# Native Gardens Landscaping Guide Resources for Illinois

# Why Plant Native Plants at Home?

- Native prairie, woodland and wetland plants have evolved to thrive in our natural conditions and, after the first two or three seasons of establishment in your yard, typically require less maintenance than a conventional lawn or garden.
- Native plants do not require chemical fertilizer or pesticides as they are less prone to disease and pests, and can save you money in the long-term, while helping the environment and creating a healthier place for yourself, your family, and your community..
- Native plants can be quite beautiful and lend your backyard a sense of place rooted in natural history, while providing food and shelter to support birds and beneficial insects (e.g. dragonflies that eat mosquitoes) and keystone pollinators essential for healthy ecosystems.
- Native and other deep-rooted plants help direct rainwater into the soil and if planted in a rain garden in conjunction with a disconnected downspout, native plants are especially effective for managing stormwater. <u>Deep root systems</u> absorb more carbon than non-native species and help prevent flooding.

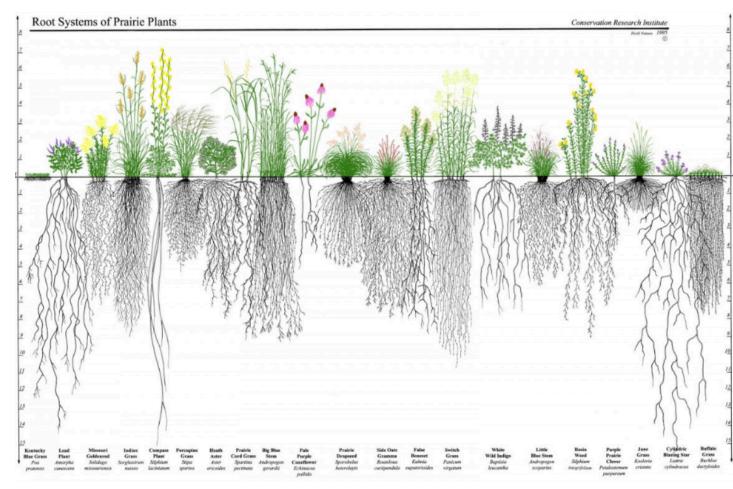


Image: Conservation Research Institute, Heidi Natura, 1995.

- Native plants provide nature corridors enabling species to move between naturalized areas.Most native bees have a range of about 750 meters, so the goal is to connect properties that are no farther apart than that have established pollinator-friendly habitat and food sources for bees, butterflies, hummingbirds and other pollinating insects and wildlife.
- Native plant gardens prevent the spread of invasive plant species, which disrupt plant communities or ecosystems. Most invasive plant seeds love naked soil. Dense, native landscaping is the best

protection against invasive plants taking hold. Sources:

Landscaping With Native Plants to Ward Off Invasives and Benefit Wildlife: A Homeowners Guide, Michigan Tech University

City of Chicago's Sustainable Backyards Program

Wild Ones - West Cook: Wildlife Corridor

Chicago Wilderness Alliance: Gardening for Nature

Lawn Love: 9 Best Native Plants For Your Chicago Garden

Chicago Botanic Garden: Landscaping With Native Plants

# How Do I Create a Native Garden?

1. Select a type of garden: rain garden, songbird, butterfly or pollinator garden

Resources: National Audubon Society - Chicago Region, The Monarch Prairie Kit - Create a Natural Place to Learn

2. Choose native plants to fill your garden based on whether your garden gets full sun, partial shade, or complete shade.

Resources:: <u>Conservation@Home</u>, <u>Wild Ones</u>, <u>The Wildflower Preservation and Propagation</u> <u>Committee</u>

3. Find plants uniquely suited to supporting wildlife (monarchs etc) in your region (Keystone plants).. Resources: <u>Keystone Plant by Ecoregions</u>, <u>Shedd Aquarium: Keystone Native Plants</u>, /<u>Homegrown National Park: Native Plant Resource Directory</u>

Doug Tallamy: The keystone is that stone in the middle of the Roman arch and if you take it out, the arch collapses. If you take keystone plants out of your local food web, the food web collapses, because they are producing most of the caterpillars that run that food web. There is a lot of buzz about keystone plants. Here is a handy list of some of them from the National Wildlife Federation.

https://www.nwf.org/-/media/Documents/PDFs/Garden-for-Wildlife/Keystone-Plants/NWF-GFW-k eystone-plant-list-ecoregion-8-eastern-temperate-forests.pdf?sc\_lang=en&hash=C475FADDFCC 2622C7539F25935F5DAA1

# Water Conservation: follow your water

It's easy to keep rainwater on your property so you can use it or let it soak into the ground. Here are some ideas:

- Redirect downspouts to gardens and plant sedges to sequester water.
- Set up a rain barrel or two. Water barrels and cisterns can be purchased through many city programs and allow you to capture rainwater for periods when water is in short supply. Water barrels and cisterns can be purchased through many city programs and allow you to capture rainwater for periods when water is in short supply.
- Install native plants, especially where water collects or flows (many have deep roots and thus soak up tremendous amounts of rainwater). Some species work especially well in these locations.
- Use permeable materials for sidewalks, driveways or parking lots such as brick, stone, porous blacktop or the new and oddly wonderful recycled-glass option.
   Sources:

WSA Stormwater Solutions Metropolitan Water Reclamation District of Greater Chicago UMass Extension Landscape, Nursery and Urban Forestry Program University of Illinois Urbana-Champaign, Illinois Extension: Rainfall Management "The positive effect of soil carbon sequestration on the climate footprint of intensively managed lawns was found to be negated by greenhouse gas emissions from management operations such as mowing, irrigation, and fertilization...The short uniform lawn through its monoculture and intensively managed lawnscapes has dislodged the majority of native zonal plant communities in urban environments."So...

- Reduce the size of your lawn
- Cutback on lawn chemicals
- Mow and water for healthy grass
- Aerate and add a thin layer of compost
- Treat problem areas, not the entire lawn
- Sources:

West Creek Conservancy: Shrink Your Lawn: A Guide To Growing More Native Plants Land Conservancy of McHenry County: Water Conservation An Alternative Urban Green Carpet, Science, October 2018 P. Tidåker, T. Wesström, T. Kätterer Energy Use and Greenhouse Gas Emissions from Turf Management of Two Swedish Golf Courses, 21, Urban Forestry & Urban Greening (2017), pp. 80-87

## **Native Garden Landscapers**

- My Home Park predesigned native gardens by mail
- <u>Dante's Native</u> does large scale (municipalities and small scale projects)
- <u>Space to Grow</u> does school yards and has a lot of Chicago area resources and educational tools
- <u>Red Stem</u> designs and plants native gardens
- <u>Good Natured Landscapes</u>- design sustainable, site specific solution based native gardens
- <u>Wild World Gardens</u>- designs gardens for health, habitat and healing
- Nurtured Roots Gardening native gardens designed for biodiversity and native plants
- <u>Wild One's</u> free native garden designs

# Where can I buy native plants, trees, and shrubs?

- <u>Red Buffalo Nursery</u> Plant sale : Hebron and Woodstock, Illinois.
- Possibility Place -for local plants by mail or pick up
- In Cook County, you can get a free packet of milkweed seeds and native trees (oaks) from the <u>Metropolitan</u> <u>Water Reclamation District website</u>.
- <u>Chicago Living Corridors</u> is a good local resource for where to buy plants and other information
- <u>University of Illinois Extension</u> has multiple local resources for native plants and other information
- <u>Wild Ones list</u> of native plant Nurseries
- <u>The Wildflower Preservation and Propagation Committee()</u> hosts a native plant, tree, and shrub sale the 1st Sunday of every May at McHenry County College in Crystal Lake, Illinois.
- Barrington Area Conservation Trust: Barrington, Illinois.
- <u>Citizens for Conservation fall shrub sale</u>: Barrington, Illinois.
- <u>Prairie Moon Nursery</u> : Minnesota.
- <u>Native Plant Nurseries</u> compilation of nurseries
- <u>American Meadows</u> sells seeds and kits

# Landscaping HOA Properties

"If you decide to develop a landscape plan for your entire property, get photos of nicely designed yards in your community with wildlife gardens or native plants to show members of the board what your yard is going to look like," she says. "This makes a world of difference in getting the plan approved." Hansen also suggests including photos of native plants you intend to use. "It helps the members of the board visualize the yard" and shows them that the new plants will be attractive, especially if you use varieties with colorful blooms and berries." Gail Hansen, an associate professor in the <u>University of Florida's</u> <u>Department of Environmental Horticulture</u>

The National Wildlife Federation last May published a <u>*Guide to Passing Wildlife-Friendly Property</u></u> <u><i>Maintenance Ordinances*</u>, which provides model ordinances as well as landscape plans. "There's no need to reinvent the wheel," says Patrick Fitzgerald, NWF's senior director of community wildlife. "Take these model plans and adapt them to your community." The guide also includes advice for adding natives to an HOA's list of permissible plants, especially the milkweeds that sustain monarch butterflies, too often classified as noxious or nuisance plants.</u>

Save money by taking out the dated landscaping and replacing it with native plants that require less water and can thrive without expensive fertilizers and pesticides.

National Wildlife Association: Greening Your Homeowners Association, Doreen Cubie

# <u>Design Tips to Please Your HOA</u>, Carol Bornstein, horticulturist, garden writer, educator and designer. California Native Plant Society

- Start by analyzing your site's soils, exposures, microclimates, topography, etc
- How much time or money will you devote to tending your garden?
- Decide what you want from your new garden: Habitat for wildlife?
- Choose a color scheme.
- Strive for a simple, harmonious composition of repeating forms, colors, and textures.
- Emphasize foliage.
- Focus on form.
- Limit the use of plants with a scruffy dormant phase or plan for it.
- Incorporate some formality into the design,
- Use a garden ornament bird bath, sundial, a colorful pot
- Are there any exotic plants in the HOA common areas that might fit in?
- Know your plants.

# Toward a Native Plant Friendly HOA, Indiana Native Plant Society

# Additional helpful resources:

# How to Start a Native Garden From Scratch (Growit Buildit)

This is a beginners guide to start a Native Plant Garden. In this article I will go through all the steps you need to know to make a Native Plant Garden from scratch.

# EPA: Landscaping With Native Plants

This whole document is awesome from defining a native plant and a non-native and invasive plant to a list of natives and then which natives will attract what wildlife and also a chart for where to plant natives - sun, shade,... It also gives examples of native gardens created throughout Northern Illinois.

# Illinois Department of Natural Resources: For Your Garden

This site gives a wealth of information on Illinois native species which you can access by scrolling through the list alphabetically or accessing species by garden type.

#### Chicago Wilderness: Native Landscaping Guide

NATIVE LANDSCAPE & ECOLOGICAL RESTORATION GUIDE Recommendations for Contractor Selection, Project Specifications, Performance Standards, Monitoring and Management Guidelines, and Institutional Arrangements Prepared by the Native Landscape & Restoration Contractor Selection Guide Working Group

Under <u>Native Plant Garden</u> you can read about the ideas behind plantings for Native, Woodland, Prairie and Pollinator sections of the garden.

#### Sourcebook on Natural Landscaping for Local Officials, Northeastern Illinois University

Natural landscaping minimizes the environmentally detrimental effects of pesticides and fertilizers, as well as the noise pollution and the emission of air-polluting substances from lawn maintenance equipment. It virtually eliminates the need to use water for irrigation, as is required for turf grass lawns. While not maintenance free, natural landscaping requires less time and money for ongoing maintenance than conventional landscapes.

## Field Museum: A Selection of Native Shrubs and Noteworthy Non-native Shrubs

Great resource of mostly native shrubs (non-native shrubs are indicated in red ink) of the Chicago area. It provides pictures, information about the size and flowers, and preferred soil/sun for each species. 2008

## Wild Ones - West Cook: Wildlife Corridor

West Cook Wild Ones engages residents and organizations in creating landscapes that feature native shrubs, trees, plants, and grasses as a way to increase biodiversity in the Oak Park/River Forest area (including Chicago, Berwyn and other surrounding towns). We hope that with enough yards acting as habitats for wildlife, we can support populations of beneficial species who are here either as year-long residents or as migrants.

Corridors work by increasing connectivity between patches that are isolated because of habitat fragmentation, due primarily to urbanization, agriculture, and forestry (Conservation Corridor). Habitat fragmentation impacts animal and plant populations because they are not able to rebound from habitat disturbance (e.g., fire) or disease since the organisms cannot move easily from one area to another. Since populations are cut off from each other, reduced genetic diversity is another result. Habitat fragmentation due to human activity is an ever-increasing threat to biodiversity, so habitat/wildlife corridors are a possible mitigation.

## Landscaping With Native Plants to Ward Off Invasives and Benefit Wildlife: A Homeowners Guide.

Native plants evolved over thousands of years in a particular region or ecosystem. They are adapted to the local climate and soil conditions, and often require fewer inputs like fertilizer and irrigation compared to nonnative plants. Properly selected and installed native plants are highly competitive, ornamental without being weedy, and attract beneficial insects and pollinators. Dense, native-forward landscaping is the best protection against invasive plants taking hold. Invasive plants are non-native, able to thrive in a variety of conditions, grow quickly, and spread to the point of disrupting plant communities or ecosystems. When planning your landscaping, if you cannot work entirely with native species, it is critical that you avoid the dozens of invasive plants that are still popular in trade, such as burning bush, Callery pear, and wintercreeper.

#### Xerxes Society

A great resource for native plant gardens and everything you need to know to establish one. "Native plants are the foundation of diverse habitats that support pollinators, beneficial insects and other wildlife. This searchable database will help you find businesses, organizations, and networks in Canada, the United States, and Mexico that supply native plants, native seeds and related services. Find local native plant nurseries, nearby plant stores, seed retailers, landscapers specializing in native gardens, and more using our filterable tool."

## **Composting and Gardening**

Gardening and composting play a critical role in reducing greenhouse gases. Utilized together, composting and gardening support a closed loop cycle for food. Whether through community gardening or home gardening there have been five factors that impact greenhouse gas emissions:

- 1. Reduction of lawn area due to replacement by the garden
- 2. Reduction of vegetables purchased from the grocery store
- 3. Reduction in the amount of greywater sent to treatment facilities due to diversion to irrigate the garden
- 4. Reduction in amount of household organic waste exported to treatment facilities due to home composting
- 5. Organic household waste is composted for use in the garden.

Dupage County: Composting and Gardening

## Resources for composting in Illinois:

- Illinois Food Scrap Coalition
- <u>Compost 101</u>
  <u>Start Composting</u>
  <u>Haulers & Compost Processors</u>
  <u>Restaurants & Businesses that Compost</u>
  <u>U.S. EPA Composting at Home</u>
  <u>Reducing Waste Food</u>
  <u>Composting at Home</u>
  <u>The Versatility of Compost to Capture, Clean & Divert Stormwater Webinar</u>
  The City of Chicago's free composting sites
  <u>Chicago Environmentalists</u> list of local compost companies

## Illinois Department of Natural Resources: Landscape With Native Plants

Native plants include the tree, shrub, grass, and flower species that evolved over thousands of years to be best adapted to the Illinois climate and soils. Without these native plants the insects, birds, and other animals that co-evolved with them cannot survive.

"Native plants add beauty to the landscape as well as food and shelter for wildlife. Native plants include the tree, shrub, grass, and flower species that evolved over thousands of years to be best adapted to the Illinois climate and soils. Without these native plants the insects, birds, and other animals that co-evolved with them cannot survive. Landscaping with native plants brings beauty and biodiversity to your yard or property.

Since native plants are adapted to the Illinois climate, they require little care once they are established. Many of these plant species require minimal watering and are amazingly resilient to Illinois weather extremes, insects, weeds, and most diseases. This means you will need to use fewer chemicals in your yard, such as pesticides, herbicides, and fertilizers, which in turn improves local water quality. And unlike annuals, these perennial plants will regrow each year.

The Illinois Department of Natural Resources' For Your Garden page has information on over 150 native plant species, and the page highlights a new species each month. From that page there are several ways to search for individual native plant species as well as to search for plant species based on garden type."

Prairie Establishment and Landscaping Illinois Native Plants for the Home Landscape IDNR: Native Illinois Plant Guide Illinois-Indiana Sea Grant: Native Spring Ephemerals: A Guide to Illinois Native Sprig Ephemerals for the Home Garden

#### Chicago Audubon Society: Native Plant Gardening For Birds

Chicago Bird Alliance provides a great deal of information for creating habitats for birds, whether migrating or long-term habitats. Resources include how to prepare a bird habitat, and what to plant according to each season.

<u>Sierra Club Chicago Chapter: Planting for Pollinators</u>, Susan Murray <u>Arbor Day Foundation: Want Bees, Plant These</u>, by Sheereen Othman <u>Beyond Pesticides: Ecological Pest Management</u>

<u>Wild Ones West Cook Chapter: Where To Get Native Plants and Landscapers</u> Good resources to find "Native Plants and Landscapers" for the Wild Ones West Cook region

## Audubon: Why Native Plants Matter

Website covers all the basic reasons native habitats are good for birds and the environment. There is a link to a Doug Tallamy video. <u>Audubon: Native Plants Database</u>

The Conservation Foundation: The Conservation @ Home Project A great resource to get a native garden going at home. Helpful links: Earth Friendly Landscaping Creating Native Plant Gardens Rain Barrels Getting Certified Conservation @ Work Presentations & Events Professional Resources Conservation@Home Regional Partnerships

#### Illinois Extension: Native Plants

Great resource on what to plant, where to purchase, and upcoming plant sales for natives.

#### Grow Garden Resources of Woodlawn: Native Plants

Good resources for Chicago-area establishment of native gardens to attract birds and pollinators. Also gives a map of current native gardens in Chicago.

#### Sag Moraine Native Plant Community: Resources

Comprehensive site and why native gardens matter, what you can do to start your native garden and be active in helping transition your community to include native gardens, how to select plants, garden design, and planting, including native landscapers.

## Landscaping in a Landmark Village: Riverside, 2021

Fascinating history of Riverside and its establishment as a quiet village with 40% reserved for open space. Frederick Law Olmstead reinforced that idea and 900 acres of forest preserve were created that surround Riverside. Continuing in this historical tradition, Riversi

## **Green Grounds Certification**

For school campuses, the re;wild certification program gives student and community input in the process of moving campus grounds to more sustainable habitats, reducing water use, increasing native plants, and decreasing synthetic fields and pesticide use.

#### **Openlands: Add Attractive Natives**

Wildlife cannot survive solely on the European and Asian plants that cover so much of our suburban landscape. They need plants native to this specific area because of intricate food chain requirements subtly timed to synchronize with each other during pollination, migration, seed dispersal, and other seasonal rhythms. Your natives will help our wildlife and create habitat connections between our remaining natural areas.

How to Add Native Plants: Companies and individuals who specialize in native landscape design, or maintenance include:

Davey Resource Group Eubanks Environmental, EUBANKSINC@GMAIL.COM Landserve, JOHNLMARIANI@GMAIL.COM Living Landscapes Red Stem Landscapes Ringers Landscaping Sage Advice Landscaping ILM Environment

## Peer-reviewed Research Papers on the Benefits of Native Gardening:

Research has shown that native gardening can have a range of benefits. <u>Helfand (2006)</u> found that people are willing to pay more for well-designed yards with native plants, suggesting a potential economic benefit. <u>Fiedler (2007)</u> highlighted the role of native flowering plants in attracting beneficial insects, which can help suppress pests and increase crop yields. <u>Raymond (2018)</u> explored the environmental, social, and economic co-benefits of home gardening for biodiversity conservation, including improved mood and increased self-esteem. However, <u>Whelan (2006)</u> cautioned that without careful management, gene flow from garden plants could disrupt the genetic integrity of nearby natural populations

Raymond, C. M., Diduck, A. P., Buijs, A., Boerchers, M., & Moquin, R. (2019). Exploring the co-benefits (and costs) of home gardening for biodiversity conservation. *Local Environment*, *24*(3), 258-273. Advance online publication. <u>https://doi.org/10.1080/13549839.2018.1561657</u>

Christopher M. Raymond, Alan P. Diduck, Arjen Buijs, Morrissa Boerchers & Robert Moquin(2019) Exploring the co-benefits (and costs) of home gardening for biodiversity conservation,Local Environment, 24:3, 258-273, DOI: <u>10.1080/13549839.2018.1561657</u>

Frontiers | Phytoremediation: A Promising Approach for Revegetation of Heavy Metal-Polluted Land <u>https://www.frontiersin.org/journals/plant-science/articles/10.3389/fpls.2020.00359/full</u> Discussion of long roots of native plants can absorb heavy metals - phytoextraction.