

Johnson County Planning Development Sustainability Pocket Prairie Program

"It seems to me that the natural world is the greatest source of excitement; the greatest source of visual beauty; the greatest source of intellectual interest."
David Attenborough



Aldo Leopold (1887-1948)

A Sand County Almanac

"All ethics so far evolved rest upon a single premise; that the individual is a member of a community of interdependent parts. The land ethic simply enlarges the boundaries of the community to include soils, waters, plants, and animals, or collectively . . . A thing is right when it tends to preserve the integrity, stability and beauty of the biotic community. It is wrong when it tends otherwise."

Johnson County Pocket Prairie Program

Growing TRENDS

➤ Why

- Iowa History
- Changes to the Land

➤ Benefits

- What You Plant Matters

➤ How

- Location/Site Preparation
- Native Plants
- Design/Layout



Prairies Protected Iowa's Land

- At the time of settlement in the mid-1800s, prairie covered 85% of the land that became Iowa; the rest of the state was tree-covered.
- Today, 93% of Iowa's land is dedicated solely to crops — making the state one of the most altered landscapes on earth.
- As Iowa developed land, uses changed. Cities were developed, roads were built and critical habitat diminished.
- Today, less than 1/100 of 1% of the original prairie remains. In the last 20 years, farm fences have all but disappeared from the landscape as farm fields expand to meet the road.



<https://tallgrassprairiecenter.org/>

Cornelia F. Mutel, editor. *Tending Iowa's Land: Pathways to a Sustainable Future*. University of Iowa Press, Iowa City. 2022.

Sage, Leland L. *A History of Iowa*. The Iowa State University Press, Ames, Iowa. 1974.

Importance of Prairies and Natural Gardens

- *What you plant matters.*
- The U.S. has lost over 3 billion birds since 1970 (first Earth Day) due to loss of habitat.
- The global population of arthropods — chiefly insects has declined 45 percent since preindustrial times.
- Introduced plant species (cultivars/non-natives) yield on average 68% less food for insects than natives.
- 86% of the land east of the Mississippi River is privately-owned — a large percentage is either under cultivation for food or planted in a monoculture lawn.



Prairieecologist.com; Photo credit/Chris Helzer, Prairie Ecologist

Why Native?

- ▶ Our parks and natural areas are too small to sustain the biodiversity that humanity needs — as a result wildlife populations that live in natural areas and benefit all of us are shrinking.
- ▶ 2/3 of the Earth's wildlife has disappeared.
- ▶ The U.S. has 135 million acres devoted to typical home landscapes.
- ▶ Only 3.6% of U.S. land is in National Parks; only 2% is federally protected.
 - ▶ 2 million acres of golf courses the size of Delaware and Rhode Island.
 - ▶ Pavement covers an area larger than Ohio.
 - ▶ U.S. development claims an area the size of a football field every 30 seconds — 2,880 football-sized fields are developed every day.



Native Perennials Support & Improve Soil Health

- Soil is Iowa's most valuable asset.
- Healthy soil must have microorganisms.
- Diverse, native, perennial vegetation is ideal for any landscape and backyard wildlife habitats.
- Under the Earth's surface is a vast underground kingdom of microorganisms that are critical to human life.
- Soil has immense biodiversity — nearly 25% of species on Earth live underground!
- Soil provides services and functions that are essential for life. Soil microbes feed off living or dead plants for their food.

<https://www.asla.org/nativeplantssavemoney.aspx>

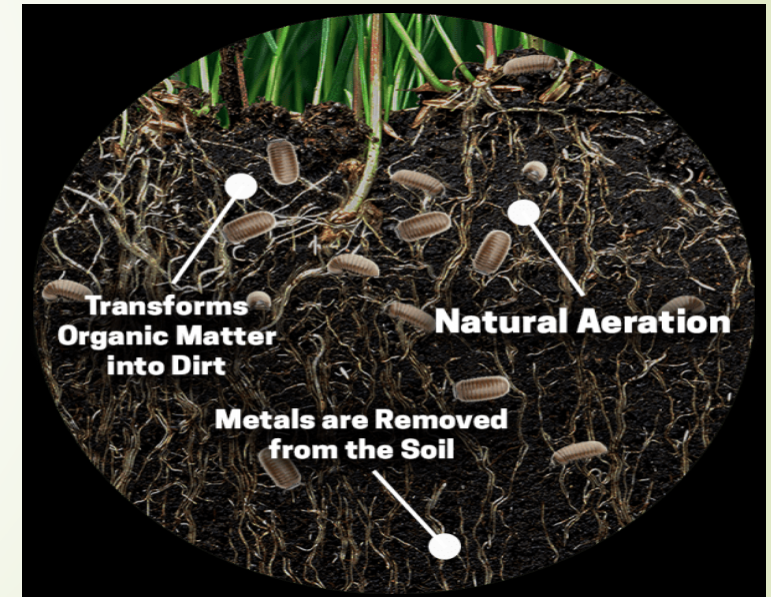
<https://johnsoncountyiowa.gov/soilhealth>

<https://naturalresources.extension.iastate.edu/wildlife/landscaping-wildlife>

Ohlson, Kristin. *The Soil Will Save Us*. Rodale, New York, NY. 2014.

Native Perennials Support & Improve Soil Health

- Soil health involves treating the soil as the living ecosystem — which includes continually returning organic matter to the soil.
- Soil is the most underappreciated resource in the natural world. As soil health is depleted, so is its ability to provide vital services and functions.
- Microorganisms help clean the environment. They breakdown harmful substances, decompose dead and decaying matter from plants and animals converting the material into simple substances that feed other plants and animals.



Pill & Sow bugs — Roly-polies facilitate decomposition. They have the ability to remove metal contamination from the soil.

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<https://www.desmoinesregister.com/story/money/agriculture/2023/09/13/new-research-shows-iowa-losing-soil-fertility-organic-carbon-since-farming-began-climate-change/>

Native Perennials Support Local Ecosystems

- Native plants play a crucial role in supporting local ecosystems above ground by providing habitat for native insects, birds, and other wildlife.



“When native plants disappear, the insects disappear, impoverishing the food source for birds and other animals.”

Doug Tallamy

<https://www.asla.org/nativeplantssavemoney.aspx>

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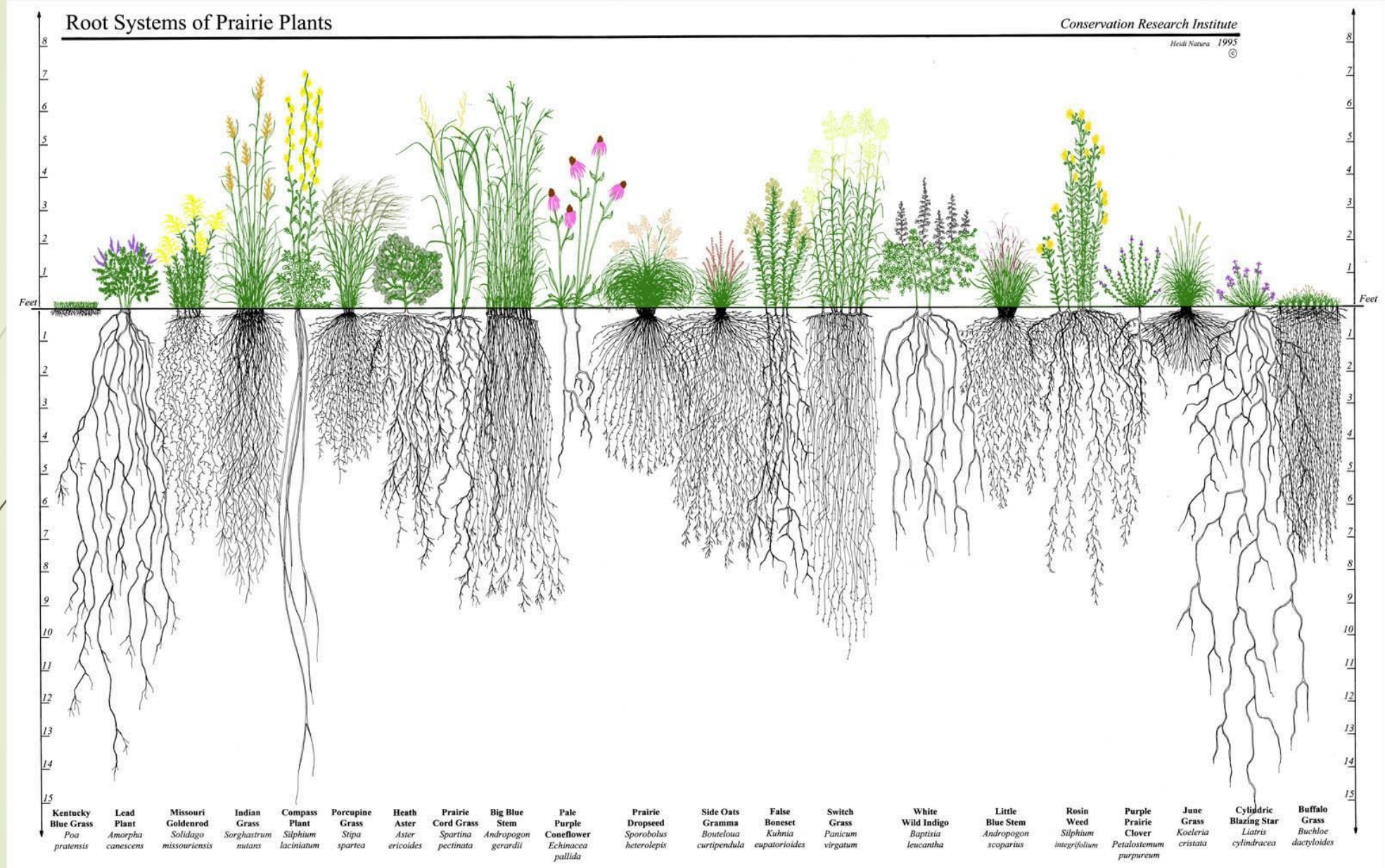
<https://www.desmoinesregister.com/story/money/agriculture/2023/09/13/new-research-shows-iowa-losing-soil-fertility-organic-carbon-since-farming-began-climate-change>

Native Perennials Adapt to Localities

- Plants native to an area establish quickly and are naturally hardy — they grow in harmony with the environment, the soil, the water supply, the varying weather throughout all the seasons, and other native companions.
- Their root systems are deep, acclimated to the soil, and adjust to average precipitation. Their stems and leaves handle harsh sun and winds.
- When native plants thrive in their original environment, they create a natural habitat for wildlife that is beneficial and adds life to your landscape — pollinators — bees, birds, butterflies, and small animals, warm and cold-blooded, and microscopic organisms live in the soil.
- Over thousands of years native plants have adapted to the local climate, soil conditions, and wildlife interactions, making them well-suited for the local environment.



<https://johnsoncountyiowa.gov/soilhealth>
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Vogt, Benjamin. *Prairie Up: An Introduction to Natural Garden Design*.
<https://www.asla.org/nativeplantssavemoney.aspx>



Native Perennials Support Clean Water & Air

- The deep roots of native plants hold the soil during heavy rainfall, increase water filtration and reduce nutrient pollution runoff that goes into our rivers and streams.
- The roots of plants are varied to form networks that absorb moisture during dry periods. Each year some of the plant roots die, allowing large quantities of organic matter/nutrients to be added to the soil as they decompose, creating rich and fertile soil and feeding microorganisms that live in the soil.
- The roots anchor the plant in the soil as plants reach for sunlight.
- Store excess food for future needs.
- Fix nitrogen in the soil,
- Increase bio-productivity, by absorbing and holding toxins and heavy metals, carbon sequestration,
- Prevent erosion — fibrous roots hold the soil and absorb more runoff (as in a rain garden),

Native Perennials Benefits continued

- ▶ Native plants require less watering, fertilizer, and pesticides, prevent run-off, improve air quality by reducing air pollution because they reduce the need for mowers and other equipment.
- ▶ The deep root systems of native plants help prevent erosion, increase the soil's capacity to store water, reduce runoff and store excess carbon in the soil.



<https://johnsoncountyiowa.gov/soilhealth>
Vogt, Benjamin. *Prairie Up: An Introduction to Natural Garden Design*.
<https://www.asla.org/nativeplantssavemoney.aspx>

Prairieecologist.com; Photo credit/Chris Helzer, Prairie Ecologist
©Chris Helzer Nature Photography

Native grasses and plants have longer roots, are more equipped for the environment in which we live and require less water and maintenance. Most importantly, they provide the appropriate and necessary sustenance to native animals and insects.



New Approach to Conservation

- Ask people to:
 - Reduce the size of the lawn; Plant more natives
 - Add keystone plants that support more species
 - Plant natives
 - Remove invasive species
 - Avoid harsh chemicals



Tallamy, Doug. *What's the Rush? The Solution to Biodiversity Crisis*. <https://homegrownnationalpark.org/videos/>
Vogt, Benjamin. *Prairie Up: An Introduction to Natural Garden Design*.
<https://www.asla.org/nativeplantssavemoney.aspx>
<https://homegrownnationalpark.org/>
<https://www.pennington.com/all-products/grass-seed/resources/the-history-of-the-american-lawn>

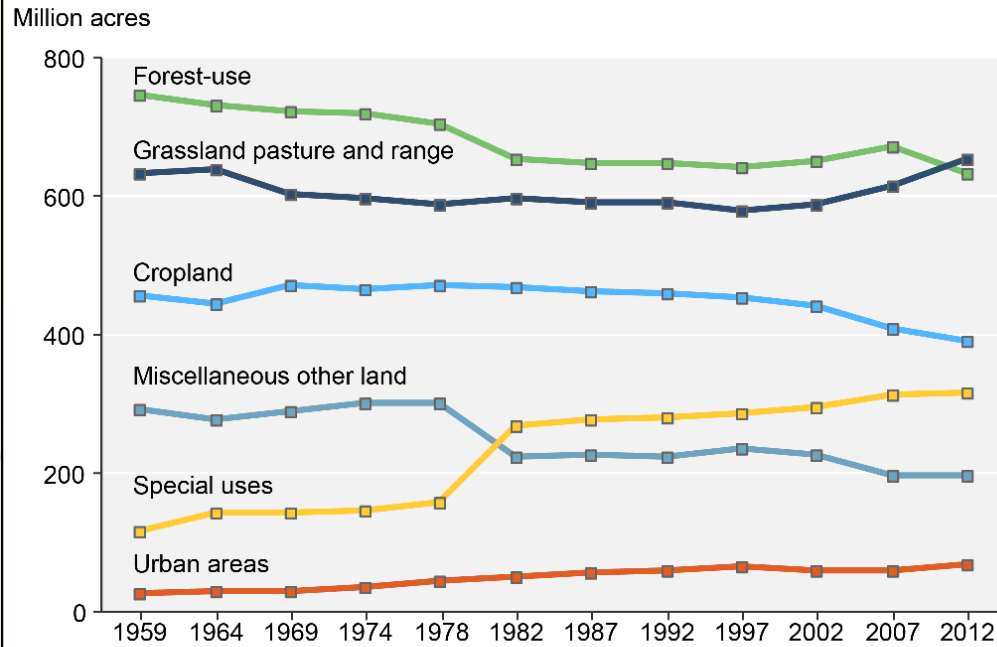
New Approach to Conservation

- One landscape does nothing — lawns
- Homegrown National Park goals – preserving 30% of the U.S. by 2030
- Make common knowledge — that the landscape has four ecological responsibilities
 - Support local food webs
 - Sequester carbon
 - Clean and manage the watershed
 - Support pollinators



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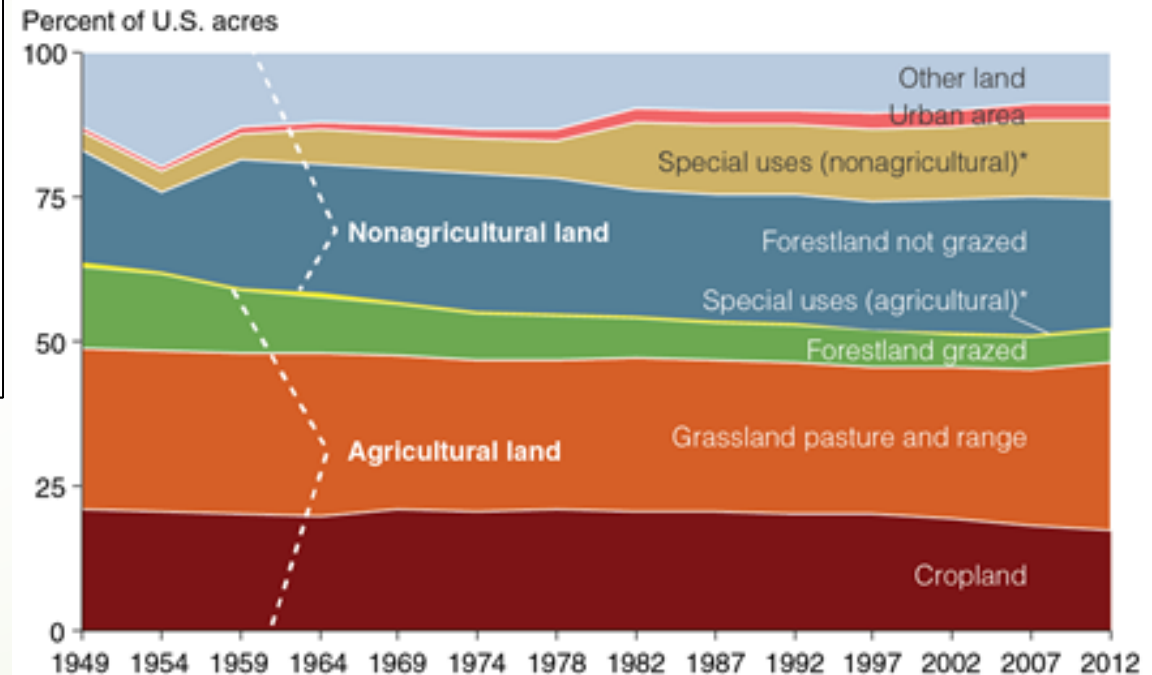
Major uses of land in the United States, 1959-2012



Source: USDA, Economic Research Service using data from the *Major Land Uses* data product; see sources in Bigelow et al., 2017.

Land Use is Changing

Share of land used for agricultural purposes has decreased 11 percent since 1949



*Special uses include rural parks and wilderness areas, rural transportation areas, defense/industrial lands (all nonagricultural uses), and farmsteads/farm roads (agricultural uses). Source: USDA, Economic Research Service calculations using data from USDA, U.S. Department of the Interior, U.S. Department of Commerce, and other sources.

New Approach to Conservation

- ▶ Plant choice matters — choose keystone plants
 - ▶ Contribute energy – oak trees, native perennials
 - ▶ Non-contributors – cultivars/non-native plants
 - ▶ Detractors – nonnatives/invasive species push out native contributors



Wild Bergamot *Monarda fistulosa*

New Approach to Conservation

“Insects are the little things that run the world.”

Biologist Edward O. Wilson (1928-2021)

- 90% of insects only feed on host plants that they share evolutionary history.
- 80-90% of plants and flowers are pollinated by animals (birds, butterflies, insects).



Tallamy, Doug. *What's the Rush? The Solution to Biodiversity Crisis*. <https://homegrownnationalpark.org/videos/>
<https://www.smithsonianmag.com/science-nature/meet-ecologist-who-wants-unleash-wild-backyard-180974372/>
Vogt, Benjamin. *Prairie Up: An Introduction to Natural Garden Design*.

Other Ways to Help Wildlife



- ▶ Light pollution kills insects and impacts wildlife migration – easy solution replace white bulbs with yellow bulbs
- ▶ Mosquito foggers kills pollinators. To control mosquitos kill the larva stage using a bucket of water and mosquito dunk (from hardware store).

Every U.S. roadway could look like this



NATIVES, CULTIVARS, AND NATIVARS WHAT ARE THEY?

→ NATIVES

Occur within a region without human intervention. Insects and other animals have co-evolved with native plants for thousands of years. **The nutritional value of foliage, pollen, nectar, fruits, and seeds of straight native species is known.**



Purple coneflower - *Echinacea purpurea*

Non-native chrysanthemum cultivar



CULTIVARS ←

Plants selected for a certain trait (for example, color, shape, size, bloom times, or stronger stems) through intentional breeding, including hybridization. Derived from non-native or native plants. May not produce nectar or seeds, and may not support native butterflies, birds, and other wildlife.

→ NATIVARS

Popular name for cultivars of native plants, resulting from human selection for a specific plant trait(s) desired in a garden or food production setting. Some nativars have no nectar or pollen, and sterile seeds.



Coneflower nativar - *Echinacea* 'Carrot Cake'



WHY CHOOSE NATIVE PLANTS?

To ensure that you are supporting wildlife in your landscape, choose straight native species. The Grow Native! program promotes the use of natives for their known ecological value. Nativars bred for dark foliage or double petals, for example, may be less nutritious for insect foragers you are hoping to attract with a pollinator garden. While some nativars may have high ecological value, too, human-based selection of plant traits may have unknown consequences.



Native bumble bees foraging on native smooth hydrangea (*Hydrangea arborescens*), left, and eastern bluebird with caterpillar, right. (Photo credits: Ed Spevak; MDC)

In the lower Midwest, look for Grow Native! plant tags, which indicate the plants you've selected are native. If you don't see a Grow Native! tag, ask whether a plant is the straight native species or a cultivar and for information about the plant's origins. Some natives may appear similar to naturally occurring plants, and there can also be natural variation within a straight species. Also look for the botanical name on the plant label. Cultivars, including nativars, are typically labeled with the cultivar name, too -- e.g., 'Hello Yellow.'



**Learn more at
grownative.org**

How We Act Determines Nature

- Types of Plant Kits — have been selected by location to offer best opportunities for successes
 - Full Sun Pocket Mix (**Summer Sun**): This pocket requires 6 hours or more of direct sunlight.
 - Part Sun Pocket Mix (**Speckled Shade**): This pocket requires 4 hours or less of direct sunlight.
 - Wet Pocket Mix (**Drizzle Drazzle**): This pocket requires of direct sunlight (preferably morning sun).
- Sunny — minimum of 6 hours of sun
- Air movement is critical — poor air circulation can lead to fungal disease
- Avoid areas with heavy weed growth — especially perennial noxious weeds

Summer Sun

Black-Eyed Susan (*Rudbeckia hirta*) is a biennial that blooms and completes its life cycle in its second year with a brilliant floral display. Transplants will bloom the year they are planted. Easy to grow and **easily self-sows** on open soil. The black-eyed Susan has a prolonged bloom time to attract butterflies and other pollinators. The late-season seed heads attract finches and other birds. Drought-tolerant, the *Rudbeckia* tolerates heat, drought and a wide range of soils, but does not like poorly drained, wet soils.



Butterfly Weed (*Asclepias tuberosa*) is a popular milkweed. Butterfly Weed is an important host plant for Monarch and Queen butterflies. This milkweed lacks the typical milky sap. In an ideal location, a mature Butterfly weed can become a very showy specimen, with multiple flowering stems spreading across a two-foot-tall plant. Mature plants have a deep tap root that extends a foot or more. They can be transplanted if dug carefully, during dormancy. This rugged species thrives in sunny locations, in dry sandy soil or well-drained loam.



Little Bluestem (*Schizachyrium scoparium*, formerly *Andropogon scoparius*) is a native grass prized for its blue-green leaf color and upright form. The foliage provides excellent color in all seasons. Densely mounded, Little Bluestem reaches a height of 3 feet by autumn, when it turns a striking reddish-bronze, bearing tufted seeds. The clumps can withstand snow and rain, allowing the reddish grass stems to remain upright most of the winter. Excellent in dry sandy soils, it combines well with all prairie flowers. It is not recommended for damp sites or heavy clay soils. Little Bluestem is a host plant for numerous butterflies.

Pale Purple Coneflower (*Echinacea pallida*) blooms in early summer and is a favorite nectar source for pollinators. Late in summer, the large seed heads attract Goldfinches and other



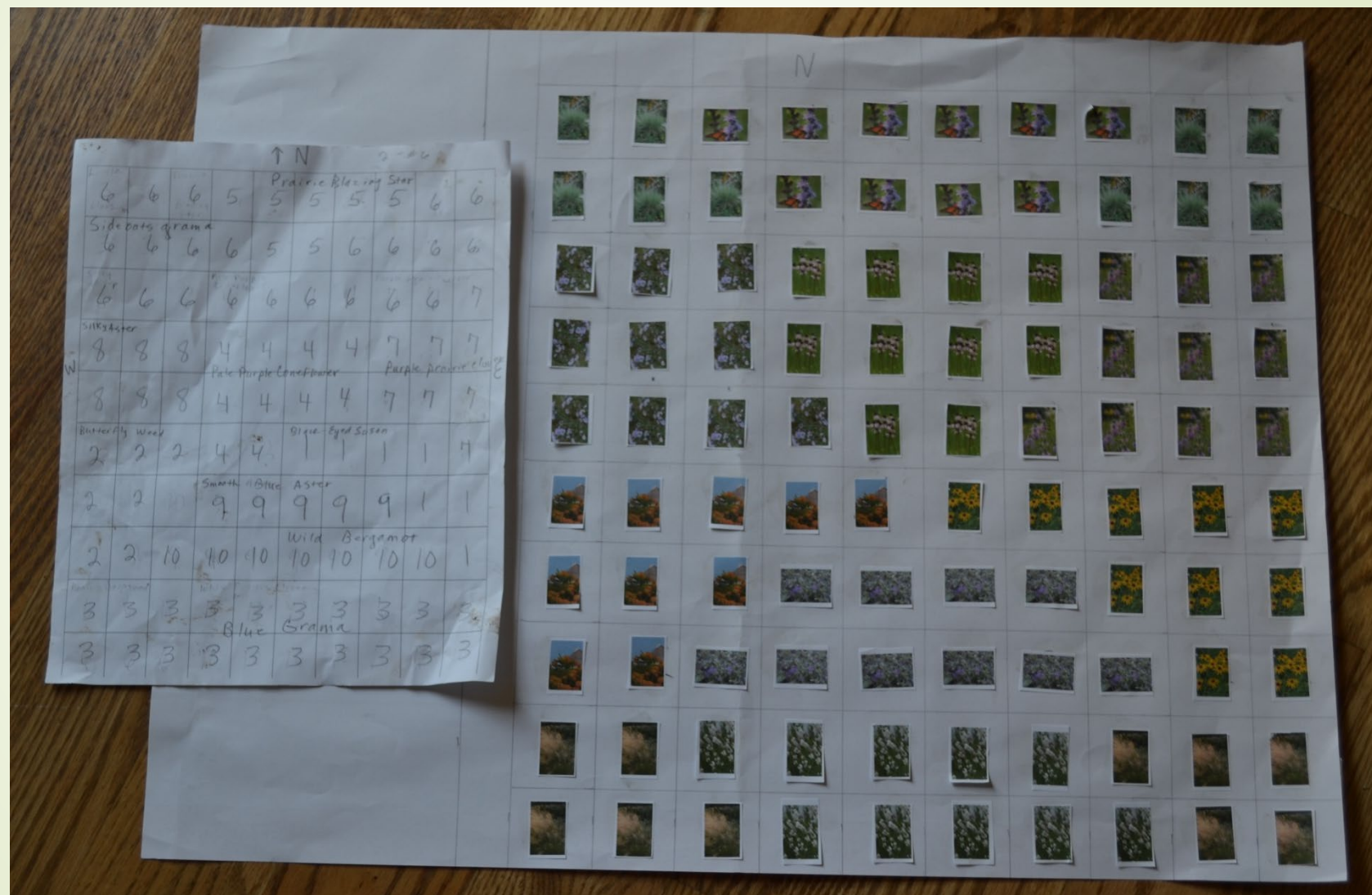
Plant characteristics

	Location	Soil	Moisture	Bloom Time	Height	Root	Color	0-2 ft	3 ft	4 ft
Summer Sun*										
Black-eyed Susan	Full sun/partial	Clay, loam, sand	Dry, medium, moist	June-September	1-3 feet	Fibrous	Yellow			
Butterfly weed	Full sun	Loam, sand	Dry, medium	June-August	2 feet	Taproot	Orange			
Silky aster	Full sun/partial	Loam	Dry, medium	August-September	1-2 feet	Fibrous	Lavender			
Little bluestem	Full sun	Loam, sand	Dry, medium	August-October	2-3 feet	Fibrous	Green, blue red			
Pale purple coneflower	Full sun	Clay, loam, sand	Dry, medium	June-July	3-5 feet	Taproot	Lavender-pink			
Prairie blazing star	Full sun	Clay, loam, sand	Medium, moist	July-August	3-5 feet	Corm	Lavender, pink, purple			
Prairie dropseed	Full sun	Loam, sand	Dry, medium	August-September	2-4 feet	Fibrous	Green, cream			
Purple prairie clover	Full sun	Clay, loam, sand	Dry, medium	July-August	1-2 feet	Taproot	Lavender, purple			
Smooth blue aster	Full sun	Clay, loam, sand	Dry, medium	August-October	2-4 feet	Fibrous	Lavender, blue			
White prairie clover	Full sun	Loam, sand	Dry, medium	July-August	1-2 feet	Taproot	White			

Speckled Shade*										
Culver's root	Full sun/partial shade	Clay, loam, sand	Medium, moist	July-August	3-6 feet	Fibrous	White			
Large flowered primrose	Full sun/partial shade	Loam, sand	Medium, well-drained	April- May	3-5 feet	Taproot	Yellow, pink, orange			
Little bluestem	Full sun	Loam, sand	Dry, medium	August-October	2-3 feet	Fibrous	Green, blue red			
Prairie blazing star	Full sun	Clay, loam, sand	Medium, moist	July-August	3-5 feet	Corm	Lavender, pink, purple			
Prairie dropseed	Full sun	Loam, sand	Dry, medium	August-September	2-4 feet	Fibrous	Green, cream			
Prairie alumroot	Full sun/partial shade	Clay, loam, sand	Dry, medium, well-drained	May-July	2-4 feet	Fibrous	Pale green			
Purple prairie clover	Full sun	Clay, loam, sand	Dry, medium	July-August	1-2 feet	Taproot	Lavender, purple			
Prairie sundrops	Full sun/partial shade	Clay	Medium	May-July	1-1.5 feet	Rhizomes	Bright yellow			
Smooth blue aster	Full sun	Clay, loam, sand	Dry, medium	August-October	2-4 feet	Fibrous	Lavender, blue			
Sweet black-eyed Susan	Full sun/partial shade	Clay, loam, sand	Dry, medium, moist	June-September	1-3 feet	Fibrous	Yellow			
Common Oak Sedge	Partial to full shade	Clay, loam, sand	Dry, medium	April-May	6-12 inches	Rhizomes	White, yellow			
Curly Wood Sedge	Partial sun, shade	Loam, sand	Dry, medium, medium-wet	June	12 inches	Fibrous	Green to rosy pink			

Drizzle Dazzle*										
Blue flag iris	Full sun/partial shade	Clay	Moist	May-June	2-3 feet	Rhizomes	Violet-Blue			
Bur sedge	Part sun/partial shade	Loam, silt, sand	Moist, well-drained	May-July	2-3 feet	Rhizomes	Pale green			
Cardinal flower	Full sun/partial shade	Loam, sand	Moist to wet	July-September	2-4 feet	Rhizomes	Red			
Cedar Sedge	Part shade	Dry	Loam, clay, well-drained	March-May	6-12 inches	Fibrous				
Common rush	Full sun	Loam, clay-loam, gravel	Medium wet	May-July	8-24 inches	Fibrous	Greenish			
Dudley's rush	Full sun	Loam, clay-loam, gravel	Medium wet	May-July	8-24 inches	Fibrous	Greenish			
Fox sedge	Full sun/partial shade		Wet, medium	June-July	3 feet	Fibrous				
Golden Alexander	Full sun/partial shade	Clay, loam, sand	Medium, moist, wet	May-June	1-3 feet	Fibrous	Yellow			
Great blue lobelia	Full sun/partial shade	Clay, loam, sand	Medium, moist	July-September	1-4 feet	Fibrous	Blue			
Sand coreopsis	Full sun, partial shade, shade	Loam, sand	Dry, medium	May-August	2 feet	Fibrous/Rhizome	Yellow			
Culver's Root	Full sun/partial shade	Clay, loam, sand	Medium, moist	July-August	3-6 feet	Fibrous	White			
Prairie Sundrops	Full sun/partial shade	Clay	Medium	May-July	1-1.5 feet	Rhizomes	Bright yellow			

*Plants may change due to availability



Location, Location, Location

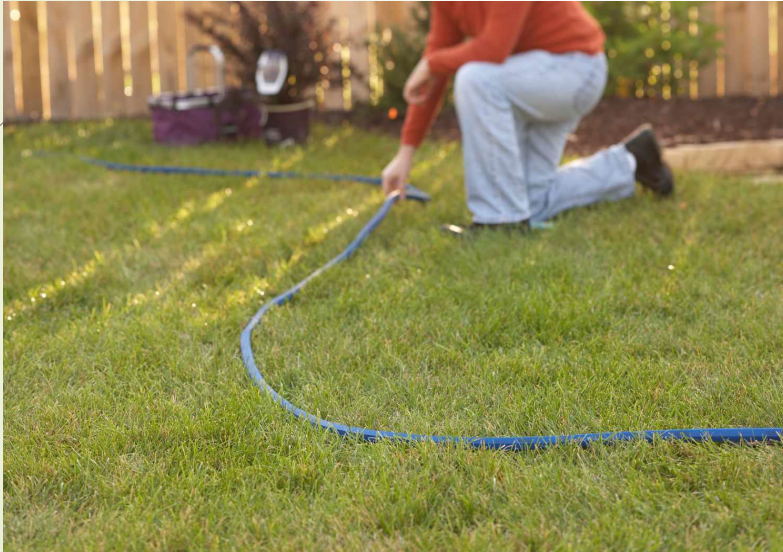
- Good site locations are areas presently in turf, cornfields, soybean fields, and alfalfa fields. Residual herbicides that may have been applied to agricultural fields in previous years may linger. When in doubt about herbicide activity test the soil.
- Beware of areas with adjacent weedy vegetation that cannot be eliminated or controlled. Although an established prairie meadow is resistant to invasion by most weeds, three to four years of growth is required for full development. During these first few years, weed seeds can blow onto the site and establish.
- Rhizome weeds can creep onto the site from adjacent areas. If herbaceous perennial weeds are located near a new site, they should be mowed before they set seed, or completely eliminated and replaced with non-invasive plants.

Site Preparation Determines Success

- Preparing the planting site is a significant deciding factor in your prairie's success and your on-going stewardship requirements. You need to spend the necessary time to build the right foundation for your native plants to thrive.
- Has the area been planted before?
 - The selected site must be currently maintained.
 - ROW cannot be used as a Pocket Prairie site.
 - Do not locate over tree roots or under a large shade tree.

Site Preparation continued

- Different methods of preparing a site for seeding to a prairie.
- Outline the selected area, curves are easier to mow around – use a hose, rope or spray paint to identify your area.



Site Preparation continued

- Remove all existing plant material to make room for native prairie plants.
 - Employ a smother method using cardboard, layers of newspapers or use a tarp instead of herbicides. Be certain to anchor the material with heavy objects, i.e. bricks, etc.
 - Use a sod-cutter to remove lawns with no weeds.
- Loosen the soil in the spring but don't go too deep — some seeds can remain viable for years, even decades — deep rototilling may activate seed growth.



Smother turf using cardboard or paper.

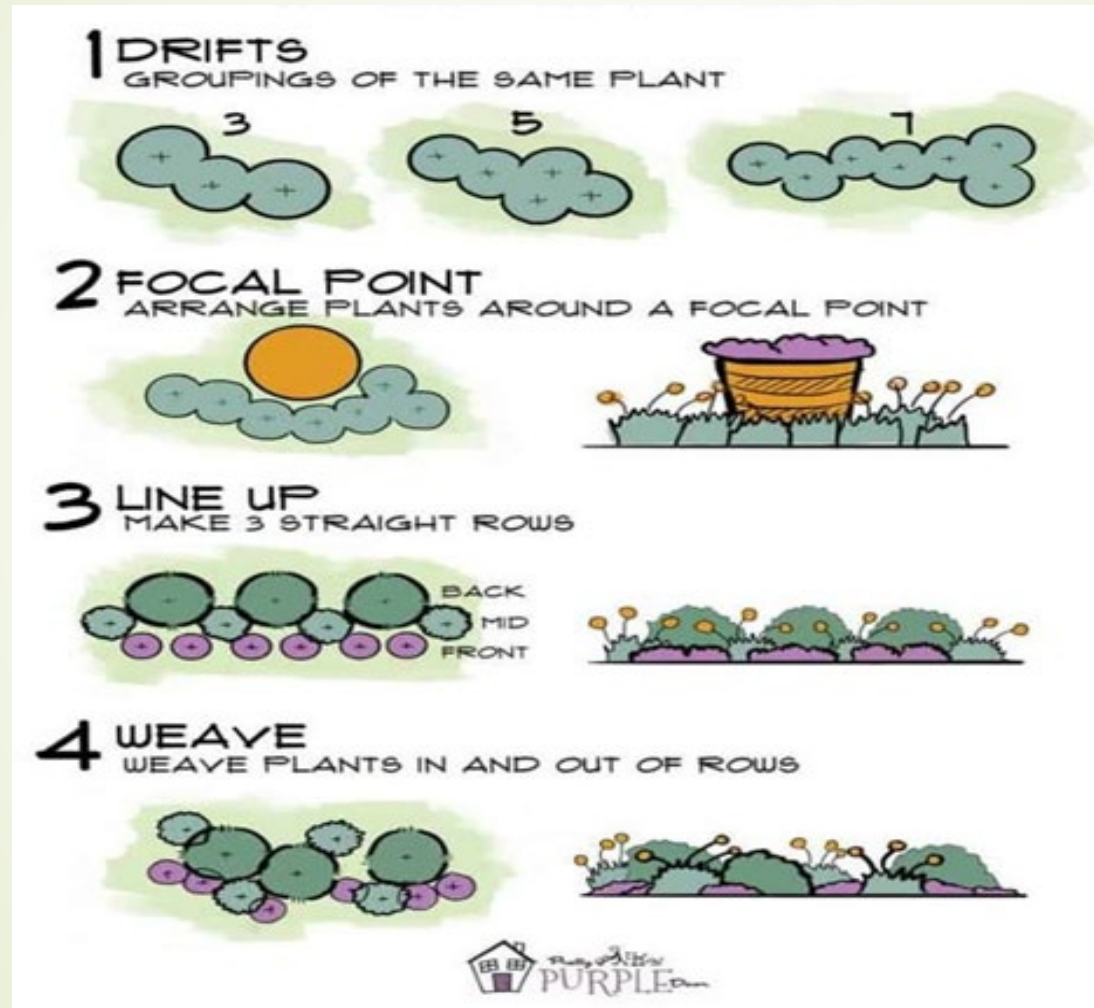


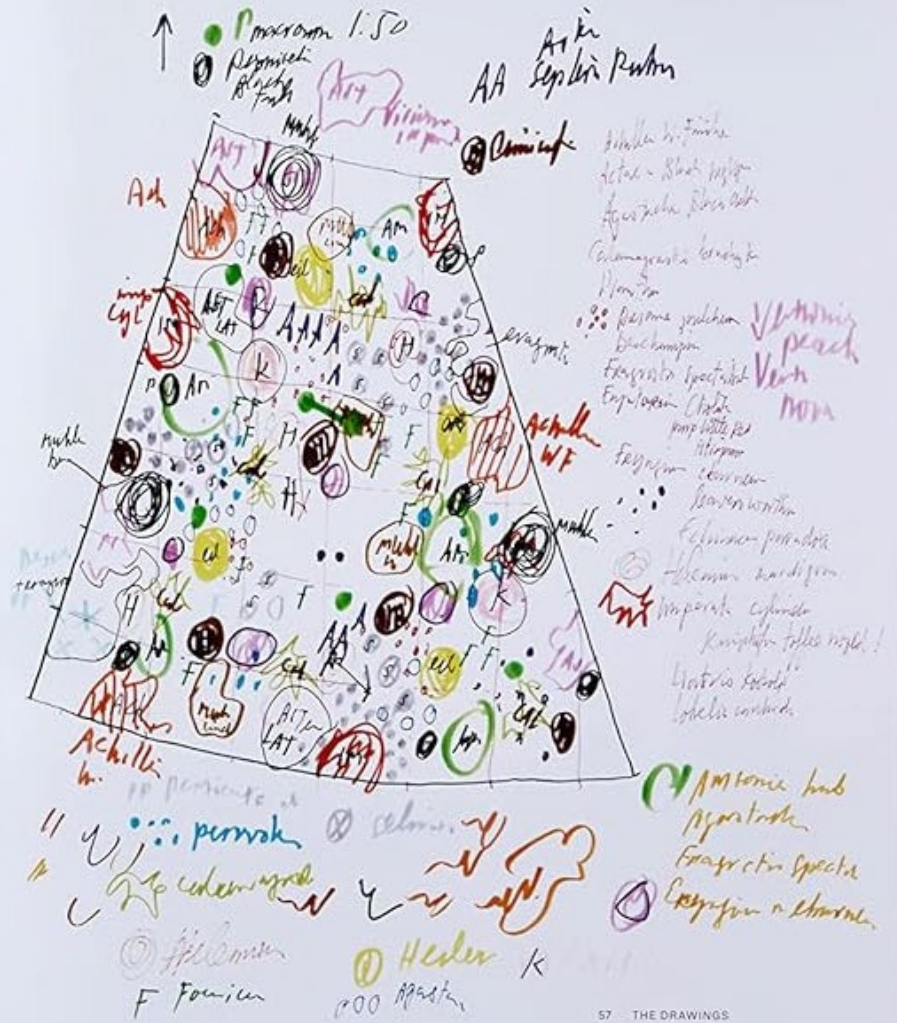
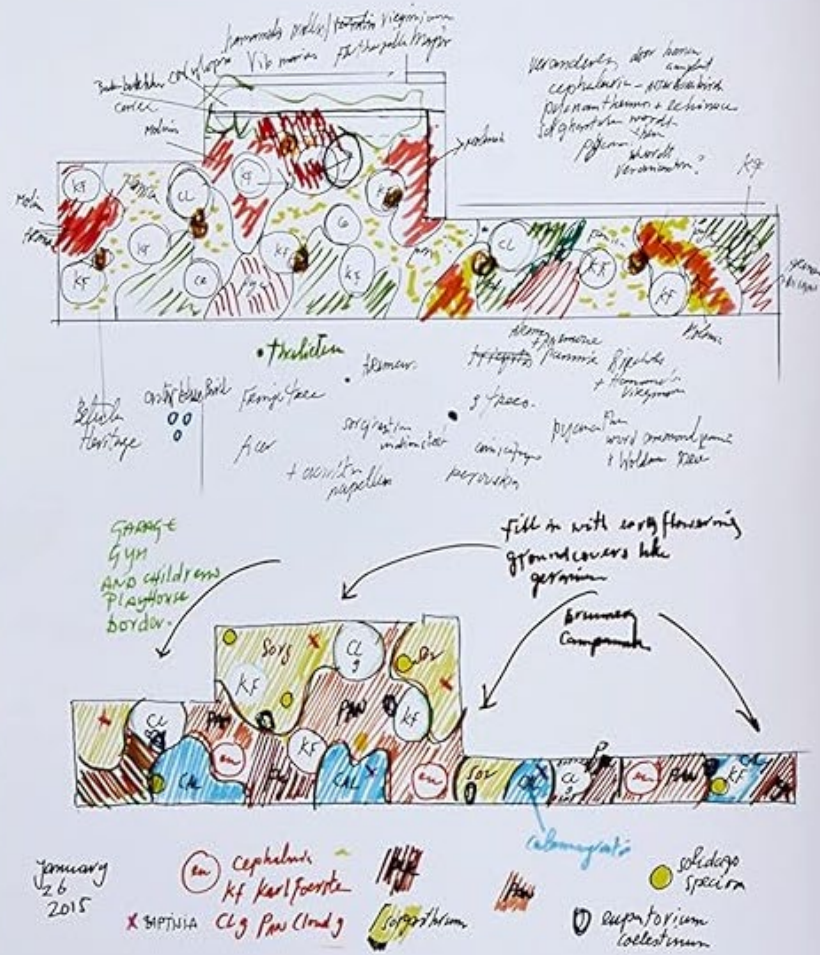
A sod-cutter removes grass.

Design & Layout

- Layout depends on your property and the location of your pocket prairie — a 10 by 10 foot garden plot is manageable
- Plants will be offered as plugs that can be planted individually — one every foot — or in groups — two or three every two feet
- Start with a focal point – a tree, shrub, garden art, or even architectural feature.
- Place plants in groups of the same species for visual effect.
- Use odd numbers – plant clumps of three, five, or seven plants.
- Include organic and geometric shapes such as curves and sweeps.
- Remember to place taller plants in the middle or back of the bed.

Design & Layout





Design Inspiration

- ▶ Native plants add splendor to your landscape. A native garden can be a formal or informal space designed with harmony, unity, and interest. Native plants provide a wealth of colors, textures, varying heights, and bloom times, resulting in a stunning display over multiple seasons.
- ▶ The long-term upkeep of native plants is less costly than turf grass, and takes less time to maintain.



Iowa City Lawn Love

https://www.youtube.com/results?search_query=iowa+city+lawn+love

Vogt, Benjamin. *Prairie Up: An Introduction to Natural Garden Design*.
<https://www.asla.org/nativeplantssavemoney.aspx>

You can make a difference



Post Planting Management

- ▶ Prairies are low maintenance, but not “no maintenance.”
- ▶ Years 1-2: Control the weeds carefully.
- ▶ Year 3: Natives begin to take over and outperform the weeds.



Post Planting Management

- At the beginning of the third season, the native plants can be cut to 6 inches in late March or early April.
- Trimming favors native “warm season” prairie plants over “cool season” weeds (quackgrass). Rapid soil warming encourages the prairie plants over the weeds.



Cardigan Park, Iowa City

Post Planting Management

- Most prairie plants are dormant or just beginning growth and are unharmed by spring trimming. Cool-season weeds will be actively growing at this time and will be significantly damaged. The advantage goes to the prairie plants.
- The secret to success with prairie areas is to establish the native plants across the entire area, so that they colonize the soil completely. Once the prairie sod is established, usually by the fourth or fifth year, weeds have no openings into which they can invade.
- Let the plants do the work for you!

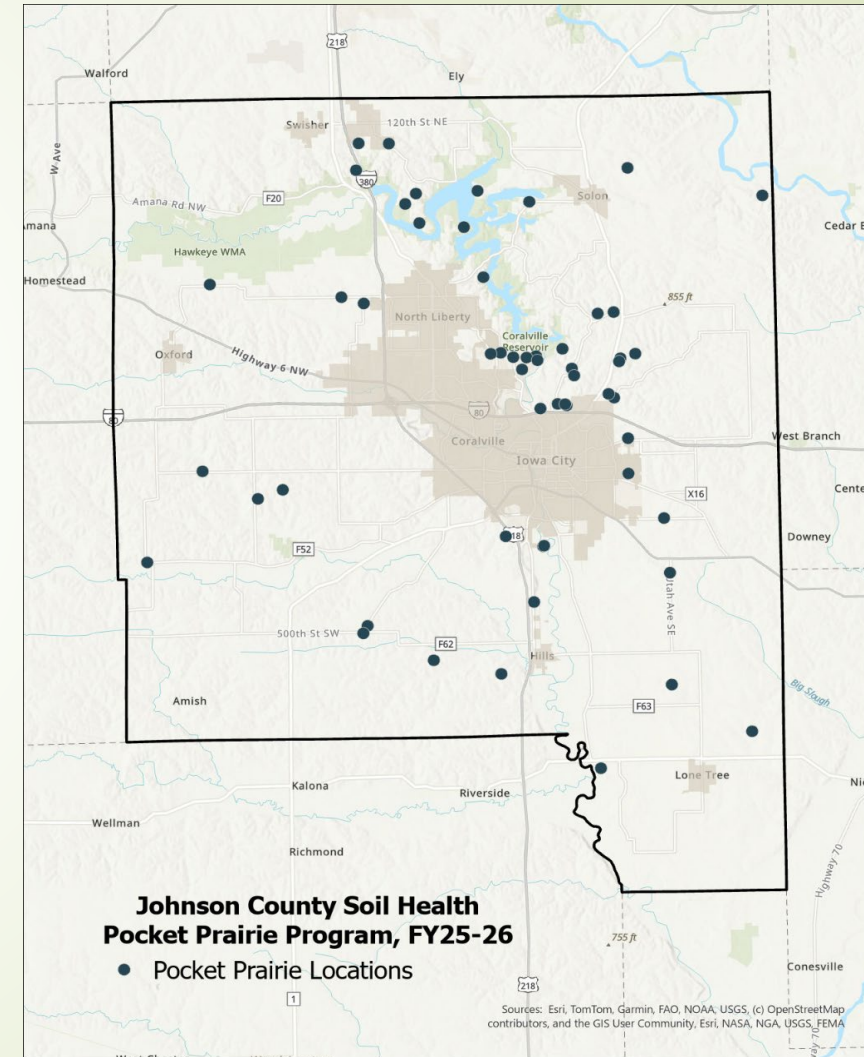


Melrose Avenue median

Every square foot of native plants counts!

- Join Homegrown National Parks — A call-to-action to restore habitat where we live and work, and where we farm and graze, extending national parks to our yards and communities.
- Consider registering your property — Get On the (interactive) Map.
- <https://homegrownnationalpark.org/about-us/>
- The goal is to inspire and track 20 million acres of native plantings across North America.
- You can track Johnson County's prairies online.

<https://homegrownnationalpark.org/whats-the-rush/>
<https://homegrownnationalpark.org/videos/>



Jay Walljasper (1947-2020)

“What We Share: A Field Guide to the Commons”

“The commons refers to a wealth of valuable assets that belong to everyone. These range from clean air to wildlife preserves; from the judicial system to the internet. Some are bestowed to us by nature; others are the product of cooperative human creativity.”

Resources:

40

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Resources continued

- <https://www.bloomingprairieiowa.com/>
- <https://deeproots.org/>
- <https://www.kcrg.com/2023/09/28/iowa-has-lost-half-its-soil-richness/>
- <https://dyckarboretum.org/roots-of-native-plants/>
- <https://www.earthday.org/factsheets/>
- <https://homegrownnationalpark.org/whats-the-rush/> Doug Tallamy
- <https://www.houzz.com/magazine/how-to-bring-native-plants-into-an-established-garden-stsetivw-vs~86155797>
- <https://www.iowadnr.gov/conservation/prairie-resource-center>
- https://www.iowadnr.gov/portals/idnr/uploads/Wildlife%20Stewardship/native_plants_low.pdf
- <https://www.iowapublicradio.org/gardening/how-to-create-a-backyard-prairie>
- <https://littlevillagemag.com/ur-here-the-community-the-crises-and-the-commons/>
- <https://www.parkbugle.org/supporting-pollinators-the-little-things-that-run-the-world/>
- <https://www.pennington.com/all-products/grass-seed/resources/the-history-of-the-american-lawn>
- <https://publications.iowa.gov/43148/1/PrairieSeedlingGuide.pdf>
- <https://www.scientificamerican.com/blog/anthropology-in-practice/the-american-obsession-with-lawns/>
- <https://www.smithsonianmag.com/science-nature/meet-ecologist-who-wants-unleash-wild-backyard-180974372/>
- <https://www.washingtonpost.com/news/wonk/wp/2015/08/04/lawns-are-a-soul-crushing-timesuck-and-most-of-us-would-be-better-off-without-them/>
- <https://store.extension.iastate.edu/product/12595>
- <https://www.storycountyiowa.gov/DocumentCenter/View/12007/Native-Planting-Establishment-and-Management-NRCS>
- <https://www.thenation.com/article/archive/struggle-commons/>
- <http://uipress.lib.uiowa.edu/ppi/index.php>
- <http://uipress.lib.uiowa.edu/ppi/counties.php?record=64> – **Prairie Plants found in Johnson County, Iowa**
- <https://yardandgarden.extension.iastate.edu/how-to/how-kill-grass-create-new-garden-bed> - how to prep a site for a prairie
- <http://www.USWildFlowers.com/stateref.php?state=IA>

Resources continued

■ Invasive Species

- <https://naturalresources.extension.iastate.edu/invasives>
- <https://www.iowadnr.gov/programs-wervices/forestryresources/forest-tree-health/invasive-plants>
- <https://mipn.org/invasive-plant-list>

■ Iowa Native Species

- <https://gardenforwildlife.com/collections/native-plants-for-iowa>
- <https://nativeplantfinder.nwf.org/>
- <https://www.rareroots.com/collections/iowa-native-perennials>
- <https://sustainability.uiowa.edu/native-plant-habitats>
- https://www.fs.usda.gov/wildflowers/Native_Plant_Materials/Native_Gardening/
- <https://www.fws.gov/project/native-plant-list>
- <https://www.americanmeadows.com/content/state-birds-flowers-wildflowers/iowa-state-flower>
- <https://nativebackyards.com/native-plants-by-state/#iowa-native-plants>
- <https://www.iowanativeplants.org/>
- <https://www.iowadnr.gov/news-release/2015-05-12/7-native-easy-care-plants-your-yard>
- <https://www.iowadnr.gov/news-release/2025-05-07/adding-iowa-native-plants-landscaping-benefits-native-bees-and-butterflies>
- <https://www.iowadnr.gov/media/1762/download?inline>

Pocket Prairie Program

Additional Resources: Download to print as handouts.

- ▶ Iowa Monarch Conservation Consortium — 5 Ways to Help the Monarchs
<https://store.extension.iastate.edu/product/15817>
- ▶ Introduction to Iowa Native Prairie Plants
<https://store.extension.iastate.edu/product/12595>
- ▶ Iowa Monarch Conservation Strategy
<https://monarch.ent.iastate.edu/files/inline-files/summary-iowa-monarch-conservation-strategy.pdf>
- ▶ <https://secure.iowadot.gov/Irtf/ShoppingCart.aspx> - invasive species
online: <https://secure.iowadot.gov/Irtf/NativePlantPublic.aspx>
- ▶ Living Roadway online only:
https://secure.iowadot.gov/Irtf/docs/Roadside_floweringplantsandgrasses.pdf
- ▶ Homegrown National Park map <https://map.homegrownnationalpark.org/>

➤ **Project GREEN Second Sunday Garden Forums 2027**

Free and open to the public

- **Jan. 10, 2027**, 2 p.m. *Cultivating Creativity | The Living Campus: Art & Nature*
- **Feb. 14, 2027**, 2 p.m. *The Iowa Conservation Challenge: Protect Wildspaces*
- **March 14, 2027**, 2 p.m. *Low Maintenance EcoGardening*

Johnson County Master Gardeners

Community Speaker Series

March 22, 2027

Johnson County Extension Office, 3109 Old Hwy 218 S, Iowa City

Registration for the program is required; the program is free and open to the public

1 p.m. *Iowa's Big Trees*

2:15 p.m. *How Homeowners Can Create Native Landscapes*

3:30 p.m. *Invasive Species/Poison Plants*