mowing and trimming—and make the job easier and faster. Better yet, trees can be included in larger planting beds. Since trees and turf have differing needs and compete for resources, they will both be healthier if they're not in direct competition (see article on page 12).

It's not always feasible or reasonable to suggest that homeowners eliminate their lawns entirely, but with some thoughtful design and maintenance practices, an environmentally friendly compromise can certainly be achieved.

Kendall Weyers is the Sustainable Communities Coordinator for the Nebraska Statewide Arboretum and the Nebraska Forest Service.



Integrating beds of native perennials like Purple coneflower (left, *Echinacea purpurea*) and Black-eyed Susan (right, *Rudbeckia fulgida*) into your landscape is one way to reduce the amount of lawn.

GET MORE OUT OF YOUR CHORES

LAWN CHORES CAN BE MADE EASIER, MORE EFFICIENT AND MORE SUSTAINABLE BY FOLLOWING THESE EASY TIPS.

MOWING

Mow as needed, rather than on a preset schedule. That means more in the spring and less in the heat of summer. Try to follow the rule of limiting removal to 1/3 or less of the grass blade length.

Mow high to keep the grass crown cooler, conserve moisture and reduce weed germination.

Leave the clippings to return organic matter and nutrients to the soil as well as eliminate time and effort spent in bagging.

Keep the mower blade sharp to make mowing easier for you and the mower. A sharp blade also leaves a cleaner cut that is more attractive and less susceptible to disease.

WATERING

Water as needed, rather than on a preset schedule. If you have an automatic sprinkler, know how to adjust it to accommodate the drastically differing water needs throughout the season. A rain sensor is a great investment.

Water less frequently but more deeply to encourage a deeper, more resilient root system. If your soil is compacted clay and runoff occurs quickly, cycle the system through twice to allow the water more time to soak in.

Monitor whatever method you are using to make sure sprinklers are operating properly with good coverage.

Consider allowing summer dormancy (although in a summer like 2022, the turf will still need occasional water to survive).

Use grasses with lower water requirements, such as fescue or drought-tolerant buffalo grass.

FERTILIZING

Fertilize less! Unless you've found a market to sell your grass clippings, there's no need to push growth and production of clippings. Over-fertilizing also increases water requirements and potential for disease, while sacrificing healthy root development, making the turf less drought-tolerant. Fertilize late April-early May and September for a healthy and attractive lawn.

Use a slow-release fertilizer and consider organic options like alfalfa meal and compost, which also contribute to a more diverse and beneficial soil ecosystem.

WEED CONTROL

Control as needed, spraying individual weeds or patches rather than the entire lawn. Avoid the weed and feed products that apply a less effective granule over the entire yard.

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Focus on fall weed control, the most effective time to treat most common weeds.

Allow some good weeds for their beneficial characteristics. Clover stays low and adds nitrogen. Plantain and dandelions attract butterflies. Diversity encourages more beneficial insects. Many weeds are tolerant of adverse conditions such as drought and soil compaction.

If weeds are all that will grow in certain areas, repeatedly spraying is a waste of time. Instead find the source of the problem, such as compacted soil or too much shade, and correct or encourage plants tolerant of those conditions.

CREATING A POLYCULTURE LAWN



Let's face it, the lush and weedfree modern lawn desired by most American homeowners is problematic in many ways. The effort to achieve this vision not only requires significant time and resources as we mow, fertilize, spray, irrigate and repeat on a weekly and annual basis, it also often leads to fertilizer pollution in our waterways, herbicide injury to non-target plants, and noise and air pollution from the near constant neighborhood buzzing of mowers, trimmers and blowers.

Perhaps the biggest concern is the impact on municipal water supplies. Lawn irrigation is the single biggest user of municipal drinking water during the summer in Nebraska. This year's drought and its impact on public water supplies across the state should be an alarm bell about the thirsty nature of our turf-dominated landscapes.

EMBRACE BENIGN NEGLECT

The good news is that an ecofriendlier approach to your lawn is not hard to achieve. In fact, it mostly just requires a willingness to relax and embrace some benign neglect. Here we have a great opportunity to let go of the societal pressures driving us to keep up with our neighbors and instead demonstrate that our lawns can be both attractive and environmentally friendly.

Take a deep breath and let it go-

"ahhhh." And now say to yourself: "It's ok if my lawn is not perfect in the eyes of my neighbors, if it has a few weeds, if it has some summer drabness. The world will keep spinning. And I'll know that my lawn is much closer to the kind of perfection I desire with an eye toward pollinator health, resource conservation and peace of mind."

MIX UP YOUR MOWABLE PLANTS

Before the advent of modern broadleaf herbicides, most lawns were a mix of clover, grass and other things that naturally occurred and tolerated mowing—or grazing by animals. The polyculture lawn—or a lawn of mixed species of mowable plants—is gaining momentum, and we can return to it by simply overseeding lawns with Dutch white clover and accepting other lowgrowing plants that come along naturally, like wild violets, trefoil, ground ivy and even knotweed. The white clover is especially beneficial, as it will add nitrogen to the soil, thus reducing the need for fertilizer. Another good plant to add is Siberian squill, a lovely early spring flowering plant that grows from a small bulb and spreads naturally over time.

Another advantage of the polyculture lawn is that it is more droughttolerant and provides food and nectar to pollinators and other wildlife. They also generally require much less mowing. The white clover is



fairly easy to establish within an existing lawn by power raking and overseeding in the spring or as a dormant seeding in late fall.

REMEMBER TO BE A GOOD NEIGHBOR

It should be said here that developing a more relaxed approach to the lawn should not be seen as an excuse to allow our home landscape to look ragged or unkempt. In a neighborhood, where we're counting on each other to maintain property values and exhibit good social decorum, it's especially important for our landscapes to look purposeful and well-managed. Nobody wants to live next to a place that appears weedy and abandoned.

Ecologically beneficial lawns still require regular management, including mowing and weed control. It's also likely that some watering will be required in dry conditions, and fertilizing may still be necessary at times. With that in mind, however, we should also see "good neighborliness" in setting an example for our fellow environmentally conscious citizens to follow. The entire neighborhood will benefit including our pollinator friends—if polyculture lawns catch on.

Justin Evertson is the Green Infrastructure Coordinator for the Nebraska Statewide Arboretum and the Nebraska Forest Service.

GARDENING WITH NATIVES CHOOSE WHAT YOU LIKE AND MAKE IT YOUR OWN

It all began with a Tuesday night date to a Master Gardening class. Thirteen years later, Laurie Zitterkopf and her husband, Mike, are Master Gardeners and Master Naturalists and along the way they've developed a passion for sustainable gardening.

"We've always been interested in being as conscientious as we can about our water usage," said Laurie, who is serving her second three-year term on the board of the Nebraska Statewide Arboretum. "It's important to us to respect the native environment." Over the years, Laurie and her husband have slowly transformed much of the landscape surrounding their home in Gering to focus on native plants. They've also helped Mike's brother, Jeff, plant a garden using NSA Bloom Box plants, and they've recently begun to work on a third property they purchased in 2011.

"My husband calls me a butterfly, because I start here, then I'm over there, then I'm in a completely different place in the yard," said Laurie. "So much catches my attention, I flutter around doing this and that."

<image>

Maximilian sunflower (Helianthus maximiliani)



Aromatic aster (Symphyotrichum oblongifolium)

CHOOSE WHAT YOU LIKE

Laurie and Mike ripped out their front yard and replanted the space with native perennials and shrubs, choosing plants based on whether they will attract butterflies and moths, which Laurie loves, as well as on whether or not she likes the look of the plant.

She planted 'Autumn Brilliance' serviceberry, a rose bush and native flowers. "The plants really like it and keep growing, and the shrubs balance it out and make the space smaller and easier to handle," she said.

She started her brother-in-law's garden with a Bloom Box and later added in some plants from her own garden, including liatris, garden sage, purple poppy mallow, butterfly milkweed and heath aster. Blanket flowers offer a good pop of color and they self-seed, so they come back year after year, said Laurie.

(continued on page 11)



Black swallowtail on Purple coneflower (Echinacea purpurea)

(continued from previous page)

MAKE YOUR GARDEN YOUR OWN

Laurie isn't a purist when it comes to creating gardens. "I completely believe in mixing it up," she said. "I do about 70 percent native and 30 percent nonnative—that's still a very good ratio to support your native environment."

She also believes in creating a garden that's unique to the gardener. For her brother-in-law's garden, for example, she planted parsley, sage, rosemary and thyme in honor of the Simon and Garfunkel song and a nod to Jeff's taste in music.

Recently Laurie and Mike have turned their attention to landscaping 12 rural acres on a third property. They started with native shrubs, planted buffalo grass last spring and have been collecting seeds from their native perennials to plant in the new space. Laurie has even traded some seeds with a neighbor and is experimenting with Fremont's clematis as a result.

"If you garden with natives, and your neighbor does it too, you can create your own mini ecological niche—a corridor for insects and migrating birds, right in your everyday urban neighborhood," said Laurie

Michelle DeRusha is the Communications and Events Coordinator for the Nebraska Statewide Arboretum.

TIPS FOR STARTING A NATIVE GARDEN

- Start small and build. For a new garden, 100-200 square feet is manageable; four-six new species is a good number to learn at a time.
- Prepare your site! Remove, cover or kill existing turf grass and weeds. I prefer the cardboard method: cut everything close to the ground and cover with cardboard; cut holes and plant into cardboard; mulch; let cardboard decompose into the garden.
- Sharpen your spade; it will making digging easier!
- Plant in the fall. Fall planting (September) is easier to establish than spring (May-June) and requires less watering.
- Establishment takes place in the first six weeks after planting. Weeks one and two, water every other day; weeks three and four, water twice a week; weeks five and six water once a week. After establishment, native plants need water only in extended dry periods.
- Make watering as easy as possible so it's not something you avoid. Use a soaker hose, leave the hose stretched out to the garden, whatever it takes (it's only for a few weeks).
- Stay on top of weeding for the first two years, and you'll create a very low-maintenance garden. Let the weeds establish with the plants, and you'll be fighting them for the rest of the life of the garden.

Sarah Buckley is the Sustainable Landscape Specialist for the Nebraska Statewide Arboretum.



SEPARATE IS BEST GIVE TURF GRASS AND TREES THEIR OWN SPACE TO THRIVE



Trees at the Maxwell Arboretum on the University of Nebraska-Lincoln East Campus are mulched expansively to separate them from the grass.

A wise old arborist once told me that when it comes to turf grass and trees, you rarely see them both doing well when growing in the same place. Sometimes the grass is lush and dark green while the tree is struggling to grow leaves on all the branches. Other times, spreading tree canopy casts dense shade on the ground and starves the grass of the light it needs to thrive. It is a delicate balance to meet the needs of both of these landscape plants, and usually the outcome is predetermined by the tree species. You either have a tree like the honey locust, with small foliage that creates dappled shade, or you have a tree that casts a much darker shadow on the ground beneath it. The latter applies to the vast majority of trees.

A BATTLE BELOW GROUND

The conflict between turf and trees is more than a fight for sunlight. The battle below ground is equally tenuous. Turf grasses have root systems that tend to grow in the top 2-4 inches of soil where long, dry periods without supplemental watering create drought stress. Trees, on the other hand, are more resilient in drought due to their deeper root systems, so frequent watering can cause stress by limiting gas exchange in the soil.

Plants breathe above and below ground, so in soils that are constantly moist, trees will grow roots closer to the surface where conditions dry out fastest and provide the carbon dioxide and oxygen they need. These lessthan-ideal conditions mean the tree is more vulnerable to insect and disease issues and less capable of recovery from stress and injury.

Shallow roots can also be damaged by the equipment used to maintain the lawn. Mowers, string trimmers and plug aerators can all wound tree roots, which are then less able to move water and nutrients up to the canopy and can introduce decay into the rest of the tree. That dead branch you see high up in the tree might have been caused by the mower scraping against the base of the tree week after week. Trees do not heal. Instead, they grow over damaged areas as best they can, but damaged tissue is never restored to its original function.

CHOOSE YOUR TREES WISELY

For these reasons, it's critical that you separate your turf and trees whenever you can. With the space you have available, mulch your trees expansively and plant them in groups (like they usually grow in nature). Expand your existing mulch beds around shallow surface roots to avoid damaging them.

If you have a sprinkler system or plan to install one, try to place your sprinkler heads where they won't soak your trees. If you have to plant a tree in a place that gets a lot of moisture, consider a species that can tolerate wetter conditions, such as red maple, sycamore, swamp white oak, overcup oak, bald cypress, black gum, hackberry or American elm.

If you must plant a tree in an expanse of turf grass, there are some species that are better-suited than others, including hackberry, red maple, sycamore, swamp white oak and silver maple. Or you might consider planting a grafted tree. Grafted trees have their above-ground portion attached to a different root system for various benefits, and the root stock will often grow sprouts from the base of the tree (ash, crabapple, fruit trees). While most people choose to remove these sprouts (cut them off, rather than using herbicides), if they are left on the tree, they can provide protection against physical injury from lawn equipment.

Just because your tree has a small mulch ring with lots of grass around it doesn't mean it can't have a friend close by. Small shrubs, perennials or annual flowers can be planted at the base of solitary trees to keep the soil cool and mower damage at bay, as well as add beauty to the area. Let your creativity guide your choice for underplanting, but remember that annual flowers planted in the same spot every year can cause damage to tree roots when planted close to the trunk.

By following these guidelines, you'll be well on your way to creating a landscape where both your lawn and your trees will thrive and provide beauty for years to come.

Graham Herbst is the Omaha and eastern Nebraska Community Forester Specialist for the Nebraska Forest Service.



Orange cosmos (Cosmos sulphureus)



Yard signage helps to educate others about the purpose of your garden.



STARTSMALL NEBRASKA HOMEOWNERS WORK ON TRANSITIONING THEIR LAWNS TO NATIVE GARDENS ONE SMALL STEP AT A TIME.

For those of us with a lot of traditional lawn, the idea of replacing a vast expanse of grass with native plants or other alternatives can feel a bit daunting. If this is the case for you, it often makes sense to start small. Consider taking one section at a time—a corner of your yard or a plot of grass that abuts the street—to transition to a pollinator garden or space for native plants.

CREATE CURB APPEAL

That's exactly what Val Vilott of Omaha did when she purchased her first home in 2020. "I knew I wanted to improve the curb appeal, but I quickly realized I had bought a house with a whole bunch of curb, and that felt a little overwhelming," said Vilott. A friend recommended she check out the Nebraska Statewide Arboretum's Bloom Box program, which provides a ready-for-planting selection of native perennials, along with a landscape design, step-by-step instructions and fact cards about each plant.

Vilott replaced the grassy space between the sidewalk and the curb along the side of her house with three Bloom Box plantings between Fall 2021 and Fall 2022. "It was so easy and user-friendly, after the first Bloom Box, I decided to do it again and then again," said Vilott. "It's worked really well, because each Bloom Box comes with a landscape plan, so it gives your garden a sense of cohesion and helps you lay out the garden."

Vilott's streetside garden features Butterfly milkweed, coneflower, mountain mint and other droughttolerant plants. This September she was pleased to spot two monarch caterpillars fattening up on her butterfly milkweed. "I love having this garden," she said. "It supports native ecosystems, it's good for the pollinators and it does right by the environment."

BE CONSIDERATE

Homeowner Tara Anderson of Lincoln took a more dramatic approach to her front yard when she moved in three years ago. The first summer she dug up half of her lawn in front of her bungalow to plant a vegetable garden, and the following spring she planted the opposite half with native plants from an NSA Bloom Box. Mountain mint, Butterfly milkweed, Blue sage, coneflower and 'Summer Sunrise' switchgrass have all thrived in the space that was once traditional grass.

Anderson also noted that before she dug in, she gave her neighbors a head's up about her plans to replace her front lawn with vegetables and native plants. "I just wanted to be considerate and let them know what was going on," she said. Her neighbors' response was positive, and Anderson noticed that this summer, her neighbor across the street added a raised bed with cucumbers and other vegetables in their front yard.

"It's smart to communicate your plans to your neighbors in advance, even if you plan to replace just a small part of your lawn with native plants," said NSA Sustainable Landscape Specialist Sarah Buckley. "Signage helps too, so people passing by know that your garden is pollinator-friendly and helping to support the environment."

Anderson is pleased with her nontraditional front yard, which was still producing tomatoes, squash and beautiful blooms in late September. "The Bloom Box made it so easy by pairing plants that will work well together and then giving me a layout of where to place each plant," she said. "It really helped with my decision fatigue. I have so many things in my life to think about it, and it was nice to have one less thing."

Michelle DeRusha is the Communications and Events Coordinator for the Nebraska Statewide Arboretum.

Yellow coneflower (Echinacea paradoxa)



Monarch caterpillar on Swamp milkweed (Asclepias incarnata)



Mountain mint (Pycnanthemum tenuifolium)

EVERYTHING YOU NEED TO KNOW ABOUT BLOOM BOX

WHY IS A BLOOM BOX A GOOD INVESTMENT?

Each Bloom Box provides a variety of spring-to-fall blooms, so you'll offer a consistent food source for pollinators all season long.

Each Bloom Box offers a lot of diversity, so your garden will attract the most pollinators with many easy-to-find flowers.

All of our Bloom Boxes feature regional natives, grown in Nebraska to support native pollinators.

WHAT'S IN A BLOOM BOX?

12-54 live plants in 3-inch-deep pots, chosen just for you.

Expert advice on how to start with prep, planting and care.

A plant-by-color plan to show you what goes where.

Plant cards with facts on each species and its pollinator partners.

A yard sign to mark your new pollinator habitat. (*not included in Bloom Box mini)

Facebook access to our Bloom Box Gardener Group.

HOW CAN I SIGN UP?

Sign-ups for the spring Bloom Box open March 1 and close on March 31 (or when we have reached our spring capacity of 125 gardens). Plants will be ready for pickup or shipping in May. We also offer a fall Bloom Box with sign-ups in July.

Email Sarah Buckley with any questions or to request a reminder email on opening signup day: sarah.buckley@ unl.edu. Spring planting fills up quickly so be ready to order when sign-ups open on March 1.



Monarch butterfly on Blazing Star liatris (*Liatris spicata*)

Nodding onion (Allium cernuum)

Visitors smelling the Mountain mint in Tara Anderson's Bloom Box garden in Lincoln

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