

Native Plants in the City



Urban Design & Ecosystem Services

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The Lurie Garden, Millennium Park, Chicago, Illinois

Plant Selection

1. Analyze site conditions -
sun, soil, wind, rain, etc.
2. Program the space –
How will it be used
and by whom?
3. Identify green
infrastructure needs –
Ecosystem services
Working landscapes
4. Select a theme/concept
Art elements
Principles of design
5. Determine availability



The Lurie Garden, Millennium Park, Chicago, Illinois



<http://landscapevoice.com/millennium-park-the-lurie-garden/>

Image credit: Gustafson Guthrie Nichol Ltd (designers + Piet Oudolf)



<http://brynmawrhistoric2.blogspot.com/2010/05/lurie-garden-new-wave-planting-style.html>

Native Landscaping Resources

Presentations

Benefits of Native Plants in the City
Principles of Native Landscape Design
Native Edible Plants

Know how to maintain native plants

MAINTENANCE

Design For Maintenance

Trees and shrubs are good options for ease of maintenance. When incorporating grasses and perennials, a simple plant palette of a few easily recognizable species will be easier to maintain. Overplanting can create plant health and maintenance issues due to overcrowding as plants mature.



Establishment

Native plants are slower to establish than other plants. It takes native plants about 1 to 2 years to establish their root structures before expanding foliage or producing flowers or fruit. In addition, it can also be difficult to differentiate native plants from weed seedlings. In order to establish good seed-soil contact, drill seeding is preferred to broadcast seeding. Drill seeding buries seeds at a specific depth, whereas broadcast seeding involves scattering seed over the soil surface.

Establishment can be sped up by using potted plants such as deep cell plugs and gallon size potted plants. Small plants are initially more cost-effective, but issues can arise if there is not proper maintenance during establishment (watering, weeding, etc.)

Common Problems



Soil Health

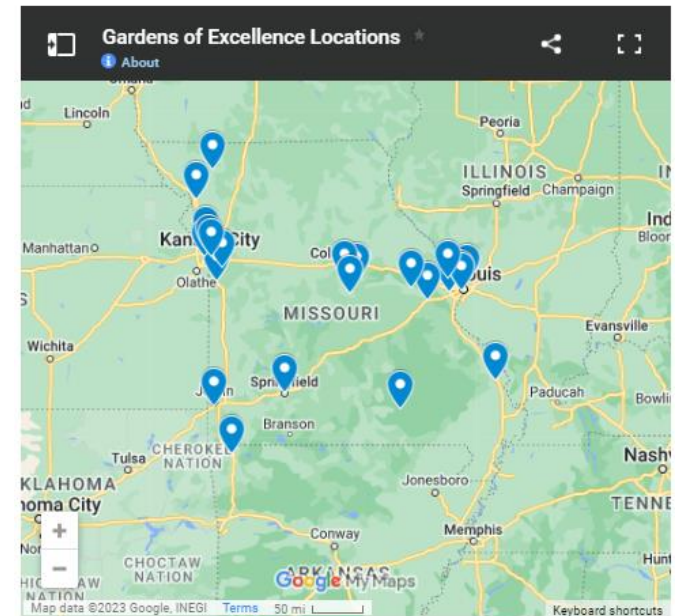
It may be helpful to take a soil test prior to installing plants. Soil tests can determine the level of organic material in the soil, which is important in absorbing and holding nutrients. Testing can also help prevent over fertilizing, which results in excess nutrients washing downstream.





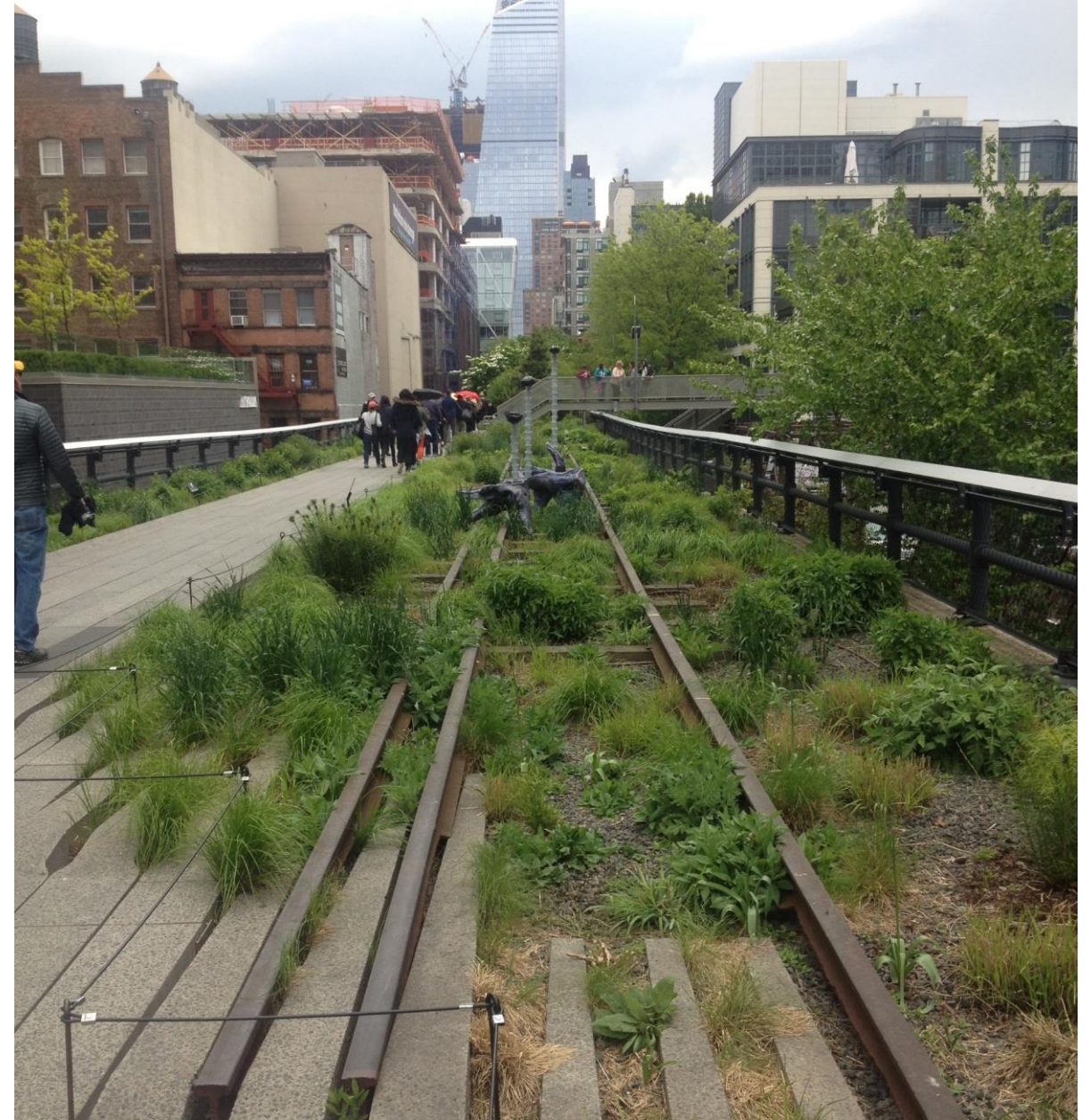
Native Gardens of Excellence

Created in 2021, the Grow Native! Native Gardens of Excellence program features plantings of native plants in designed, well-maintained gardens and in other native landscape plantings in the lower Midwest. The gardens and landscape plantings selected and showcased in this program are not limited by size, scope, or professional involvement. Some have been designed by landscape architects or designers while others are informal, seeded landscapes, and some are professionally maintained while others are maintained by volunteers. The Grow Native! Native Gardens of Excellence are located in a variety of settings ranging from multi-acre plantings associated with commercial properties; formal, urban gardens; and even small community plots.



<https://grownative.org/learn/gardens-of-excellence/>

Design Case Study: The Highline Trail, NYC



Design Case Study: The Laura Ingalls Wilder Museum Mansfield, Missouri



Photo: Ronda Burnett, MDC





ZOOM in on Monarch Butterflies

An insect marvel, the monarch butterfly is easy to recognize and amazing to watch.

With food sources, migration and wintering habitats threatened, conservation efforts focus on the monarch's life cycle and habitat needs. Agencies, groups, and citizens across the continent are rallying to support monarch butterfly conservation.

Just Add Milkweeds and Nectar



Monarch caterpillars feed only on milkweeds as a host plant, including green, swamp, purple, common and butterfly milkweeds. Planting milkweeds supports monarchs.



The butterflies feed on many nectar sources. Provide wildflowers summer through autumn, such as coneflowers, blazing stars, asters and goldenrods. Nectar fuels the journey. Monarchs are susceptible to chemicals, so avoid using pesticides.

A toxin in milkweed leaves makes the colorful caterpillars poisonous to predators, but does not hurt the larvae. Even the adults taste bad to birds.

Life Cycle

As an insect, the monarch butterfly goes through four life stages in about one month.



>1 EGG

Adult monarchs lay one tiny egg on a milkweed plant.

>2 LARVA

A striped caterpillar hatches, eats milkweed and grows rapidly, shedding its skin five times.

>3 PUPA

The larva becomes a pupa or chrysalis, transforming into a pale green capsule with gold trim.

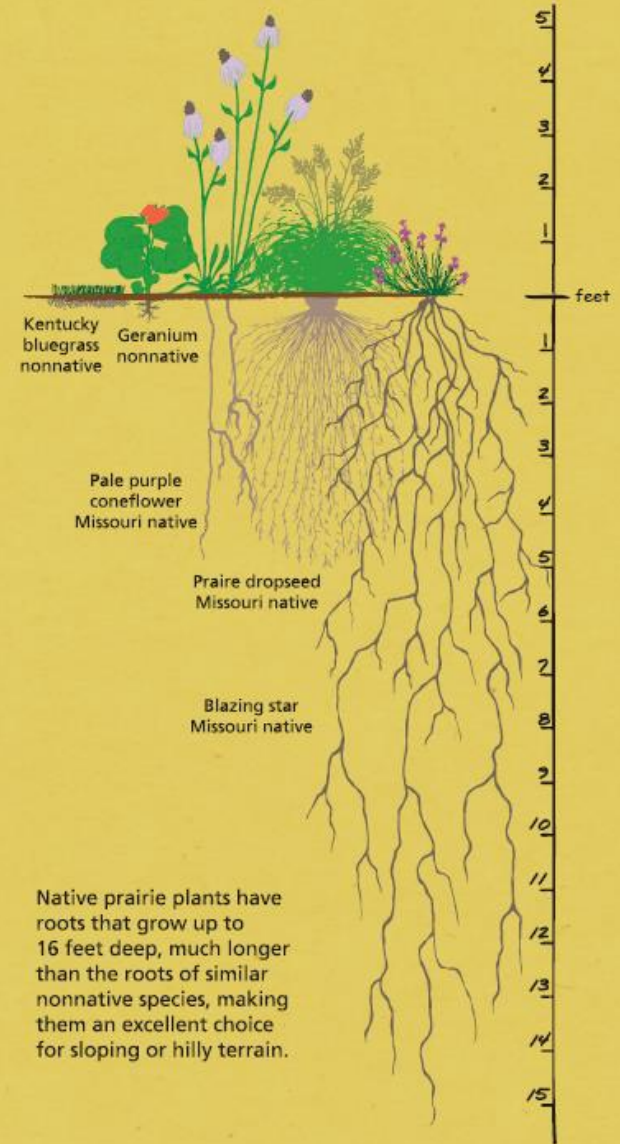
>4 ADULT

As the butterfly emerges, the wings are expanded by pumping them with stomach fluids. Adults live for 2 to 5 weeks, laying eggs for the next generation. Monarchs go through up to four generations or cycles each summer, with the last butterflies making the 2,000-mile migration south to Mexico.



Plants With Holding Power

Missouri native plants are a popular choice for landscaping and essential to pollinators and wildlife for habitat. Native plants prevent erosion by holding soil in place with extensive root systems.



Native prairie plants have roots that grow up to 16 feet deep, much longer than the roots of similar nonnative species, making them an excellent choice for sloping or hilly terrain.





Photo: Ronda Burnett, MDC





Prairie Dropseed
Sporobolus heterolepis



Splitbeard Bluestem
Andropogon ternarius
<http://greenplantreligion.tumblr.com/>



Broomsedge
Andropogon virginica

http://www.flickrriver.com/photos/alan_cressler/sets/72157603244080057/



Little Bluestem
Schizachyrium scoparium



Unless noted, photos by Ronda Burnett, MDC





Photos: Ronda Burnett, MDC



Adaptations for Stormwater Management

Government Plaza,
Springfield, Missouri



Photo: City of Springfield



Photo: Ronda Burnett, MDC



Photo: Ronda Burnett, MDC

Adaptations for Social Equity

Columbia, Missouri



Photo: Ronda Burnett, MDC

Adaptations for Climate Change

Municipal policy updates regarding water usage and landscape composition include:

1. Definitions and restrictions on **'non-functional' turf**.
2. Performance standards that require **certifications and trainings** for landscape professionals.
3. Enforcement provisions with more attention being given to **installation and maintenance** practices.

Image generated by AI



Turf Grass Alternative: *Carex pensylvanica*



Photo: Alan Branhagen

Linda Hall Library, Kansas City, Missouri

Certification Programs: Landscape Professionals



Landscape Architecture
Continuing Education System™

Photo of Pretty City maintaining a planting: Michael Kilfoy (Studio X)
<https://grownative.org/grow-native-professional-certification-program>



Joe Fearn • 1st

Landscape Manager at The U...
1w • 🌐



The winter landscape deserves a place when considering the garden. As today is the [#WinterSolstice](#) we appreciate our campus with new eyes. Here at [The University of Kansas](#) we love our hill year round. [#RockChalk](#) [#JayhawksRising](#) [#sustainability](#) [#landscapedesign](#)

👤 Jerany Jackson and 19 others

1 comment



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Lance Klein (He/Him) • 2nd

Partner - Studio Manager

1w ...

The native landscapes are look great this time of the year.

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