

Native Trees of the Midwest for the Home Landscape

A native plant is considered to be a species that existed in an area prior to the arrival of European settlers, as opposed to a naturalized plant, which has been introduced into a new habitat by human influence. Native trees are part of the rich and complex relationships among plants, animals, insects, and microorganisms in natural ecosystems (woodlands, prairies, wetlands, etc.) of the Midwest. The diversity of native trees provides interesting textures, colors, shapes, flowers, and foliage. Planting native species is a way to re-establish natural diversity and restore our regional landscapes, and they help to sustain habitats for many of our native birds and insects.

Uses in the Landscape

- Provide food and shelter for wildlife
- Promote plant diversity
- Provide shade
- Create privacy or a sense of enclosure
- Define boundaries
- Screen unwanted views
- Muffle noise
- Provide a focal point in the landscape

Advantages of Native Trees

- When properly planted, native trees have the advantage of being adapted to Midwest growing conditions: they are vigorous and hardy, enabling them to survive cold winters and hot, dry summers
- Once established, native trees are more adapted to resist the negative effects of insect and disease problems
- Using native trees in the landscape, or in combination with cultivated plants, enhances our natural surroundings

Factors to consider

Mature size and growth rate

Many factors, including soil, moisture, and hardiness affect tree size. A tree in its native habitat may reach 100 feet, whereas growing in your home landscape it may only reach 35 to 40 feet. The accompanying chart reflects the average size in the home landscape at maturity. When selecting a plant, consideration should be given to the ultimate height and width of the plant, and how it will eventually fill the landscape.

In newer residential areas, people often select trees that grow quickly. Although they are desirable for their rapid contribution to the landscape, fast-growing trees are often shorter-lived, more susceptible to disease and insect problems, and more likely to break from wind and ice.

Types of shade

The leaf and branching patterns of different tree species produce different kinds of shade. At maturity, some will create fairly deep shade, limiting what will grow beneath them, while others may create a light, filtered shade. Trees with dense canopies make more shade and are the best screens for an unwanted view.

Ornamental traits

Some trees develop outstanding bark, have showy fruit, flowers, or foliage, or attractive fall color. Many trees, however, drop flowers, seeds, or nuts, which may be a maintenance consideration if the tree is planted near a patio, deck, entry, walk, or driveway. Trees planted close enough to shade a house will also likely drop their leaves and seeds into the gutters, requiring periodic inspection and cleaning. It's important to assess your willingness to do these tasks before selecting a site and a tree.

Availability

Native plants should not be removed from the wild, but purchased from commercial nurseries. Collecting in the wild damages plant habitat and may deplete natural plant communities. Most retail nurseries and garden centers sell only plants that are familiar and popular, or ones that are easy to propagate in large quantities. Less familiar native plants are likely to be available only from smaller nurseries or those that specialize in native plants. If you have trouble locating a specific plant, contact The Morton Arboretum's Plant Clinic or Sterling Morton Library, for catalog information.

Trees to avoid

Some native trees have qualities that make them undesirable for planting in the home landscape. They may be prone to breaking, have messy fruit or thorns, or be more susceptible to insect and disease problems. Among the native trees not recommended for planting in the home landscape: black locust (*Robinia pseudoacacia*), black cherry (*Prunus serotina*), boxelder (*Acer negundo*), choke cherry (*Prunus virginiana*), dotted hawthorn (*Crataegus punctata*), eastern cottonwood (*Populus deltoides*), pin cherry (*Prunus pensylvanica*), and Washington hawthorn (*Crataegus phaenopyrum*).

The chart provides information about the size and other important characteristics of native trees recommended by The Morton Arboretum for their suitability and desirability in the Midwest. All trees listed are native to Illinois.

NATIVE TREES OF THE MIDWEST for the HOME LANDSCAPE

Large Trees (over 40 feet)

<i>Botanical Name</i>	Common Name	Height	Spread	Form	Rate	Zone	Cultural/Comments
<i>Acer nigrum</i>	Black Maple	60-70'	50-75'	Upright oval	S	4-8	Sun to part shade; well-drained soil; higher heat & drought tolerance than sugar maple; salt sensitive
<i>Acer saccharum</i> ³	Sugar Maple	60-70'	40-50'	Oval to rounded	S	4-8	Sun to dense shade; prefers a rich, well-drained soil; sensitive to drought, salt, and compact soils; many cultivars available
<i>Betula nigra</i>	River Birch	40-70'	40-60'	Rounded to spreading	M/F	4-9	Full sun to part shade; native along rivers and stream banks; develops chlorosis in high pH soil and drought conditions
<i>Carya cordiformis</i> <i>1</i>	Bitternut Hickory	50-75'	30-40'	Broadly Columnar	S	4-9	Sun or shade; native on moist or dry slopes; transplant in spring only
<i>Carya ovata</i> ²	Shagbark Hickory	60-80'	40-50'	Irregular oval	M/F	4-8	Sun to shade; found on dry slopes and low, well-drained woods; drought tolerant; long-lived
<i>Celtis occidentalis</i>	Hackberry	40-60'	40-50'	Broad oval to vase	M/F	3-9	Full sun; prefers rich, moist soils; pH adaptable; tolerant of drought, salt, and temporary wet sites; corky bark
<i>Cladrastis kentukea</i> (<i>C.lutea</i>)	Yellowwood	30-50'	40-50'	Broadly rounded	M	4-8	Sun; native on limestone cliffs and north-facing slopes; tolerant of clay soils; fragrant white flowers; yellow fall color
<i>Diospyros virginiana</i>	Persimmon	35-60'	20-35'	Oval to rounded	S	5-9	Sun; prefers well-drained soil; can form thickets; blocky bark; large, fleshy orange fruit attractive but messy; male trees available
<i>Gleditsia triacanthos</i>	Honey Locust	40-70'	40-70'	Broad vase	F	4-9	Sun; prefers moist, well-drained soil; tolerant of drought, road salt, high pH, heat, and compacted soil; yellow fall color; plant thornless varieties;
<i>Gymnocladus dioicus</i>	Kentucky Coffeetree	50-60'	40-50'	Broadly rounded	S	4-8	Sun to part shade; best in moist soil; tolerant of drought and city conditions; yellow fall color; thick seedpods of female tree offer winter interest
<i>Juglans nigra</i> ²	Black Walnut	50-70'	30-50'	Broadly rounded to oval	M	4-9	Sun; prefers deep fertile, moist, well-drained soil; tolerant of drought, high pH soils; all parts of tree produce juglone, toxic to some plants
<i>Liquidambar styraciflua</i>	Sweet Gum	60-70'	30-45'	Pyramidal to rounded	M/F	5-9	Sun; prefers deep, acidic soil; slow to establish; star-shaped leaves; red to purple fall color; "gumball" fruits can be messy; 'Moraine' recommended for northern Illinois
<i>Liriodendron tulipifera</i>	Tulip-Tree	70-90'	35-50'	Pyramidal to rounded	M/F	4-9	Sun; prefers moist, well-drained soil; drought sensitive; goblet-shaped orangish-green flowers; unusual tulip-shaped leaves turn yellow in fall; spring plant only
<i>Magnolia acuminata</i>	Cucumber Magnolia	50-80'	50-60'	Pyramidal to rounded	M/F	4-8	Sun to light shade; moist, well-drained soil; protect from wind or heat; will not tolerate extreme wet or drought soils; large, yellow-green flowers; attractive pinkish-red fruit pods
<i>Nyssa sylvatica</i> ¹	Tupelo, Black Gum	30-50'	20-30'	Pyramidal to spreading	S	4-9	Full sun to part shade; native in wet areas or dry, rocky uplands; horizontal branching; brilliant red fall color; spring plant only

<i>Pinus strobus</i>	Eastern White Pine	50-80'	20-40'	Spreading	F	2-7	Sun; moist acidic soil; sensitive to high pH soil, salt, and windy sites; blue-green needles; open airy crown
<i>Platanus occidentalis 2</i>	Sycamore, American Planetree	75-100'	50-75'	Irregular spreading	M/F	4-9	Sun to part shade; found in bottomlands and along riverbanks; tolerant of high pH soil; mottled creamy-white bark; do not grow near septic fields
<i>Quercus alba</i>	White Oak	50-80'	50-80'	Broadly rounded	S	3-9	Sun; requires moist, slightly acidic soil; sensitive to soil disturbances and poor drainage; mulch beneficial for root system; lobed leaves turn red to wine fall color; state tree of Illinois
<i>Quercus bicolor</i>	Swamp White Oak	50-60'	50-60'	Broadly rounded	M	4-8	Sun; found in moist bottomlands and river banks; chlorosis symptoms in high pH soils; tolerant of urban conditions
<i>Quercus macrocarpa</i>	Bur Oak	70-80'	80-90'	Broadly spreading	S	3-8	Sun; very adaptable to most soil and pH conditions; hardiest of the oaks; excellent tree for large area
<i>Quercus muhlenbergii 1</i>	Chinkapin Oak	40-50'	50-70'	Rounded	S	5-7	Sun; found on dry limestone bluffs; tolerant of drought and alkaline soil; attractive foliage and branching
<i>Quercus rubra</i>	Northern Red Oak	60-80'	60-75'	Broadly rounded	M	3-7	Sun to part shade; prefers slightly acidic, well-drained soils; develops chlorosis symptoms in high pH; tolerant of salt and air pollution; russet-red fall color; susceptible to oak wilt, prune only in dormant season
<i>Taxodium distichum</i>	Bald Cypress	50-70'	20-30'	Pyramidal	M	4-10	Sun; adaptable to wet, dry, or swampy locations; chlorosis symptoms with high pH; deciduous, sage-green leaves turn a russet brown in fall before dropping; transplants well as a container specimen
<i>Tilia americana</i>	American Linden, Basswood	60-80'	30-40'	Oval to rounded	M	3-8	Sun to part shade; prefers deep, fertile soil; heart-shaped leaves; fragrant flowers in June; dense shade tree
<i>Thuja occidentalis</i>	Eastern Arborvitae	40-60'	10-15'	Broad pyramidal	S/M	3-7	Sun to part shade; evergreen; native to rocky, upland sites; tolerant of temporary flooding; foliage favorite of deer and rabbits; many cultivars available
Intermediate-Sized Trees (25-40 feet)							
<i>Aesculus glabra</i>	Ohio Buckeye	20-40'	25-40'	Broadly rounded	M	4-7	Full sun to part shade; native in moist habitats; showy yellowish flowers in spring; prickly fruit favorite of squirrels
<i>Carpinus caroliniana</i>	American Hornbeam	25-35'	20-30'	Rounded	S	3-9	Sun to dense shade; best in rich, moist soil; mulch in full sun; winged nuts provide a good food source for wildlife; orange-red fall color

<i>Ostrya virginiana</i>	Ironwood, Hop-hornbeam	25-40'	15-20'	Rounded	S	3-9	Sun to shade; found in dry, gravelly soil as a understory tree; sensitive to salt and poorly drained soil; interesting hop-like seedpods; yellow fall color
<i>Sassafras albidum</i>	Sassafras	30-60'	25-40'	Pyramidal to rounded	F	4-9	Sun to part shade; moist, slightly acidic, well-drained soil; forms thickets; aromatic, mitten-shaped leaves change to yellow orange, and purple in fall; good for naturalizing; spring plant only
Small Ornamental Trees (15-25 feet)							
<i>Aesculus pavia</i> 1	Red Buckeye	10-20'	15-20'	Rounded to spreading	S	4-8	Full sun to part shade; prefers well-drained soil; maintain cool root system with mulch; attractive red flower spikes in early spring
<i>Amelanchier laevis</i>	Allegheny Serviceberry	15-25'	15-20'	Oval	M	4-8	Sun to part shade; needs well-drained soil; sensitive to drought, pollution, and soil compaction; white flowers in early spring ; orange-red fall color
<i>Asimina triloba</i>	Pawpaw	15-20'	15-20'	Colony forming	S	5-8	Full sun to dense shade; prefers moist, well-drained soil; forms thickets; sensitive to drought; edible fruit; resistant to deer browse; cultivars available
<i>Cercis canadensis</i>	Eastern Redbud	15-20'	20-25'	Rounded	M	4-8	Best in part shade; prefers well-drained soil; pH adaptable; rose-purple flowers in spring; yellow in fall; purchase trees from a northern source
<i>Cornus alternifolia</i>	Pagoda Dogwood	15-25'	15-25'	Spreading to layered	M	3-7	Sun, but best in part shade; thrives in cool, moist, well-drained soils; small tree to large shrub; white flowers in late spring; blue-black fruit; reddish purple fall color; good wildlife food source
<i>Crataegus crus-galli</i> 2	Cockspur Hawthorn	20-30'	20-35'	Broadly rounded	S/M	4-7	Sun; needs well drained soil; white flowers in spring; persistent red fruit; orange-red fall color; 2-3" thorns
<i>Crataegus viridis</i>	Green Hawthorn	20-35'	20-30'	Spreading vase	M	4-8	Sun; found in woodland edges, floodplains, and rocky pastures; white flowers mid-May; red-orange persistent fruit; 'Winter King' cultivar nearly thornless
<i>Ptelea trifoliata</i>	Wafer Ash	15-20'	10-15'	Rounded	S/M	3-9	Sun to dense shade; found on moist woodland edges; has tendency to sucker; round, winged papery seeds; yellow fall color

- 1 May be difficult to obtain in local garden centers
2. Pests, diseases, or other problems may limit usefulness

Growth rate refers to the average annual rate of growth in the first 10 years after planting.

Key to Growth Rate:

- F = Fast (25 inches or more a year)
- M/F = Medium to Fast (18 to 25 inches a year)
- M = Medium (13 to 22 inches a year)
- S/M = Slow to Medium (12 to 18 inches a year)
- S = Slow (less than 12 inches per year)