

## Landscaping for Biodiversity with Ohio Native Plants: A Species Guide for Plantings.

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Cover photos beginning top left clockwise: Native plant rain garden (photo by: Jennifer Grieser), Carpenter Bees on Swamp Milkweed (photo by: Tim Krynak), Native plant rain garden (photo by: Jennifer Grieser) Ohio Buckeye Butterfly on New England Aster (photo by: Tim Krynak)

## **Landscaping for Biodiversity with Ohio Native Plants: A Species Guide for Plantings.**

Biodiversity encompasses the variety of life and connectedness among species. Incorporating native plants into the landscape provides natural beauty and enhances beneficial interactions by creating habitat, food, nest sites, pollen and nectar sources for various wildlife including pollinators and birds. Our native plants are best adapted to local environments. These adaptations allow plants to have significant impact on local ecosystem services. These ecosystem services include: provisioning (providing food, clean water and fiber), regulating (climate regulation, stormwater management), supporting (nutrient and water cycling) and cultural (gardening, education in nature).

In recent years, there has been significant decline in pollinator populations. Bumblebees and butterflies including Monarchs have suffered dramatic, declining populations in the last 20 years. The causes of decline are attributed to many environmental stressors including; habitat fragmentation, loss of adequate food resource, climate change and unusual weather patterns, pesticides, diseases and pests. Native plants are a good option for providing the necessary habitat, pollen, nectar and foliage to support pollinators. Even the smallest parcel in an urban backyard can provide beneficial habitat. The suggested lists of native plants will enhance any landscape planting and provide beneficial ecosystem services.

This document is applicable for any type of native planting. Users of this resource can range from professional landscape designers, urban foresters and consultants to novice homeowners and garden club members. The species included represent a variety of forms and are organized into six tables:

- Table 1.** Forbs
- Table 2.** Grasses, Sedges and Rushes
- Table 3.** Ferns
- Table 4.** Vines
- Table 5.** Shrubs
- Table 6.** Trees

Species included in each table represent generalized plant characteristics and are sorted by various attributes. Note that while various resources were consulted to develop this list, some level of subjectivity is inherent when making a suggested list of plant species.

**Tables 1-5 Organization:** Each table is sorted by size (height), light tolerance, and bloom time.

1. **Height class.** From shortest to tallest.
  - Low (under 1 foot)
  - Medium (1-3 feet)
  - Tall (3-6 feet)
  - Extra tall (> 6 feet)
2. **Light tolerance.** Included as either a constrained light environment or a range of tolerance.
  - Full sun
  - Full sun to (Partial shade) to (Shade)
  - Partial shade
  - Shade
3. **Bloom times.** Duration of flowering may fall within a range, but is unique for each species
  - Spring (April-May)
  - Late Spring (May-June)
  - Summer (June-August)
  - Fall (August- October)

Tables 1-5 also includes attributes describing each species bloom color, soil moisture tolerance, Wetland Indicator Status and Coefficient of Conservation (CofC) (Andreas et al. 2004). The CofC value is assigned to each species based on the range of their ecological tolerance and is scored from 0 to 10. The higher the CofC value, the greater a species habitat specificity and narrower ecological tolerance range will be. (See NOTES section below for additional information)

**Table 6 (Trees) Organization:** Native tree species are sorted by their overall tolerance to a variety of urban stress.

1. **Relative tolerance to urban stress.**
  - High (Can successfully adapt to a variety of urban conditions)
  - Medium (Can adapt to a few urban conditions)
  - Low (Will not grow well in urban conditions)

Table 6 also includes generalized characteristics and tolerance levels for various stressors common in urban and landscaped environments including salt tolerance, soil compaction, drought tolerance, heat tolerance, and soil pH.

Three additional tables provide definition or clarification for species attributes.

**Table 7.** Describes wetland indicator categories as defined by the USDA (2008)

**Table 8.** Describes soil moisture tolerance ranges.

**Table 9.** Describes Coefficient of Conservatism (C of C)

The diversity of species and forms included in this resource ensure native plant options for any planting environment. The selected species represent plants that are available for purchase from several Ohio native plant nurseries. Prior to using this document, please read the list of special considerations below.

**NOTE:**

1. Caution should be used when considering a plant with a CofC value of 9 or 10 as these species have a very narrow range of ecological tolerances and may be challenging to establish and care for in a landscape environment.
2. Species highlighted in yellow are state listed in Ohio as extirpated, endangered, threatened or potentially threatened. Please consider carefully the source of seed or propagules and be aware that these species may not always be appropriate.
3. Species highlighted in blue are recommended native plants by the Lake Erie Allegheny Partnership (LEAP) [www.leapbio.org](http://www.leapbio.org)
4. When purchasing native plants, ensure that the scientific name matches the plant you are buying. Note that common names are sometimes used for more than one species and that species names do change over time. The most recent list of plant species in Ohio can be found at: [www.epa.ohio.gov/Portals/35/401/LU\\_Veg\\_Species.html](http://www.epa.ohio.gov/Portals/35/401/LU_Veg_Species.html)

**Web Resources:**

To locate a native plant nursery:

<http://leapbio.github.io/nurseries/>

<http://npn.rngr.net/resources/directory>

For more information on native plants and please visit

<http://www.wildflower.org/plants-main>

[http://web4.audubon.org/bird/at\\_home/PlantNativeSpecies.html](http://web4.audubon.org/bird/at_home/PlantNativeSpecies.html)

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**Table 1: Ohio native forbs species list and traits.** These are generalized plant characteristics: variability occurs in height, bloom time, bloom color, soil moisture, and sun/shade tolerance.

	Plants listed as rare in the state of Ohio
	Native Plants of the Year as designated by LEAP
Color Key for Plant Heights	
	Low ( under 1ft)
	Medium ( 1 to 3ft)
	Tall ( 3 to 6ft)
	Extra Tall (over 6ft)

Scientific Name	Common Name	Maximum Height	Light tolerance	Bloom Time	Bloom Color	Soil Moisture Tolerance	Wetland Indicator Status	C of C
<i>Anemone canadensis</i>	Canada Anemone	Low (1ft)	Partial Shade	Late Spring (May-Jun)	White	Wet-Moist	Facultative Wetland	5
<i>Asarum canadense</i>	Wild Ginger	Low (0-1ft)	Partial Shade	Spring (Apr-Jun)	Maroon	Moist	Facultative -	6
<i>Calopogon tuberosus</i>	Grass-Pink	Low (0-2ft)	Full Sun	Summer (Jun-Aug)	Magenta	Wet-Moist	Facultative Wetland +	9
<i>Caltha palustris</i>	Marsh Marigold	Low (0-1ft)	Full Sun	Spring (Apr-May)	Yellow	Wet	Obligate Wetland	6
<i>Chrysogonum virginianum</i>	Golden Knees	Low (<1ft)	Partial Shade	Spring (Apr-May)	Yellow	Dry	Upland	6
<i>Claytonia caroliniana</i>	Carolina springbeauty	Low (<1ft)	Partial Shade	Spring (Mar-Jun)	White, Pink	Moist	Facultative Upland	6
<i>Claytonia virginica</i>	Spring Beauty	Low (<1ft)	Shade	Spring (Mar-May)	Pink	Moist	Facultative	2
<i>Dicentra canadensis</i>	Squirrel Corn	Low (0-1ft)	Partial Shade	Spring (Apr-May)	White, Yellow	Moist	Upland	6
<i>Dicentra cucullaria</i>	Dutchman's Breeches	Low (0-1ft)	Shade	Spring (Apr-May)	White	Dry	Upland	6
<i>Erythronium americanum</i>	Yellow Trout Lily	Low (0-1ft)	Partial Shade	Spring (Mar-May)	Yellow	Moist	Upland	4
<i>Fragaria virginiana</i>	Wild Strawberry	Low (<1ft)	Full Sun to Shade	Spring (Apr-Jun)	White	Moist	Facultative	1
<i>Geranium maculatum</i>	Wild Geranium	Low (0-1ft)	Partial Shade	Late Spring (May-Jun)	Pink, Lavender	Moist	Facultative	4



Scientific Name	Common Name	Maximum Height	Light tolerance	Bloom Time	Bloom Color	Soil Moisture Tolerance	Wetland Indicator Status	C of C
<i>Hepatica acutiloba</i>	Sharp-Lobed Hepatica	Low (<1ft)	Full Sun to Partial Shade	Spring (Mar-Apr)	White, Pink	Moist	Upland	5
<i>Hydrophyllum virginianum</i>	Virginia Waterleaf	Low (0-1ft)	Shade	Late Spring (May-Jun)	White, Purple	Moist	Facultative	4
<i>Menyanthes trifoliata</i>	Buckbean (Bog Bean)	Low (0-2ft)	Full Sun to Partial Shade	Spring (Apr-Jun)	White	Wet	Obligate Wetland	9
<i>Mitchella repens</i>	Partridge-Berry	Low (<1ft)	Partial Shade	Summer (Jun-Jul)	White, Pink	Moist-Dry	Facultative Upland	5
<i>Opuntia humifusa</i>	Prickly Pear Cactus	Low (<1ft)	Full Sun	Summer (May-Jul)	Yellow	Dry	Upland	8
<i>Phlox pilosa</i>	Downy Phlox	Low (1-2ft)	Full Sun to Partial Shade	Spring (Apr-May)	Magenta	Moist	Facultative	6
<i>Sedum ternatum</i>	Wild Stonecrop (Woodland Stone Crop)	Low (0-1ft)	Shade	Spring (Apr-Jun)	White	Dry	Upland	5
<i>Sisyrinchium albidum</i>	Pale Blue-Eyed Grass	Low (<1ft)	Full Sun to Partial Shade	Late Spring (May-Jun)	Blue	Moist	Facultative	6
<i>Sisyrinchium angustifolium</i>	Stout Blue-Eyed Grass	Low (<1ft)	Full Sun to Shade	Late Spring (May-Jun)	Blue	Wet-Moist	Facultative Wetland -	2
<i>Thalictrum thalictroides</i>	Rue-anemone	Low (0-1ft)	Partial Shade	Spring (Mar-Jun)	White, pink	Moist	Upland	6
<i>Trillium grandiflorum</i>	Large-Flowered Trillium	Low (0-1ft)	Shade	Spring (Apr-May)	White	Dry	Upland	5
<i>Viola canadensis</i>	Canadian white violet	Low (1ft)	Shade	Late Spring (May-Jun)	White	Moist	Upland	5
<i>Viola cucullata</i>	Marsh Blue Violet	Low (<1ft)	Full Sun to Shade	Spring (Apr-Jun)	Blue, Purple	Wet-Moist	Facultative Wetland +	6
<i>Viola sororia</i>	Common Blue Violet	Low (<1ft)	Full Sun to Partial Shade	Spring (Mar-May)	White, Blue	Moist	Facultative -	1
<i>Viola sp. (rotundifolia, hastata, )</i>	Violet	Low (<1ft)	Full Sun to Partial Shade	Spring (Apr-May)	Yellow, Violet	Moist	Upland	7
<i>Waldsteinia fragarioides</i>	Barren strawberry	Low (0-1ft)	Partial Shade	Spring (Apr-May)	Yellow	Moist-Dry	Upland	6
<i>Acorus americanus</i>	Sweet Flag	Medium (1-3ft)	Full Sun to Partial Shade	Late Spring (May-Jun)	Yellow, Green	Wet	Obligate Wetland	6
<i>Actaea pachypoda</i>	Doll's Eyes (White Baneberry)	Medium (1-3ft)	Shade	Late Spring (May-Jun)	White	Dry	Upland	7
<i>Ageratina altissima</i>	White Snakeroot	Medium (1-4ft)	Full Sun to Partial Shade	Summer (Jul-Sep)	White	Moist	Facultative	3
<i>Allium cernuum</i>	Nodding Wild Onion	Medium (1-3ft)	Full Sun to Shade	Summer (Jul-Aug)	Purple	Moist-Dry	Facultative Upland	5

Scientific Name	Common Name	Maximum Height	Light tolerance	Bloom Time	Bloom Color	Soil Moisture Tolerance	Wetland Indicator Status	C of C
<i>Anaphalis margaritacea</i>	Western Pearly-everlasting	Medium (1-3ft)	Full Sun to Partial Shade	Summer (Jun-Oct)	White, yellow	Dry	Upland	5
<i>Anemone virginiana</i>	Thimbleweed	Medium (1-3ft)	Full Sun to Partial Shade	Summer (Jul-Aug)	White	Moist	Facultative	3
<i>Apocynum cannabinum</i>	Dogbane (Indian Hemp)	Medium (1-3ft)	Full Sun to Partial Shade	Summer (Jun-Jul)	White	Moist	Facultative	1
<i>Aquilegia canadensis</i>	Wild Columbine	Medium (2-3ft)	Full Sun to Shade	Spring (Apr-Jun)	Orange, Yellow	Moist	Facultative	6
<i>Arisaema dracontium</i>	Green Dragon	Medium (1-3ft)	Shade	Spring (Apr-Jun)	Green, yellow	Wet-Moist	Facultative Wetland -	5
<i>Arisaema triphyllum</i> subsp. <i>triphyllum</i>	Jack-in-the-Pulpit	Medium(1-3ft)	Full Sun to Partial Shade	Spring (Apr-Jun)	Green	Moist	Facultative -	3
<i>Asclepias sullivantii</i>	Sullivant's Milkweed	Medium (2-3ft)	Full Sun to Partial Shade	Summer (Jun-Aug)	Pink	Dry	Upland	8
<i>Asclepias tuberosa</i>	Butterfly Weed	Medium (1-3ft)	Full Sun	Summer (Jun-Aug)	Orange, Yellow	Dry, Sand	Upland	4
<i>Asclepias verticillata</i>	Whorled Milkweed	Medium (1-3ft)	Full Sun to Partial Shade	Summer (Jul-Sep)	White	Dry	Upland	4
<i>Astragalus canadensis</i>	Canada Milk Vetch	Medium (1-3ft)	Full Sun to Partial Shade	Summer (May-Jul)	Cream	Moist	Facultative	3
<i>Baptisia tinctoria</i>	Yellow-False Indigo	Medium (1-3ft)	Full Sun	Summer (May-Aug)	Yellow	Dry	Upland	6
<i>Bidens frondosa</i>	Spanish Needles	Medium (1-3ft)	Partial Shade	Summer (Jul-Aug)	Yellow	Moist	Facultative Wetland	2
<i>Blephilia hirsuta</i>	Hairy Woodmint	Medium (1-3ft)	Full Sun to Partial Shade	Summer (Jun-Sep)	White	Moist	Facultative -	4
<i>Camassia scilloides</i>	Wild Hyacinth	Medium (1-3ft)	Full Sun or Shade	Late Spring (May-Jun)	Lavender	Moist	Facultative	6
<i>Caulophyllum thalictroides</i>	Blue Cohosh	Medium (1-3ft)	Shade	Spring (Apr-May)	Yellow, Brown	Moist	Upland	7
<i>Chamaecrista fasciculata</i>	Showy Partridge Pea	Medium (1-3ft)	Full Sun to Partial Shade	Summer (Jul-Sep)	Yellow	Moist-Dry	Facultative Upland	3
<i>Chelone glabra</i>	Turtlehead	Medium (2-4ft)	Full Sun to Partial Shade	Summer (Jul-Sep)	White	Wet	Obligate Wetland	6
<i>Cryptotaenia canadensis</i>	Canadian Honewort	Medium (1-3ft)	Partial Shade	Summer (Jun-Sep)	White	Moist	Facultative	3
<i>Dalea purpurea</i>	Purple Prairie Clover	Medium (1-3ft)	Full Sun to Partial Shade	Summer (Jul-Aug)	Purple	Dry	Upland	9
<i>Desmodium paniculatum</i>	Showy Tick Trefoil	Medium (1-3ft)	Full Sun to Partial Shade	Summer (Jul-Aug)	Pink	Dry	Upland	3

Scientific Name	Common Name	Maximum Height	Light tolerance	Bloom Time	Bloom Color	Soil Moisture Tolerance	Wetland Indicator Status	C of C
<i>Echinacea purpurea</i>	Purple Coneflower	Medium (1-3ft)	Full Sun	Summer (Jun-Sep)	Purple	Dry	Upland	6
<i>Euphorbia corollata</i>	Flowering Spurge	Medium (1-3ft)	Full Sun	Summer (Jun-Aug)	White	Dry	Upland	4
<i>Eurybia macrophylla</i>	Big Leaf Aster	Medium (1-3ft)	Partial Shade	Fall (Aug-Oct)	White	Dry	Upland	5
<i>Euthamia graminifolia</i>	Flat-Topped Goldenrod	Medium (1-4ft)	Full Sun to Partial Shade	Summer (Jul-Sep)	Yellow	Moist	Facultative	2
<i>Froelichia floridana</i>	Large Cottonweed	Medium (1-3ft)	Full Sun	Summer (Jul-Sep)	White	Dry, Sand	Upland	2
<i>Gnaphalium obtusifolium</i>	Fragrant Cudweed	Medium (1-3ft)	Full Sun	Summer (Jul-Sep)	Cream	Dry	Upland	2
<i>Helianthus occidentalis</i>	Western Sunflower	Medium (2-3ft)	Full Sun to Partial Shade	Summer (Jul-Sep)	Yellow	Dry	Upland	7
<i>Hypericum punctatum</i>	Spotted St John's Wort	Medium (1-3ft)	Partial Shade	Summer (Jun-Jul)	Yellow	Moist	Facultative -	2
<i>Impatiens capensis</i>	Jewelweed	Medium (1-3ft)	Partial Shade	Summer (Jul-Sep)	Orange	Wet-Moist	Facultative Wetland	2
<i>Iris versicolor</i>	Blueflag Iris	Medium (1-3ft)	Full Sun to Partial Shade	Summer (May-Jul)	Blue, Purple	Wet	Obligate Wetland	6
<i>Iris virginica</i>	Southern Blue Flag	Medium (1-3ft)	Full Sun to Partial Shade	Summer (May-Jul)	Blue, Yellow	Wet	Obligate Wetland	6
<i>Justicia americana</i>	Water Willow	Medium (1-3ft)	Full Sun to Partial Shade	Summer (May-Sep)	White, Pink	Wet	Obligate Wetland	9
<i>Lespedeza hirta</i>	Hairy Bush-Clover	Medium (2-4ft)	Full Sun to Partial Shade	Summer (Jul-Sep)	White, Green	Dry, Sand	Upland	5
<i>Liatris aspera</i>	Rough Blazing Star	Medium (1-4ft)	Full Sun to Partial Shade	Summer (Jul-Sep)	Lavender	Dry	Upland	6
<i>Liatris cylindracea</i>	Cylindrical Blazing Star	Medium (1-3ft)	Full Sun	Summer (Jul-Sep)	Lavender	Dry, Sand	Upland	8
<i>Liatris squarrosa</i>	Scaly Blazing Star	Medium (1-3ft)	Full Sun	Summer (Jul-Sep)	Lavender	Dry	Upland	8
<i>Lobelia cardinalis</i>	Cardinal Flower	Medium (2-5ft)	Partial Shade	Summer (Jul-Sep)	Red	Wet-Moist	Facultative Wetland +	5
<i>Lobelia inflata</i>	Indian Tobacco	Medium (1-3ft)	Full to Partial Shade	Summer (Jun-Oct)	Purple	Moist	Facultative Upland	1
<i>Lobelia siphilitica</i>	Great Blue Lobelia	Medium (1-3ft)	Full Sun to Partial Shade	Summer (Jul-Sep)	Blue	Wet-Moist	Facultative Wetland +	3
<i>Ludwigia alternifolia</i>	Seedbox	Medium (1-3ft)	Full Sun	Summer (Jun-Sep)	Yellow	Wet-Moist	Facultative Wetland +	3

Scientific Name	Common Name	Maximum Height	Light tolerance	Bloom Time	Bloom Color	Soil Moisture Tolerance	Wetland Indicator Status	C of C
<i>Lupinus perennis</i>	Wild Lupine	Medium (1-2ft)	Full Sun to Partial Shade	Late Spring (May-Jun)	Blue	Dry, Sand	Upland	7
<i>Lysimachia ciliata</i>	Fringed Loosestrife	Medium (1-3ft)	Partial Shade	Summer (Jun-Sep)	Yellow	Wet-Moist	Facultative Wetland	4
<i>Lysimachia lanceolata</i>	Lance-Leaved Loosestrife	Medium (1-3ft)	Full Sun to Partial Shade	Late Spring (May-Jun)	Yellow	Wet-Moist	Facultative Wetland +	6
<i>Lysimachia terrestris</i>	Swamp Candles	Medium (1-3ft)	Partial Shade	Summer (Jun-Aug)	Yellow	Wet	Obligate Wetland	6
<i>Lysimachia thyrsiflora</i>	Tufted Loosestrife	Medium (1-3ft)	Full Sun to Shade	Late Spring (May-Jun)	Yellow	Wet	Obligate Wetland	6
<i>Mentha arvensis</i>	Wild Mint	Medium (1-3ft)	Partial Shade	Summer (Jul-Sep)	White, Purple	Wet-Moist	Facultative Wetland	2
<i>Mertensia virginica</i>	Bluebells	Medium (1-3ft)	Full to Partial Shade	Spring (Apr-Jun)	Blue, Pink	Wet-Moist	Facultative Wetland	6
<i>Mimulus ringens</i>	Common Monkey Flower	Medium (1-3ft)	Full Sun to Partial Shade	Summer (Jun-Sep)	Blue, Purple	Wet	Obligate Wetland	4
<i>Mitella diphylla</i>	Bishop's Cap	Medium (1-3ft)	Shade	Spring (Apr-Jun)	White	Moist	Facultative Upland	6
<i>Monarda fistulosa</i>	Wild Bergamot	Medium (2-4ft)	Full Sun to Partial Shade	Summer (Jul-Sep)	Purple, Pink	Dry	Upland	3
<i>Monarda didyma</i>	Bee Balm	Medium (1-3ft)	Full Sun to Partial Shade	Summer (Jun-Aug)	Red	Moist	Facultative +	6
<i>Monarda punctata</i>	Dotted Mint	Medium (1-3ft)	Full Sun to Partial Shade	Summer (Jul-Sep)	Lavender	Dry, Sand	Upland	7
<i>Packera aurea</i>	Golden Ragwort	Medium (1-3ft)	Full Sun to Shade	Spring (Apr-Jun)	Yellow	Wet-Moist	Facultative Wetland	4
<i>Packera obovata</i>	Round-leaf Ragwort	Medium (1-3ft)	Partial Shade	Spring (Apr-Jun)	Yellow	Moist	Facultative -	4
<i>Peltandra virginica</i>	Arrow arum	Medium (1-3ft)	Full Sun	Spring (Apr-May)	Green	Wet	Obligate Wetland	5
<i>Penstemon digitalis</i>	Foxglove Beard-Tounge	Medium (1-3ft)	Full Sun to Partial Shade	Summer (Jun-Sep)	White	Moist	Facultative	2
<i>Penstemon hirsutus</i>	Hairy Penstemon	Medium (1-3ft)	Full Sun to Shade	Summer (Jun-Jul)	Pink, Purple	Dry	Upland	3
<i>Persicaria amphibia</i>	Water Smartweed	Medium (1-3ft)	Full Sun	Summer (Jun-Sep)	Pink, Red	Wet	Obligate Wetland	4
<i>Podophyllum peltatum</i>	Mayapple	Medium (1-3ft)	Full to Partial Shade	Late Spring (May-Jun)	White	Moist	Facultative	4
<i>Polemonium reptans</i>	Jacob's Ladder	Medium (1-3ft)	Shade	Late Spring (May-Jun)	Blue	Moist	Facultative	5

Scientific Name	Common Name	Maximum Height	Light tolerance	Bloom Time	Bloom Color	Soil Moisture Tolerance	Wetland Indicator Status	C of C
<i>Pontederia cordata</i>	Pickereel Weed	Medium (1-3ft)	Full Sun	Spring (Apr-May)	White, Blue	Wet	Obligate Wetland	6
<i>Potentilla arguta</i>	Tall Cinquefoil	Medium (1-3ft)	Full Sun to Partial Shade	Summer (Jun-Jul)	White	Dry	Upland	5
<i>Potentilla norvegica</i>	Rough Cinquefoil	Medium (1-3ft)	Full Sun	Summer (Jun-Aug)	Yellow	Moist	Facultative Upland	1
<i>Pycnanthemum verticillatum var. pilosum</i>	Hairy Mountain-Mint	Medium (2-4ft)	Full Sun to Partial Shade	Summer (Jul-Aug)	White	Moist	Facultative	5
<i>Pycnanthemum virginianum</i>	Virginia Mountain Mint	Medium (2-3ft)	Full Sun to Partial Shade	Summer (Jun-Sep)	White	Moist	Facultative	4
<i>Rudbeckia hirta</i>	Black-Eyed Susan	Medium (1-3ft)	Full Sun	Summer (Jun-Sep)	Yellow	Moist-Dry	Facultative Upland	1
<i>Sagittaria latifolia</i>	Common Arrowhead	Medium (1-3ft)	Full Sun	Summer (Jul-Sep)	White	Wet	Obligate Wetland	1
<i>Saururus cernuus</i>	Lizard's tail	Medium (1-3ft)	Shade	Summer (May-Aug)	White	Wet	Obligate Wetland	8
<i>Silene regia</i>	Royal Catchfly	Medium (2-4ft)	Full Sun to Shade	Summer (Jul-Aug)	Red	Dry	Upland	8
<i>Solidago caesia</i>	Blue-stemmed Goldenrod	Medium (1-3ft)	Full Sun to Partial Shade	Summer (Jul-Sep)	Yellow	Dry	Facultative	5
<i>Solidago flexicaulis</i>	Zig Zag Goldenrod	Medium (1-3ft)	Full Sun to Shade	Summer (Jul-Oct)	Yellow	Moist	Facultative Upland	5
<i>Solidago nemoralis</i>	Gray Goldenrod	Medium (1-3ft)	Full Sun	Fall (Aug-Oct)	Yellow	Dry	Upland	2
<i>Solidago riddellii</i>	Riddell's Goldenrod	Medium (1-3ft)	Full Sun	Fall (Aug-Oct)	Yellow	Wet	Obligate Wetland	8
<i>Solidago speciosa</i>	Showy Goldenrod	Medium (2-3ft)	Full Sun to Partial Shade	Fall (Aug-Oct)	Yellow	Dry, Sand	Upland	5
<i>Solidago ulmifolia</i>	Elm-Leaved Goldenrod	Medium (2-6ft)	Partial Shade	Summer (Jul-Oct)	Yellow	Dry	Upland	5
<i>Sparganium americanum</i>	American Bur-Reed	Medium (1-3ft)	Full Sun	Summer (May-Aug)	Yellow, Green	Wet	Obligate Wetland	6
<i>Stylophorum diphyllum</i>	Wood Poppy	Medium (1-3ft)	Full to Partial Shade	Spring (Apr-May)	Orange, Yellow	Dry	Upland	6
<i>Symphotrichum cordifolium</i>	Blue Wood Aster	Medium (1-3ft)	Partial Shade	Fall (Sep-Oct)	Purple	Dry	Upland	4
<i>Symphotrichum ericoides</i>	White Heath Aster	Medium (1-3ft)	Full Sun to Partial Shade	Fall (Aug-Oct)	White	Moist	Facultative	2
<i>Symphotrichum laeve</i>	Smooth Aster	Medium (1-3ft)	Full Sun to Partial Shade	Fall (Aug-Oct)	Blue	Dry	Upland	6

Scientific Name	Common Name	Maximum Height	Light tolerance	Bloom Time	Bloom Color	Soil Moisture Tolerance	Wetland Indicator Status	C of C
<i>Symphotrichum lanceolatum</i>	Lance-leaf Aster	Medium (1-3ft)	Full Sun to Partial Shade	Fall (Aug-Oct)	White	Wet-Moist	Facultative Wetland	3
<i>Symphotrichum lateriflorum</i>	Calico Aster	Medium (1-3ft)	Full to Partial Shade	Fall (Aug-Oct)	White	Wet-Moist	Facultative Wetland -	2
<i>Symphotrichum oolentangiense</i>	Sky Blue Aster	Medium (1- 3ft)	Full Sun to Shade	Fall (Sep-Oct)	Blue, Purple	Dry	Upland	7
<i>Symphotrichum puniceum</i>	Purplestem Aster	Medium (1-3ft)	Full Sun	Fall (Aug-Oct)	White, Purple	Wet	Obligate Wetland	7
<i>Symphotrichum racemosum</i>	Small-flower Aster	Medium (1-3ft)	Shade	Fall (Aug-Oct)	White, Yellow	Wet-Moist	Facultative Wetland	2
<i>Symphotrichum shortii</i>	Short's aster	Medium (1-3ft)	Full to Partial Shade	Fall (Sep-Oct)	Purple	Moist	Upland	4
<i>Symplocarpus foetidus</i>	Skunk Cabbage	Medium (1-3ft)	Full Sun to Partial Shade	Spring (Mar-Apr)	Green, Brown	Wet	Obligate Wetland	7
<i>Tephrosia virginiana</i>	Goat's Rue	Medium (1-3ft)	Partial Shade	Summer (Jun-Jul)	Pink, Cream	Dry, Sand	Upland	6
<i>Teucrium canadense</i>	American Germanader	Medium (1-3ft)	Partial Shade	Summer (May-Aug)	White	Moist	Facultative Wetland -	3
<i>Thaspium barbinode</i>	Hairy-joint Meadow-parsnip	Medium (1-3ft)	Full Sun to Partial Shade	Late Spring (May-Jun)	Yellow	Moist	Facultative	4
<i>Tiarella cordifolia</i>	Foam Flower	Medium (1-3ft)	Shade	Spring (Apr-Jun)	White	Moist	Facultative -	6
<i>Tradescantia ohioensis</i>	Ohio Spiderwort	Medium (2-4ft)	Full Sun	Spring (May-Jul)	Blue, Violet	Moist	Facultative	5
<i>Uvularia grandiflora</i>	Largeflower Bellwort	Medium (1-3ft)	Shade	Spring (May)	Yellow	Moist	Upland	5
<i>Verbena stricta</i>	Hoary Vervain	Medium (2-3ft)	Full Sun	Summer (Jun-Sep)	Purple	Dry	Upland	3
<i>Zizia aurea</i>	Golden Alexanders	Medium (1-3ft)	Full Sun to Partial Shade	Spring (Apr-Jun)	Yellow	Moist	Facultative	6
<i>Agrimonia parviflora</i>	Small-Flowered Agrimony	Tall (3-6ft)	Shade	Summer (Jun-Aug)	Yellow	Moist	Facultative	2
<i>Antennaria neglecta</i>	Field Pussytoes	Tall (3-6ft)	Full Sun to Partial Shade	Late Spring (May-Jun)	White	Moist	Facultative -	1
<i>Aralia racemosa</i>	American Spikenard	Tall ( 3-6ft)	Full Sun	Summer (Jun-Jul)	White	Dry	Upland	5
<i>Aruncus dioicus</i>	Goat's beard	Tall (3-6ft)	Full Sun to Shade	Late Spring (May-Jun)	White	Moist	Facultative	6
<i>Asclepias incarnata</i>	Swamp Milkweed	Tall (3-6ft)	Full Sun	Summer (Jul-Aug)	Pink, Purple	Wet	Obligate Wetland	4

Scientific Name	Common Name	Maximum Height	Light tolerance	Bloom Time	Bloom Color	Soil Moisture Tolerance	Wetland Indicator Status	C of C
<i>Asclepias syriaca</i>	Common Milkweed	Tall (3-6ft)	Full Sun	Summer (Jun-Aug)	Purple	Moist-Dry	Facultative Upland -	1
<i>Baptisia australis</i>	Blue False Indigo	Tall (3-6ft)	Full Sun	Summer (Jun-Jul)	Blue, purple	Moist-Dry	Facultative Upland -	6
<i>Baptisia lactea</i>	White False Indigo	Tall (3-4ft)	Full Sun to Partial Shade	Summer (Jun-Jul)	White	Moist	Facultative	8
<i>Boltonia asteroides</i>	False Aster	Tall (3-5ft)	Full Sun to Partial Shade	Fall (Aug-Oct)	White	Wet-Moist	Facultative Wetland	7
<i>Cacalia atriplicifolia</i>	Pale Indian Plaintain	Tall (3-6ft)	Full Sun to Partial Shade	Summer (Jul-Sep)	White	Dry	Upland	6
<i>Campanula americana</i>	Tall Bellflower	Tall (3-6ft)	Partial Shade	Summer (Jun-Aug)	Blue, Purple	Moist	Facultative	4
<i>Cimicifuga racemosa</i>	Black Snakeroot (Black Cohosh)	Tall (3-6ft)	Shade	Summer (May-Aug)	White	Moist-Dry	Facultative Upland	7
<i>Cirsium discolor</i>	Pasture Thistle	Tall (3-6ft)	Full Sun to Partial Shade	Summer (Jun-Sep)	Purple	Dry	Upland	4
<i>Cirsium muticum</i>	Swamp thistle	Tall (3-6ft)	Full Sun	Summer (Jul-Sep)	White, Purple	Moist	Obligate Wetland	8
<i>Coreopsis tripteris</i>	Tall Tickseed	Tall (3-6ft)	Full Sun	Summer (Jul-Oct)	Yellow	Moist	Facultative	5
<i>Decodon verticillatus</i>	Swamp Loosestrife (Water willow)	Tall (3-6ft)	Full Sun to Partial Sun	Summer (Jul-Sep)	Pink, Purple	Wet	Obligate Wetland	6
<i>Desmodium canadense</i>	Canada Tick-Trefoil	Tall (3-6ft)	Full Sun	Summer (Jun-Sep)	Pink, Purple	Moist	Facultative	4
<i>Doellingeria umbellata</i>	Flat-Topped White Aster	Tall (3-6ft)	Full Sun to Shade	Fall (Aug-Oct)	White	Wet-Moist	Facultative Wetland	3
<i>Eryngium yuccifolium</i>	Rattlesnake Master	Tall (3-6ft)	Full Sun	Summer (Jun-Aug)	White	Moist	Facultative	7
<i>Eupatorium altissimum</i>	Tall Boneset	Tall (3-6ft)	Full Sun to Partial Shade	Summer (Jul-Oct)	White	Dry	Upland	0
<i>Eupatorium perfoliatum</i>	Boneset	Tall (3-6ft)	Full Sun	Summer (Jul-Sep)	White	Wet-Moist	Facultative Wetland +	3
<i>Eupatorium serotinum</i>	Late Boneset	Tall (3-6ft)	Full Sun to Partial Shade	Summer (Jul-Oct)	White	Moist	Facultative -	2
<i>Eutrochium maculatum</i>	Spotted Joe-Pye Weed	Tall (3-6ft)	Full Sun	Summer (Aug- Sep)	Red, Purple	Wet-Moist	Facultative Wetland	6
<i>Eutrochium purpureum</i>	Sweet Joe Pye-Weed	Tall (3-6ft)	Partial Shade	Summer (Aug-Sep)	Pink, Purple	Moist	Facultative	5
<i>Filipendula rubra</i>	Queen of the Prairie	Tall (4-6ft)	Full Sun to Partial Shade	Summer (Jun-Jul)	Pink	Wet-Moist	Facultative Wetland	8



Scientific Name	Common Name	Maximum Height	Light tolerance	Bloom Time	Bloom Color	Soil Moisture Tolerance	Wetland Indicator Status	C of C
<i>Helenium autumnale</i>	Common Sneezeweed	Tall (3-6ft)	Full Sun to Partial Shade	Fall (Aug-Oct)	Yellow	Wet-Moist	Facultative Wetland +	4
<i>Helianthus divaricatus</i>	Woodland Sunflower	Tall (3-6ft)	Full Sun to Partial Shade	Fall (Aug-Oct)	Yellow	Wet-Moist	Facultative Wetland +	4
<i>Helianthus mollis</i>	Ashy Sunflower	Tall (3-6ft)	Full Sun to Partial Shade	Fall (Aug-Sep)	Yellow	Dry	Upland	7
<i>Heliopsis helianthoides</i>	Smooth Oxeye	Tall (3-6ft)	Full Sun	Summer (Jun-Sep)	Yellow	Dry	Upland	5
<i>Hibiscus Laevis</i>	Halberd-Leaved Rose Mallow	Tall (3-6ft)	Full Sun to Partial Shade	Fall (Aug-Sep)	Pink, White	Wet	Obligate Wetland	7
<i>Hibiscus moscheutos</i>	Swamp Mallow	Tall (3-6ft)	Full Sun	Summer (Jul-Sep)	White, Pink	Wet	Obligate Wetland	4
<i>Hypericum pyramidatum</i>	Great St. John's Wort	Tall (3-6ft)	Full Sun	Summer (Jul-Aug)	Yellow	Moist	Facultative	7
<i>Lespedeza capitata</i>	Round-Headed Bush-Clover	Tall (3-6ft)	Full Sun to Partial Shade	Summer (Jul-Sep)	White, Green	Moist	Facultative -	5
<i>Liatris spicata</i>	Spiked Blazing Star	Tall (3-6ft)	Full Sun	Summer (Aug-Sep)	Purple	Moist	Facultative +	7
<i>Lilium superbum</i>	Turk's Cap Lily	Tall (3-6ft)	Full Sun to Partial Shade	Summer (Jun-Aug)	Orange	Wet-Moist	Facultative Wetland +	8
<i>Oenothera biennis</i>	Common Evening Primrose	Tall (3-6ft)	Full Sun to Shade	Summer (Jul-Sep)	Yellow	Moist	Facultative -	1
<i>Physostegia virginiana</i>	Obedient Plant	Tall (3-6ft).	Full Sun to Shade	Summer (Aug-Sep)	Pink, Purple	Moist	Facultative +	5
<i>Ratibida pinnata</i>	Gray-Headed Coneflower	Tall (3-6ft)	Full Sun	Summer (Jun-Sep)	Yellow	Dry	Upland	5
<i>Rudbeckia laciniata</i>	Green-Headed Coneflower	Tall (3-6ft)	Full Sun to Shade	Summer (Jul-Sep)	Yellow	Wet-Moist	Facultative Wetland	6
<i>Rudbeckia triloba</i>	Three-Lobed Coneflower	Tall (3-6ft)	Full Sun to Shade	Summer (Jul-Oct)	Yellow	Moist-Dry	Facultative upland	5
<i>Scrophularia marilandica</i>	Late Figwort	Tall (3-6ft)	Full Sun to Partial Shade	Summer (Jun-Oct)	Red, Green	Moist	Facultative Upland -	4
<i>Senna hebecarpa</i>	Northern Wild Senna (Wild Senna)	Tall (3-6ft)	Full Sun to Partial Shade	Summer (Jul-Aug)	Yellow	Moist	Facultative	4
<i>Silphium laciniatum</i>	Compass Plant	Tall (3-6ft)	Full Sun to Partial Shade	Summer (Jun-Sep)	Yellow	Dry	Upland	8
<i>Silphium perfoliatum</i>	Cup Plant	Tall (3-6ft)	Full Sun	Summer (Jul-Sep)	Yellow	Moist	Facultative	6
<i>Silphium trifoliatum</i>	Carpenter's Square	Tall (3-6ft)	Full Sun to Partial Shade	Summer (Jul-Sep)	Yellow	Moist-Dry	Facultative	5



Scientific Name	Common Name	Maximum Height	Light tolerance	Bloom Time	Bloom Color	Soil Moisture Tolerance	Wetland Indicator Status	C of C
<i>Sium suave</i>	Water Parsnip	Tall (3-6ft)	Full Sun to Shade	Summer (Jul-Sep)	White	Wet	Obligate Wetland	6
<i>Solidago canadensis</i>	Canada Goldenrod	Tall (3-6ft)	Full Sun to Partial Shade	Fall (Sep-Nov)	Yellow	Moist-Dry	Facultative Upland	1
<i>Solidago juncea</i>	Early Goldenrod	Tall (3-6ft)	Full Sun to Shade	Summer (Jun-Aug)	Yellow	Moist-Dry	Upland	2
<i>Solidago rigida</i>	Stiff Goldenrod	Tall (3-6ft)	Full Sun	Fall (Aug-Oct)	Yellow	Dry	Upland	8
<i>Solidago rugosa</i>	Rough Goldenrod	Tall (3-6ft)	Full Sun	Fall (Sep)	Yellow	Moist	Facultative	2
<i>Sparganium eurycarpum</i>	Giant Bur-reed	Tall (3-6ft)	Partial Shade	Summer (Jun-Aug)	Green	Wet	Obligate Wetland	4
<i>Symphotrichum firmum</i>	Smooth swamp aster	Tall (3-6ft)	Full Sun	Fall (Aug-Oct)	White, Blue	Wet-Moist	Obligate Wetland	7
<i>Symphotrichum novae-angliae</i>	New England Aster	Tall (3-6ft)	Full Sun	Fall (Aug-Oct)	Purple	Wet-Moist	Facultative Wetland -	2
<i>Thalictrum pubescens</i>	Tall Meadow-Rue	Tall (3-8ft)	Full Sun to Partial Shade	Summer (Jul-Sep)	White	Wet-Moist	Facultative Wetland +	5
<i>Verbena hastata</i>	Blue Vervain	Tall (3-6ft)	Full Sun	Summer (Jul-Sep)	Blue, Purple	Wet-Moist	Facultative Wetland +	4
<i>Verbena urticifolia</i>	White Vervain	Tall (3-6ft)	Full Sun to Partial Shade	Summer (Jun-Oct)	White	Moist	Facultative Upland	3
<i>Verbesina alternifolia</i>	Wingstem	Tall (3-6ft)	Full Sun to Partial Shade	Summer (Jul-Oct)	Yellow	Moist	Facultative	5
<i>Vernonia fasciculata</i>	Western Ironweed	Tall (3-6ft)	Full Sun to Shade	Summer (Aug-Sep)	Purple, Red	Moist	Facultative +	8
<i>Vernonia gigantea</i>	Tall Ironweed	Tall (3-6ft)	Full Sun to Partial Shade	Summer (Jul-Sep)	Purple	Moist	Facultative	2
<i>Vernonia noveboracensis</i>	New York Ironweed	Tall (3-6ft)	Full Sun	Summer (Aug-Sep)	Red, Purple	Wet-Moist	Facultative Wetland +	3
<i>Veronicastrum virginicum</i>	Culver's Root	Tall (3-6ft)	Full Sun to Partial Shade	Summer (Jun-Aug)	White	Moist	Facultative	7
<i>Amorpha fruticosa</i>	False Indigo	Extra Tall (8 -12ft)	Full Sun to Partial Shade	Summer (Jun-Aug)	Purple	Wet-Moist	Facultative Wetland	3
<i>Eutrochium fistulosum</i>	Hollow Joe-Pye-Weed	Extra Tall (8 -12ft)	Full Sun to Partial Shade	Summer (Jul-Sep)	Rose	Wet-Moist	Facultative Wetland	6
<i>Helianthus giganteus</i>	Swamp Sunflower	Extra Tall (8 -12ft)	Full Sun to Partial Shade	Summer (Jul-Sep)	Yellow	Wet-Moist	Facultative Wetland	6
<i>Helianthus grosseserratus</i>	Sawtooth Sunflower	Extra Tall (8 -12ft)	Full Sun to Partial Shade	Fall (Aug-Oct)	Yellow	Wet-Moist	Facultative Wetland	4
<i>Helianthus tuberosus</i>	Jerusalem Artichoke	Extra Tall (8 -12ft)	Full Sun	Summer (Jul-Sep)	Yellow	Moist	Facultative	3
<i>Silphium terebinthinaceum</i>	Prairie Dock	Extra Tall (8 -12ft)	Full Sun to Partial Shade	Summer (Jul-Sep)	Yellow	Dry	Upland	8

**Table 2: Ohio native grasses, sedges and rushes species list and traits.** These are generalized plant characteristics: variability occurs in height, bloom time, bloom color, soil moisture, and sun/shade tolerance.

	Plants listed as rare in the state of Ohio
	Native Plants of the Year as designated by LEAP
Color Key for Plant Heights	
	Low ( under 1ft)
	Medium ( 1 to 3ft)
	Tall ( 3 to 6ft)
	Extra Tall (over 6ft)

Scientific Name	Common Name	Form	Maximum Height	Light Tolerance	Bloom Time	Bloom Color	Soil Moisture Tolerance	Wetland Indicator Status	Clumping or Spreading	C of C
<i>Deschampsia flexuosa</i>	Wavy Hair-grass	Grass	Low (0-1ft)	Partial Shade	Summer (Jul-Sep)	Green	Dry	Upland	Clumping	8
<i>Bouteloua curtipendula</i>	Sideoats Grama Grass	Grass	Medium (1-3ft)	Full Sun to Shade	Summer (Jul-Sep)	Red, Orange, Yellow	Dry	Upland	Spreading	8
<i>Calamagrostis canadensis</i>	Bluejoint Grass	Grass	Medium (1-3ft)	Full Sun	Summer (Jun-Aug)	Green	Wet-Moist	Facultative Wetland +	Spreading	4
<i>Diarrhena americana</i>	American Beak Grass	Grass	Medium (1-3ft)	Shade	Summer (Jun-Aug)	Green	Moist	Facultative +	Spreading	7
<i>Elymus hystrix</i>	Bottlebrush Grass	Grass	Medium (1-3ft)	Full Sun to Shade	Summer (June-Aug)	Green	Dry	Upland	Clumping but spreads easily	4
<i>Elymus macgregorii</i>	Early Wildrye	Grass	Medium (1-3ft)	Full to Partial Shade	Late Spring (May-Jun)	Green	Wet-Moist	Facultative Wetland	Clumping	6
<i>Elymus virginicus</i>	Virginia Wild Rye	Grass	Medium (1-3ft)	Full Sun to Shade	Late Spring (May-June)	Yellow	Wet-Moist	Facultative Wetland -	Spreading	3
<i>Eragrostis spectabilis</i>	Purple Love Grass	Grass	Medium (1-3ft)	Full Sun to Partial Shade	Fall (Aug-Oct)	Red, Purple	Dry, Sand	Upland	Spreading	2
<i>Glyceria canadensis</i>	Rattlesnake Manna Grass	Grass	Medium (1-3ft)	Full Sun	Summer (Jun-Jul)	Green	Wet	Obligate Wetland	Clumping	7

Scientific Name	Common Name	Form	Maximum Height	Light Tolerance	Bloom Time	Bloom Color	Soil Moisture Tolerance	Wetland Indicator Status	Clumping or Spreading	C of C
<i>Glyceria striata</i>	Fowl Manna Grass	Grass	Medium (1-3ft)	Full Sun to Shade	Summer (Jun-Jul)	Green	Wet	Obligate Wetland	Clumping	2
<i>Koeleria pyramidata</i>	June Grass	Grass	Medium (1-3ft)	Full Sun	Late Spring (May-Jun)	Yellow	Dry, Sand	Upland	Clumping	10
<i>Muhlenbergia mexicana</i>	Mexican Muhly	Grass	Medium (1-3ft)	Full Sun	Summer (Jul -Aug)	Green	Moist	Facultative Wetland	Spreading	4
<i>Panicum rigidulum</i>	Redtop Panicgrass	Grass	Medium (1-3ft)	Full Sun	Summer (Jul-Aug)	Green	Moist	Facultative Wetland +	Spreading and Clumping	5
<i>Schizachyrium scoparium</i>	Little Bluestem	Grass	Medium (1-3ft)	Full Sun to Shade	Summer (Aug-Sep)	White, Green, Brown	Moist-Dry	Facultative Upland -	Clumping	5
<i>Sporobolus cryptandrus</i>	Sand Dropseed	Grass	Medium (1-3ft)	Full Sun	Summer (Jun-Oct)	Yellow	Dry, Sand	Upland	Clumping	6
<i>Sporobolus heterolepis</i>	Prairie Dropseed	Grass	Medium (1-3ft)	Full Sun	Summer (Jun-Aug)	Pink, Yellow, Green, Brown	Dry	Upland	Clumping	8
<i>Andropogon virginicus</i>	Broomsedge	Grass	Tall (3-6ft)	Partial Shade	Fall (Sept-Nov)	Yellow	Moist	Facultative Upland	Clumping	3
<i>Bromus pubescens</i>	Hairy Woodland Brome	Grass	Tall (3-6ft)	Full to Partial Shade	Summer (May-Jul)	Green	Moist	Facultative Upland	Clumping	4
<i>Chasmanthium latifolium</i>	Wild River Oats	Grass	Tall (3-6ft)	Shade	Summer (Jun-Sep)	Green	Moist-Dry	Facultative upland	Clumping	7
<i>Cinna arundinacea</i>	Wood-reed	Grass	Tall (3-6ft)	Shade	Summer (Jul-Sep)	Green	Wet-Moist	Facultative Wetland	Spreading	4
<i>Dichanthelium clandestinum</i>	Deertongue	Grass	Tall (3-6ft)	Full Sun	Summer (May-Sep)	N/A	Wet	Facultative +	Spreading and Clumping	2
<i>Elymus canadensis</i>	Canada Wild-Rye	Grass	Tall (3-6ft)	Full Sun to Shade	Summer (Jul-Sep)	Yellow, Green, Brown	Moist-Dry	Facultative Upland +	Clumping and Spreads Aggressively	6
<i>Elymus riparius</i>	Riverbank Wildrye	Grass	Tall (3-6ft)	Full to Partial Shade	Summer (Jul)	Yellow	Moist	Facultative Wetland	Clumping	5
<i>Elymus villosus</i>	Hairy Wildrye	Grass	Tall (3-6ft)	Full to Partial Shade	Summer (Jul)	Green	Moist-Dry	Facultative Upland -	Clumping	4
<i>Glyceria grandis</i>	Tall Manna Grass	Grass	Tall (3-6ft)	Full Sun	Summer (Jun-Jul)	Green	Wet	Obligate Wetland	Clumping	7
<i>Panicum virgatum</i>	Switch Grass	Grass	Tall (3-6ft)	Full Sun	Summer (Aug-Sep)	Green, Brown	Moist	Facultative	Clumping	4
<i>Scirpus cyperinus</i>	Wool-Grass	Grass	Tall (3-6ft)	Full Sun	Summer (Jun-Sep)	Green, Brown	Wet-Moist	Facultative Wetland +	Clumping	1
<i>Spartina pectinata</i>	Prairie Cord Grass	Grass	Tall (3-6ft)	Full Sun	Summer (Jun)	Yellow	Wet	Obligate Wetland	Spreading	5

Scientific Name	Common Name	Form	Maximum Height	Light Tolerance	Bloom Time	Bloom Color	Soil Moisture Tolerance	Wetland Indicator Status	Clumping or Spreading	C of C
<i>Sorghastrum nutans</i>	Indian Grass	Grass	Tall (3-6ft)	Full Sun to Partial Shade	Fall (Aug-Oct)	Yellow	Dry	Upland	Clumping	5
<i>Tridens flavus</i>	Purpletop Tridens	Grass	Tall (3-6ft)	Partial Shade	Fall (Aug-Nov)	Purple	Dry	Facultative Upland	Spreading	1
<i>Andropogon gerardii</i>	Big Bluestem	Grass	Extra Tall (>6ft)	Full Sun to Shade	Fall (Aug-Oct)	Red, Blue, Brown	Moist	Facultative	Clumping	5
<i>Carex communis</i>	Fibrousroot Sedge	Sedge	Low (0-1ft)	Full Sun to Partial Shade	Spring (Apr-Jun)	N/A	Moist	Upland	Clumping	4
<i>Carex glaucodea</i>	Blue Wood Sedge	Sedge	Low (0-1ft)	Partial Shade	Late Spring (May-Jun)	N/A	Moist	Facultative	Clumping	5
<i>Carex hirtifolia</i>	Pubescent Sedge	Sedge	Low (0-1ft)	Shade	Summer (May-Jul)	N/A	Moist-Dry	Upland	Spreading and Somewhat Clumping	3
<i>Carex laxiculmis</i> var. <i>laxiculmis</i>	Spreading Sedge	Sedge	Low (0-1ft)	Shade	Summer (Jun-Jul)	N/A	Wet-Moist	Upland	Spreading and Clumping	3
<i>Carex platyphylla</i>	Broad-Leaved Wood Sedge	Sedge	Low (0-1ft)	Shade	Spring (May)	N/A	Dry	Upland	Clumping	6
<i>Carex woodii</i>	Pretty Sedge	Sedge	Low (0-1ft)	Partial Shade	Spring (Apr-May)	N/A	Moist	Upland	Spreading	7
<i>Carex brevior</i>	Tufted-Fescue Sedge	Sedge	Medium (1-3ft)	Full Sun	Summer (Jun-Jul)	N/A	Dry	Upland	Clumping	8
<i>Carex careyana</i>	Carey's Sedge	Sedge	Medium (1-3ft)	Partial Shade	Spring (Apr-Jun)	N/A	Moist	Upland	Spreading and Clumping	7
<i>Carex crinita</i>	Drooping Sedge	Sedge	Medium (1-3ft)	Full Sun to Partial Shade	Late Spring (May-Jun)	N/A	Wet	Obligate Wetland	Clumping	3
<i>Carex cristatella</i>	Crested Sedge	Sedge	Medium (1-3ft)	Full Sun to Partial Shade	Summer (Jun-Aug)	N/A	Wet-Moist	Facultative Wetland	Spreading	3
<i>Carex davisii</i>	Davis' Sedge	Sedge	Medium (1-3ft)	Partial Shade	Summer (May-Jul)	N/A	Moist	Facultative -	Spreading	5
<i>Carex frankii</i>	Frank's Sedge	Sedge	Medium (1-3ft)	Full Sun to Shade	Summer (Jun-Aug)	N/A	Wet	Obligate Wetland	Spreading	2
<i>Carex gracilescens</i>	Slender Sedge	Sedge	Medium (1-3ft)	Full to Partial Shade	Spring (Apr-Jun)	N/A	Moist-Dry	Upland	Spreading and Clumping	3
<i>Carex gracillima</i>	Graceful Sedge	Sedge	Medium (1-3ft)	Partial Shade	Spring (Apr-Jul)	N/A	Wet-Moist	Facultative Upland	Clumping	4
<i>Carex grayi</i>	Gray's Sedge	Sedge	Medium (1-3ft)	Shade	Summer (May-Aug)	N/A	Wet-Moist	Facultative Wetland +	Clumping	5
<i>Carex hirsutella</i>	Hairy-leaved Sedge	Sedge	Medium (1-3ft)	S Full to Partial shade	Spring (April-May)	N/A	Dry	Facultative Upland	Spreading	2

Scientific Name	Common Name	Form	Maximum Height	Light Tolerance	Bloom Time	Bloom Color	Soil Moisture Tolerance	Wetland Indicator Status	Clumping or Spreading	C of C
<i>Carex hystericina</i>	Porcupine Sedge	Sedge	Medium (1-3ft)	Full Sun to Shade	Late Spring (May-Jun)	N/A	Wet	Obligate Wetland	Clumping	5
<i>Carex lacustris</i>	Lake Sedge	Sedge	Medium (1-3ft)	Full Sun to Shade	Late Spring (May-Jun)	N/A	Wet	Obligate Wetland	Strongly Spreading	5
<i>Carex lupulina</i>	Hop Sedge	Sedge	Medium (1-3ft)	Partial Shade	Summer (Jun-Aug)	N/A	Wet	Obligate Wetland	Spreading	3
<i>Carex lurida</i>	Bottlebrush Sedge	Sedge	Medium (1-3ft)	Partial Shade	Summer (Jun)	N/A	Wet	Obligate Wetland	Spreading and Clumping	3
<i>Carex molesta</i>	Troublesome Sedge	Sedge	Medium (1-3ft)	Full Sun to Shade	Summer (Jun-Jul)	N/A	Moist-Dry	Facultative Upland	Spreading and Clumping	3
<i>Carex muskingumensis</i>	Palm Sedge Grass	Sedge	Medium (1-3ft)	Full Sun to Shade	Late Spring (May-Jun)	N/A	Wet	Obligate Wetland	Spreading	7
<i>Carex pennsylvanica</i>	Pennsylvania Sedge	Sedge	Medium (1-3ft)	Full Sun to Shade	Spring (May)	N/A	Dry	Upland	Spreading	3
<i>Carex plantaginea</i>	Plantain Sedge	Sedge	Medium (1-3ft)	Shade	Spring (Apr-Jun)	N/A	Moist-Dry	Facultative Upland -	Clumping	8
<i>Carex radiata</i>	Radiate Sedge	Sedge	Medium (1-3ft)	Shade	Spring (Apr-May)	N/A	Moist	Facultative	Clumping	6
<i>Carex sparganioides</i>	Bur-reed Sedge	Sedge	Medium (1-3ft)	Full to Partial Shade	Late Spring (May-June)	N/A	Moist	Facultative Upland	Clumping	3
<i>Carex stipata</i>	Crowded Sedge	Sedge	Medium (1-3ft)	Full Sun to Partial Shade	Late Spring (May-Jun)	N/A	Wet	Obligate Wetland	Spreading	2
<i>Carex stricta</i>	Tussock Sedge	Sedge	Medium (1-3ft)	Full Sun	Late Spring (May-Jun)	N/A	Wet	Obligate Wetland	Spreading and Clumping	5
<i>Carex tuckermanii</i>	Tuckerman's Sedge	Sedge	Medium (1-3ft)	Partial Shade	Summer (Jun-Aug)	N/A	Wet-Moist	Obligate Wetland	Spreading and Clumping	8
<i>Carex vulpinoidea</i>	Fox Sedge	Sedge	Medium (1-3ft)	Full to Partial Shade	Late Spring (May-Jun)	N/A	Dry	Upland	Spreading and Clumping	1
<i>Carex bromoides</i>	Bromelike Sedge	Sedge	Tall (3-6ft)	Full Sun to Partial Shade	Spring (Apr-May)	N/A	Moist	Facultative Wetland	Clumping and Forms Colonies	7
<i>Carex comosa</i>	Bearded Sedge	Sedge	Tall (3-6ft)	Full Sun	Summer (Jul-Aug)	N/A	Wet	Obligate Wetland	Clumping	2
<i>Carex emoryi</i>	Emory's Sedge	Sedge	Tall (3-6ft)	Full Sun to Partial Shade	Late Spring (May-Jun)	N/A	Wet	Obligate Wetland	Spreading and Densely Clumping	8

Scientific Name	Common Name	Form	Maximum Height	Light Tolerance	Bloom Time	Bloom Color	Soil Moisture Tolerance	Wetland Indicator Status	Clumping or Spreading	C of C
<i>Carex normalis</i>	Large Straw Sedge	Sedge	Tall (3-6ft)	Full Sun	Summer (May-July)	N/A	Moist	Facultative	Clumping	4
<i>Schoenoplectus pungens</i>	Common Three-square	Sedge	Tall (3-6ft)	Full Sun	Spring (Apr-May)	Brown	Wet-Moist	Facultative Wetland +	Spreading	5
<i>Schoenoplectus tabernaemontani</i>	Soft-Stemmed Bulrush	Sedge	Tall (3-6ft)	Full Sun	Spring (Apr-May)	Red	Wet	Obligate Wetland	Spreading	2
<i>Scirpus atrovirens</i>	Green Bulrush	Sedge	Tall (3-6ft)	Full Sun	Summer (Jun-Jul)	Green, Brown	Wet	Obligate Wetland	Spreading	1
<i>Juncus effusus</i>	Soft Rush	Rush	Medium (1-3ft)	Full Sun	Summer (Jun-Jul)	Green, Brown	Wet-Moist	Facultative Wetland +	Spreading and Clumping	1
<i>Juncus torreyi</i>	Torrey's Rush	Rush	Medium (1-3ft)	Full Sun	Summer (Jul-Oct)	Green	Wet-Moist	Facultative Wetland	Spreading	3

**Table 3: Ohio native fern species list and traits.** These are generalized plant characteristics: variability occurs in height, soil moisture, and sun/shade tolerance.

	Plants listed as rare in the state of Ohio
	Native Plants of the Year as designated by LEAP
Color Key for Plant Heights	
	Low ( under 1ft)
	Medium ( 1 to 3ft)
	Tall ( 3 to 6ft)
	Extra Tall (over 6ft)

Scientific Name	Common Name	Maximum Height	Light Tolerance	Bloom Time	Bloom Color	Soil Moisture Tolerance	Wetland Indicator Status	C of C
<i>Dryopteris intermedia</i>	Intermediate woodfern	Low (0-1ft)	Shade	N/A	N/A	Moist	Facultative Upland	6
<i>Adiantum pedatum</i>	Maidenhair Fern	Medium (1-3ft)	Shade	Summer	N/A	Moist	Facultative -	6
<i>Athyrium filix-femina</i>	Lady Fern	Medium (1-3ft)	Shade	Summer	N/A	Moist	Facultative	5
<i>Athyrium thelypteroides</i>	Silvery glade fern	Medium (1-3ft)	Full Sun to Shade	N/A	N/A	Moist	Facultative	6
<i>Cystopteris bulbifera</i>	Bulblet bladderfern	Medium (1-3ft)	Shade	Summer (Jun-Sep)	N/A	Moist	Facultative	7
<i>Cystopteris protrusa</i>	Lowland bladderfern	Medium (1-3ft)	Shade	Spring (Apr-May)	Green	Moist	Upland	5
<i>Cystopteris tenuis</i>	Upland brittle bladderfern	Medium (1-3ft)	Full to Partial Shade	N/A	N/A	Moist	Upland	5
<i>Dryopteris carthusiana</i>	Spinulose Shield Fern	Medium (1-3ft)	Shade	Summer	N/A	Wet-Moist	Facultative Wetland +	5
<i>Dryopteris cristata</i>	Crested woodfern	Medium (1-3ft)	Full Sun to Shade	N/A	N/A	Moist	Facultative Wetland +	8
<i>Dryopteris marginalis</i>	Marginal Shield Fern	Medium (1-3ft)	Shade	Summer	N/A	Moist-Dry	Facultative Upland -	5
<i>Onoclea sensibilis</i>	Sensitive Fern	Medium (1-3ft)	Full Sun to Shade	Summer	N/A	Wet-Moist	Facultative Wetland	2

Scientific Name	Common Name	Maximum Height	Light Tolerance	Bloom Time	Bloom Color	Soil Moisture Tolerance	Wetland Indicator Status	C of C
<i>Phegopteris hexagonoptera</i>	Broad beech fern	Medium (1-3ft)	Shade	N/A	N/A	Moist	Facultative	7
<i>Polystichum acrostichoides</i>	Christmas Fern	Medium (1-3ft)	Shade	Summer	N/A	Moist-Dry	Facultative Upland -	3
<i>Pteridium aquilinum</i>	Bracken Fern	Medium (1-3ft)	Full to Partial Shade	Summer	N/A	Moist	Facultative	1
<i>Thelypteris palustris</i>	Marsh Fern	Medium (1-3ft)	Full Sun	Summer	N/A	Wet-Moist	Facultative Wetland +	6
<i>Dennstaedtia punctilobula</i>	Hay-scented Fern	Tall (3-6ft)	Shade	Summer	N/A	Dry	Upland	6
<i>Equisetum hyemale</i>	Horsetail Rush	Tall (3-6ft)	Full Sun to Shade	N/A	N/A	Wet-Moist	Facultative Wetland	2
<i>Matteuccia struthiopteris</i>	Ostrich Fern	Tall (3-6ft)	Partial Shade	Summer	N/A	Wet-Moist	Facultative Wetland	6
<i>Osmunda cinnamomea</i>	Cinnamon Fern	Tall (3-6ft)	Shade	Summer	N/A	Wet-Moist	Facultative Wetland	6
<i>Osmunda claytoniana</i>	Interrupted Fern	Tall (3-6ft)	Shade	Summer (Jun)	Brown	Moist	Facultative	6
<i>Osmunda regalis</i>	Royal Fern	Tall (3-6ft)	Full Sun to Shade	Summer	N/A	Wet	Obligate Wetland	7



**Table 4: Ohio native vine species list and traits.** These are generalized plant characteristics: variability occurs in height, soil moisture, and sun/shade tolerance. Plants highlighted in yellow are state listed in Ohio – please be aware and use with limited application.

	Plants listed as rare in the state of Ohio
	Native Plants of the Year as designated by LEAP
Color Key for Plant Heights	
	Low ( under 1ft)
	Medium ( 1 to 3ft)
	Tall ( 3 to 6ft)
	Extra Tall (over 6ft)

Scientific Name	Common Name	Maximum Height	Light Tolerance	Bloom Time	Bloom Color	Soil Moisture Tolerance	Wetland Indicator Status	C of C
<i>Apios americana</i>	Ground nut	Low (0-1ft)	Shade	Summer (Jul-Sep)	Pink, Purple	Wet-Moist	Facultative Wet	3
<i>Amphicarpaea bracteata</i>	Hog peanut	Tall (3-6ft)	Partial Shade	Summer (Aug-Sep)	Purple	Moist	Facultative	4
<i>Clitoria mariana</i>	Butterfly Pea	Tall (3-6ft)	Full to Partial Shade	Summer (Jun-Aug)	Pink, Blue	Dry	Upland	6
<i>Campsis radicans</i>	Trumpet Vine	Extra Tall (>6ft)	Full Sun	Summer (Jun-Sep)	Red, Orange	Moist-Dry	Facultative	1
<i>Clematis virginiana</i>	Virgin's Bower	Extra Tall (>6ft)	Full Sun to Shade	Summer (Jul-Sep)	White, Green	Moist-Dry	Facultative	3
<i>Dioscorea villosa</i>	Wild Yam	Extra Tall (>6ft)	Full to Partial Shade	Spring (Apr-Jun)	White, Green	Wet-Moist	Facultative +	4
<i>Echinocystis lobata</i>	Wild Cucumber	Extra Tall (>6ft)	Full Sun to Shade	Summer (Jul, Aug)	Green, White	Wet-Moist	Facultative	2
<i>Lonicera dioica</i>	Wild Honeysuckle	Extra Tall (>6ft)	Full Sun to Shade	Late Spring (May-Jun)	Red, Yellow	Moist-Dry	Facultative Upland	5
<i>Menispermum canadense</i>	Moonseed	Extra Tall (>6ft)	Full Sun to Shade	Summer (Jun-Jul)	White, Green	Moist	Facultative Upland	5
<i>Parthenocissus quinquefolia</i>	Virginia Creeper	Extra Tall (>6ft)	Full to Partial Shade	Late Spring (May-Jun)	White, Green	Moist-Dry	Facultative Upland	2
<i>Vitis aestivalis</i>	Summer Grape	Extra Tall (>6ft)	Full Sun to Shade	Summer (May-Jul)	Green, White	Moist	Facultative Upland	4

**Table 5: Ohio native shrubs species list and traits.** These are generalized plant characteristics: variability occurs in height, bloom time, bloom color, soil moisture, and sun/shade tolerance.

	Plants listed as rare in the state of Ohio
	Native Plants of the Year as designated by LEAP
Color Key for Plant Heights	
	Low ( under 1ft)
	Medium ( 1 to 3ft)
	Tall ( 3 to 6ft)
	Extra Tall (over 6ft)

Scientific Name	Common Name	Maximum Height	Light Tolerance	Bloom Time	Bloom Color	Soil Moisture Tolerance	Wetland Indicator Status	C of C
Cornus canadensis	Bunchberry	Low (0-1ft)	Full Sun to Shade	Summer (Jun-Sep)	White	Moist	Facultative -	8
Gaultheria procumbens	American wintergreen	Low (0-1ft)	Partial Shade	Spring (Mar-May)	White	Moist-Dry	Facultative Upland	5
Ceanothus americanus	New Jersey Tea	Medium (1-3ft)	Full Sun to Partial Shade	Summer (Jun-Aug)	White	Dry	Upland	5
Diervilla lonicera	Bush-Honeysuckle	Medium (1-3ft)	Shade	Summer (Jun-Aug)	Red, Orange, Yellow	Dry	Upland	7
Hypericum prolificum	Shrubby St. John's Wort	Medium (1-3ft)	Full Sun	Summer (Jul-Aug)	Yellow	Moist	Facultative	3
Ledum groenlandicum	Labrador Tea	Medium (1-3ft)	Full Sun to Partial Shade	Summer (May-Aug)	White	Wet	Obligate Wetland	10
Rosa carolina	Pasture Rose	Medium (1-3ft)	Full Sun	Summer (Jul-Sep)	Pink	Dry, Sand	Upland	4
Rosa palustris	Swamp Rose	Medium (1-3ft)	Full Sun	Summer (Jul-Aug)	Pink	Wet	Obligate Wetland	5
Rubus odoratus	Flowering Raspberry	Medium (1-3ft)	Full Sun to Shade	Summer (Jun-Aug)	Pink, Purple	Dry	Upland	5
Vaccinium pallidum	Hillside blueberry	Medium (1-3ft)	Full Sun to Shade	Spring (Apr-May)	Green, Pink	Dry	Upland	6
Comptonia peregrina	Sweetfern	Tall (3-6ft)	Partial Shade	Summer (May-Jun)	White, Green, Brown	Dry, Sand	Upland	8
Cornus amomum	Silky Dogwood	Tall (3-6ft)	Full Sun to Partial Shade	Spring (May-Jul)	White	Wet-Moist	Facultative Wetland	2

Scientific Name	Common Name	Maximum Height	Light Tolerance	Bloom Time	Bloom Color	Soil Moisture Tolerance	Wetland Indicator Status	C of C
Nemopanthus mucronatus	Catberry	Tall (3-6ft)	Full Sun to Partial Shade	Summer (Jul-Aug)	White	Wet	Obligate Wetland	10
Prunus pumila	Sand Cherry	Tall (3-6ft)	Full Sun	Summer (Jun-Jul)	White	Dry, Sand	Upland	10
Spiraea alba	Meadow-Sweet	Tall (3-6ft)	Full Sun	Summer (Jun-Sep)	White	Wet-Moist	Facultative Wetland +	3
Symphoricarpos albus var. albus	Snowberry	Tall (3-6ft)	Full Sun to Shade	Summer (Jun-Jul)	White, Pink	Moist-Dry	Facultative Upland -	8
Alnus incana	Speckled Alder	Extra Tall (>6ft)	Full Sun	Late Spring (May-Jun)	Yellow, Green, Brown	Wet-Moist	Facultative Wetland +	6
Alnus serrulata	Smooth Alder	Extra Tall (>6ft)	Full Sun	Spring (Apr)	Red, Green, Brown	Wet	Obligate Wetland	6
Amelanchier arborea	Downy Serviceberry	Extra Tall (>6ft)	Full Sun to Partial Shade	Spring (Apr-May)	White	Moist	Facultative -	5
Amelanchier laevis	Allegheny Serviceberry	Extra Tall (>6ft)	Full Sun to Shade	Spring (Mar-May)	White	Moist	Facultative	5
Aralia spinosa	Devil's Walkingstick	Extra Tall (>6ft)	Partial Shade	Summer (Jun-Aug)	White	Moist	Facultative	5
Asimina triloba	Paw-Paw	Extra Tall (>6ft)	Full Sun to Shade	Spring (Apr-May)	Purple	Moist	Facultative +	6
Calycanthus floridus	Sweet Shrub	Extra Tall (>6ft)	Partial Shade	Summer (May-Jul)	Red	Dry	Facultative Upland	6
Cephalanthus occidentalis	Buttonbush	Extra Tall (>6ft)	Full Sun	Summer (Jun-Aug)	White	Wet	Obligate Wetland	6
Cercis canadensis	Redbud	Extra Tall (>6ft)	Full Sun to Shade	Spring (Apr-May)	Magenta	Moist	Facultative -	3
Cornus drummondii	Rough-Leaved Dogwood	Extra Tall (>6ft)	Shade	Spring (Apr-Jun)	White	Moist	Facultative	3
Cornus racemosa	Gray Dogwood	Extra Tall (>6ft)	Full Sun to Shade	Late Spring (May-Jun)	White, Green	Moist	Facultative -	1
Cornus sericea	Red-Osier Dogwood	Extra Tall (>6ft)	Full Sun	Late Spring (May-Jun)	Creamy White	Wet-Moist	Facultative Wetland +	3
Corylus americana	American Hazelnut	Extra Tall (>6ft)	Shade	Spring (Apr-May)	Brown, Red	Moist	Facultative -	4
Euonymus americanus	American Strawberry Bush	Extra Tall (>6ft)	Partial Shade	Spring (May- Jun)	Green	Moist	Facultative	6
Euonymus atropurpureus	Burning-Bush	Extra Tall (>6ft)	Partial Shade	Spring (April -Jun)	Purple	Moist-Dry	Facultative Upland	3
Hamamelis virginiana	Witch-hazel	Extra Tall (>6ft)	Partial Shade	Fall (Oct-Nov)	Yellow	Moist	Facultative -	5

Scientific Name	Common Name	Maximum Height	Light Tolerance	Bloom Time	Bloom Color	Soil Moisture Tolerance	Wetland Indicator Status	C of C
Hydrangea arborescens	Wild Hydrangea	Extra Tall (>6ft)	Partial Shade	Summer (Jun-Aug)	White	Moist	Facultative	7
Ilex verticillata	Winterberry	Extra Tall (>6ft)	Full Sun to Shade	Summer (May-Jul)	White	Wet-Moist	Facultative Wetland +	6
Lindera benzoin	Spice Bush	Extra Tall (>6ft)	Shade	Spring (Apr-May)	Yellow	Wet-Moist	Facultative Wetland -	5
Morella pensylvanica	Northern Bayberry	Extra Tall (>6ft)	Partial Shade	Summer (Jul-Oct)	Yellow	Moist	Facultative	10
Physocarpus opulifolius	Ninebark	Extra Tall (>6ft)	Full Sun to Partial Shade	Spring (May-Jun)	White, Pink	Wet-Moist	Facultative Wetland -	4
Ptelea trifoliata	Wafer Ash	Extra Tall (>6ft)	Full Sun	Spring (Apr)	White	Dry	Facultative	5
Rhododendron calendulaceum	Flame Azalea	Extra Tall (>6ft)	Partial Shade	Late Spring (May-Jun)	Red, Orange, Yellow	Dry	Upland	8
Rhododendron periclymenoides	Pinkster-Flower	Extra Tall (>6ft)	Partial Shade	Spring (Mar-May)	White, Pink	Moist	Facultative	7
Rhododendron prinophyllum	Roseshell Azalea	Extra Tall (>6ft)	Partial Shade	Late Spring (May-Jun)	Pink, Purple	Moist	Facultative	7
Rhus aromatica var. aromatica	Fragrant Sumac	Extra Tall (>6ft)	Full Sun to Shade	Spring (April -Jun)	Yellow	Dry	Upland	3
Rhus typhina	Staghorn Sumac	Extra Tall (>6ft)	Full Sun to Shade	Summer (Jun-Jul)	Red, Yellow, Green	Dry	Upland	2
Salix discolor	Pussy Willow	Extra Tall (>6ft)	Full Sun	Spring (Mar-May)	Gray, Silver	Moist	Facultative Wetland	3
Salix exigua	Sandbar Willow	Extra Tall (>6ft)	Full Sun to Partial Shade	Spring (Mar-Apr)	White, Yellow	Wet	Obligate Wetland	1
Salix sericea	Silky Willow	Extra Tall (>6ft)	Full Sun to Partial Shade	Spring (Apr)	Green	Wet	Obligate Wetland	4
Sambucus canadensis	Common Elderberry	Extra Tall (>6ft)	Full Sun to Shade	Late Spring (May-Jun)	White	Wet-Moist	Facultative Wetland -	3
Staphylea trifolia	Bladdernut	Extra Tall (>6ft)	Shade	Spring (Apr-May)	White	Moist	Facultative	6
Vaccinium corymbosum	High Bush Blueberry	Extra Tall (>6ft)	Shade	Late Spring (May-Jun)	White	Wet-Moist	Facultative Wetland -	6
Viburnum cassinoides	WitheRod	Extra Tall (>6ft)	Full Sun to Shade	Summer (Jun-Jul)	White	Wet-Moist	Facultative Wetland	5
Viburnum lentago	Nannyberry	Extra Tall (>6ft)	Full Sun to Shade	Spring (Apr-Jun)	White	Moist	Facultative	5
Viburnum prunifolium	Black-Haw	Extra Tall (>6ft)	Partial Shade	Spring (Apr-May)	White	Moist-Dry	Facultative Upland	4

**Table 6: Ohio native tree species list and urban environment tolerance ratings.** These are generalized characteristics and tolerance levels for various stressors common urban and landscape environments. The box below defines the each stress factor and describes the condition levels of tolerance. Growing conditions were filled in based on available information and may not be complete for every condition.

	Plants listed as rare in the state of Ohio
	Native Plants of the Year as designated by LEAP

**Relative Tolerance to Urban Stress**

- High - Tree can adapt to a variety of urban conditions and will grow well
- Medium - Tree can adapt to a few urban conditions and will generally grow well
- Low - Tree will not grow well in the urban environment

**Salt Tolerance:**

- Sensitive - Intolerant to either aerial salt spray and/or salt being present in the soil
- Tolerant - Tolerant to both aerial salt spray and salt being present in the soil
- Tolerant to Salt in Soil - Trees will not become stressed when salt is present in the soil
- Tolerant to Aerial Salt Spray - Trees will not become stressed when salt drifts in the air

**Heat Tolerance:**

- Sensitive - Tree will become stressed from increased temperatures due to urban heat island effects
- Tolerant - Tree will not become stressed from increased temperatures due to urban heat island effects

**Drought Tolerance:**

- Sensitive - Tree will become stressed during periods of drought
- Tolerant - Tree will not become stressed during periods of drought

**Soil Compaction Tolerance:**

- Sensitive - Tree will become stressed from soil being compacted
- Tolerant - Tree will not become stressed from soil being compacted

Scientific Name	Common Name	Maximum Height	Relative Tolerance to Urban Stress	Salt Tolerant	Soil Compaction Tolerance	Drought Tolerance	Heat Tolerance	Soil pH	C of C
<b>DECIDUOUS TREES</b>									
<i>Nyssa sylvatica</i>	Blackgum	Medium (30-60ft)	High	Tolerant	Tolerant	Tolerant		Acidic (pH<6.8)	7
<i>Acer negundo</i>	Box Elder	Medium (30-50ft)	High	Tolerant	Tolerant	Tolerant	Tolerant	Circumneutral (pH 6.8-7.2)	3
<i>Quercus macrocarpa</i>	Bur Oak	Large (70-100ft)	High	Tolerant	Tolerant	Tolerant	Tolerant	Acidic (pH<6.8)	6
<i>Populus deltoides</i>	Eastern Cottonwood	Large (70-100ft)	High	Tolerant	Tolerant	Tolerant		Circumneutral (pH 6.8-7.2)	3
<i>Gymnocladus dioicus</i>	Kentucky Coffee Tree	Large (70-100ft)	High	Tolerant	Tolerant	Tolerant	Tolerant	Circumneutral (pH 6.8-7.2)	3
<i>Quercus palustris</i>	Pin Oak	Large (70-100ft)	High	Tolerant	Tolerant	Tolerant		Acidic (pH<6.8)	5
<i>Betula nigra</i>	River Birch	Medium (30-50ft)	High	Tolerant	Tolerant		Tolerant	Circumneutral (pH 6.8-7.2)	9
<i>Platanus occidentalis</i>	American Sycamore	Large (70-100ft)	High	Tolerant to Salt in Soil	Tolerant	Tolerant		Circumneutral (pH 6.8-7.2)	7
<i>Carya cordiformis</i>	Bitternut Hickory	Medium (50-75ft)	High	Tolerant to Salt in Soil				Circumneutral (pH 6.8-7.2)	5
<i>Celtis occidentalis</i>	Hackberry	Large (60-100ft)	High	Tolerant to Salt in Soil	Tolerant	Tolerant	Tolerant	Circumneutral (pH 6.8-7.2)	4
<i>Gleditsia triacanthos</i>	Honey Locust	Medium (30-70ft)	High	Tolerant to Salt in Soil	Tolerant	Tolerant	Tolerant	Circumneutral (pH 6.8-7.2)	4
<i>Carya ovata</i>	Shagbark Hickory	Large (70-100ft)	High	Tolerant to Salt in Soil		Tolerant	Tolerant	Acidic (pH<6.8)	6
<i>Quercus bicolor</i>	Swamp White Oak	Large (70-100ft)	High	Tolerant to Salt in Soil	Tolerant			Acidic (pH<6.8)	7
<i>Quercus muehlenbergii</i>	Chinkapin Oak	Medium (50-75ft)	High	Tolerant to Aerial Salt Spray	Tolerant			Alkaline (pH>7.2)	7
<i>Amelanchier laevis</i>	Allegheny Serviceberry	Small (12-25ft)	High	Sensitive			Tolerant	Acidic (pH<6.8)	5
<i>Ulmus americana</i>	American Elm	Large (60-80ft)	High	Sensitive	Tolerant	Tolerant		Circumneutral (pH 6.8-7.2)	2
<i>Amelanchier arborea</i>	Downy Serviceberry	Small (12-25ft)	High	Sensitive			Tolerant	Acidic (pH<6.8)	5
<i>Carya laciniosa</i>	Pignut Hickory	Large (70-100ft)	High	Sensitive		Tolerant		Circumneutral (pH 6.8-7.2)	7
<i>Sassafras albidum</i>	Sassafras	Medium (30-50ft)	High	Sensitive		Tolerant		Acidic (pH<6.8)	3

Scientific Name	Common Name	Maximum Height	Relative Tolerance to Urban Stress	Salt Tolerant	Soil Compaction Tolerance	Drought Tolerance	Heat Tolerance	Soil pH	C of C
Ulmus rubra	Slippery Elm	Medium (40-60ft)	High	Sensitive	Tolerant			Circumneutral (pH 6.8-7.2)	3
Quercus velutina	Black Oak	Medium (50-60ft)	Medium	Tolerant	Sensitive	Tolerant		Acidic (pH<6.8)	7
Juglans nigra	Black Walnut	Medium (50-75ft)	Medium	Tolerant	Tolerant	Tolerant	Tolerant	Circumneutral (pH 6.8-7.2)	5
Quercus coccinea	Scarlet Oak	Large (70-100ft)	Medium	Tolerant	Sensitive			Acidic (pH<6.8)	6
Quercus rubra	Northern Red Oak	Large (70-100ft)	Medium	Tolerant to Salt in Soil	Tolerant	Tolerant	Tolerant	Acidic (pH<6.8)	6
Aesculus glabra	Ohio Buckeye	Medium (50-75ft)	Medium	Tolerant to Aerial Salt Spray				Acidic (pH<6.8)	6
Ostrya virginiana	Hop Hornbeam	Medium (30-50ft)	Medium	Sensitive	Tolerant			Circumneutral (pH 6.8-7.2)	5
Carpinus caroliniana	Ironwood	Medium (30-50ft)	Medium	Sensitive				Circumneutral (pH 6.8-7.2)	5
Acer rubrum	Red Maple	Medium (35-60ft)	Medium	Sensitive	Tolerant		Tolerant	Circumneutral (pH 6.8-7.2)	2
Cercis canadensis	Redbud	Small (10-25ft)	Medium	Sensitive	Tolerant	Tolerant	Sensitive	Circumneutral (pH 6.8-7.2)	3
Liriodendron tulipifera	Tulip Poplar	Large (70-120ft)	Medium	Sensitive	Sensitive			Acidic (pH<6.8)	6
Hamamelis virginiana	Witch-hazel	Small(12-36ft)	Medium	Sensitive				Acidic (pH<6.8)	5
Magnolia acuminata	Cucumber Magnolia	Medium (50-75ft)	Medium		Sensitive	Sensitive		Acidic (pH<6.8)	7
Liquidambar styraciflua	Sweetgum	Large (70-100ft)	Medium		Tolerant			Acidic (pH<6.8)	6
Populus grandidentata	Big-toothed Aspen	Medium (50-75ft)	Low	Tolerant	Sensitive			Acidic (pH<6.8)	2
Prunus serotina	Black Cherry	Medium (50-75ft)	Low	Tolerant	Sensitive			Circumneutral (pH 6.8-7.2)	3
Betula alleghaniensis	Yellow Birch	Large (60-100ft)	Low	Tolerant				Acidic (pH<6.8)	7
Quercus alba	White Oak	Large (70-100ft)	Low	Tolerant to Salt in Soil	Tolerant	Tolerant	Tolerant	Circumneutral (pH 6.8-7.2)	6
Tilia americana	American Basswood	Large (60-80ft)	Low	Sensitive	Sensitive			Circumneutral (pH 6.8-7.2)	6
Fagus grandifolia	American Beech	Medium (50-75ft)	Low	Sensitive	Sensitive		Sensitive	Acidic (pH<6.8)	7

Scientific Name	Common Name	Maximum Height	Relative Tolerance to Urban Stress	Salt Tolerant	Soil Compaction Tolerance	Drought Tolerance	Heat Tolerance	Soil pH	C of C
Acer saccharum	Sugar Maple	Medium (50-75ft)	Low	Sensitive	Sensitive		Sensitive	Circumneutral (pH 6.8-7.2)	5
Betula populifolia	Grey Birch	Medium (50-75ft)		Tolerant				Acidic (pH<6.8)	5
Larix laricina	Eastern Larch	Medium (50-75ft)		Sensitive				Acidic (pH<6.8)	9
Salix discolor	Pussy Willow	Small (10-25ft)		Sensitive				Circumneutral (pH 6.8-7.2)	3
Acer nigrum	Black Maple	Medium (50-75ft)			Tolerant			Acid-Neutral (pH 5.5-7.5)	5
Asimina triloba	Paw-Paw	Small (10-25ft)						Acid-Neutral (pH 5.5-7.0)	6
Salix amygdaloides	Peachleaf Willow	Medium (30-50ft)						Circumneutral (pH 6.8-7.2)	3
<b>EVERGREEN TREES</b>									
Juniperus virginiana	Eastern Redcedar	Small (20-40ft)	High	Tolerant		Tolerant	Tolerant	Acidic (pH<6.8)	3
Pinus strobus	White Pine	Large (70-100ft)	Medium	Sensitive	Sensitive	Tolerant		Acidic (pH<6.8)	6
Tsuga canadensis	Eastern Hemlock	Medium (40-70ft)	Low	Sensitive	Sensitive			Acidic (pH<6.8)	8
Myrica pensylvanica	Bayberry	(6-12ft)		Tolerant	Tolerant	Tolerant		Acid-Neutral (pH 5.5-7.5)	10
Ilex verticillata	Winterberry	(6-12ft)			Tolerant to Salt in Soil			Acidic (pH<6.8)	6
Ilex opaca	American Holly	Small (10-25ft)			Tolerant to Aerial Salt Spray		Tolerant	Acidic (pH<6.8)	*
Thuja occidentalis	Arborvitae	Small (20-40ft)						Circumneutral (pH 6.8-7.2)	9
Rhododendron periclymenoides	Rhododendron	(3-6ft)						Acidic (pH<6.8)	7
Kalmia latifolia	Mountain Laurel	Small (10-20ft)						Acidic (pH 4.5-5.5)	7



**Table 7: Definitions for the 5 wetland indicator categories as defined by the USDA (2008)**

<b>Wetland Indicator Status</b>	<b>Definition</b>
Obligate Wetland	Occurs almost always (estimated probability 99%) under natural conditions in wetlands.
Facultative Wetland	Usually occurs in wetlands (estimated probability 67%-99%), but occasionally found in non-wetlands.
Facultative	Equally likely to occur in wetlands or non-wetlands (estimated probability 34%-66%).
Facultative Upland	Usually occurs in non-wetlands (estimated probability 67%-99%), but occasionally found on wetlands (estimated probability 1%-33%).
Upland	Occurs in wetlands in another region, but occurs almost always (estimated probability 99%) under natural conditions in non-wetlands in the regions specified.
<b>Notes:</b>	A positive (+) or negative (-) sign was used with the Facultative Indicator categories to specifically define the regional frequency of occurrence in wetlands. The positive sign indicates a frequency toward the higher end of the category (more frequently found in wetlands), and a negative sign indicates a frequency toward the lower end of the category (less frequently found in wetlands).
	The wetland indicator categories should not be equated to degrees of wetness. Many obligate wetland species occur in permanently or semi-permanently flooded wetlands, but a number of obligates also occur in and some are restricted to wetlands which are only temporarily or seasonally flooded. The facultative upland species include a diverse collection of plants, which range from weedy species adapted to exist in a number of environmentally stressful or disturbed sites (including wetlands), to species in which a portion of the gene pool (an ecotype) always occurs in wetlands. Both the weedy and ecotype representatives of the facultative upland category occur in seasonally and semi-permanently flooded wetlands.

**Table 8: Broad definitions for the 5 categories of soil moisture tolerance**

<b>Soil Moisture Tolerance</b>	<b>Definition</b>
Wet	Soil can be saturated and has the ability to retain standing water for periods of time
Wet-Moist	Soil is generally less saturated and generally retains less standing water for shorter periods of time as compared to wet soils
Moist	Soil can be damp and does not normally retain standing water
Moist-Dry	Soil can be damp for periods of time and can retain little to no water for periods of time
Dry	Soil normally retains little to no water

**Table 9. Description of the coefficient of conservatism (C of C).** The C of C is a weighting factor that relates the degree of conservatism (or site fidelity) of a given species to all other species within the region. The C of C is scored on a 0-10 scale. (Andreas et al. 2004)

C of C Score	Description
0	Plants with a wide range of ecological tolerances. Often opportunistic invaders of natural areas or native taxa that are typically part of a ruderal community
1-2	Widespread taxa that are not typical of a particular community like <i>Solidago canadensis</i>
3-5	Plants with an intermediate range of ecological tolerances that typify a stable phase of some native community but persists under some disturbance
6-8	Plants with a narrow range of ecological tolerances that typify a stable or near “climax” community
9-10	Plants with a narrow range of ecological tolerances that exhibit relatively high degrees of fidelity to a narrow range of habitat requirements

## Native Plant Resources and References

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- USDA NRCS (2008) The PLANTS Database. National Plant Data Center, Baton Rouge, LA 70874-4490 USA Available via <http://plants.usda.gov>. Accessed 12 Nov 2010

## Additional resources for trees

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- Fountain, W.M. (2011) Trees and Compacted Soils. Cooperative Extension Service University of Kentucky College of Agriculture. Lexington, Ky. <http://www2.ca.uky.edu/agc/pubs/ho/ho93/ho93.pdf>
- Louks, P.C. Tree Species and their Tolerance to Construction Stress. A guide for builders, developers, landscapers, urban forestry consultants, urban foresters, and homeowners when determining which trees may survive construction stress if property protected during construction. Indiana Division of Natural Resources. [http://www.in.gov/dnr/forestry/files/fo-TreesandtheirTolerancetoConstructionStress\\_08.pdf](http://www.in.gov/dnr/forestry/files/fo-TreesandtheirTolerancetoConstructionStress_08.pdf)
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- Yiesla, S., Schuster, J., and Paulsrud B. Selecting Trees for your Home. University of Illinois Extension. Grayslake, Illinois 60030. <http://extension.illinois.edu/treeselector/search.cfm> Accessed March 2016

