

# Children's Forest Tree ID Guide

While at the Children's Forest you may notice black tree tags on some of the trees. On each tag there is the tree name, scientific name, leaf of the tree (to use as a leaf rubbing if needed), and a QR code to scan to take you to the Children's Forest page at [mycountyparks.com](http://mycountyparks.com). In addition you can also do bark rubbings of each tree species.

This guide is to provide you with more detailed tree information for school projects or just to learn more about specific Iowa tree species all in one place.



# Black Maple (*Acer nigrum*)

Maples are among our most important timber trees. One of five maples that grow in Iowa, this hard maple is one of Iowa's important commercial species as well as one of the most spectacular trees for beauty and fall color. Black maple is characterized by having shallowly 3-lobed leaves with drooping sides, nearly entire margins. It is the only hard maple found in western Iowa.

**Habitat:** They occur naturally on a wide variety of sites, but prefer well drained, cool moist locations such as sheltered slopes facing to the north and east. Because of their tolerance to shade, they are often a primary understory component of Iowa's upland woodlands

**Hardiness:** Very tolerant, zones 4 through 8

**Growth Rate:** Slow growing they are a heavier, harder wood, making them less susceptible to branch and limb drop

**Mature Shape:** Maples typically have a large, rounded crown, tree canopies may be very dense or wide spreading

**Height:** 80 - 100 feet

**Width:** 40 - 60 feet

**Leaves:** Opposite, simple

**Flowering Dates:** May

**Seed Dispersal Dates:** Late Summer - Early Fall

**Seed Bearing Age:** 30 years

**Fall Color:** Hard maples are a major contributor to Iowa's outstanding fall color.

Colors vary from deep shades of orange, red and golden yellow.

**Used IN:** Used for a variety of products including fine furniture, flooring, veneer, musical instruments, bowling pins, billiard cues, handles, bobbins, pallets and crates.

In addition, hard maple is the preferred species for maple syrup production



## Box Elder (*Acer negundo*)

Box elders are a soft maple that has a compound leaf, resembling that of ashes. One of five maples that grow in Iowa this soft maple. This native tree, while very cold hardy, is not widely sold due to its ability to self-seed aggressively. It also attracts boxelder bugs which often enter homes in fall.

**Habitat:** Found throughout Iowa. Native to wet soil and river bottoms, their population has greatly increased in urban areas because they are highly adaptable. Because of its rapid growth on good soils, it has been planted frequently for shade and ornamental purposes in areas where other trees do not grow well

**Hardiness:** Zones 3 through 8

**Growth Rate:** Fast, short lived tree is quite brittle and is of little value

**Mature Shape:** Short stemmed tree of irregular shape

**Height:** 40 - 60 feet

**Width:** 30 - 40 feet

**Leaves:** Opposite compound

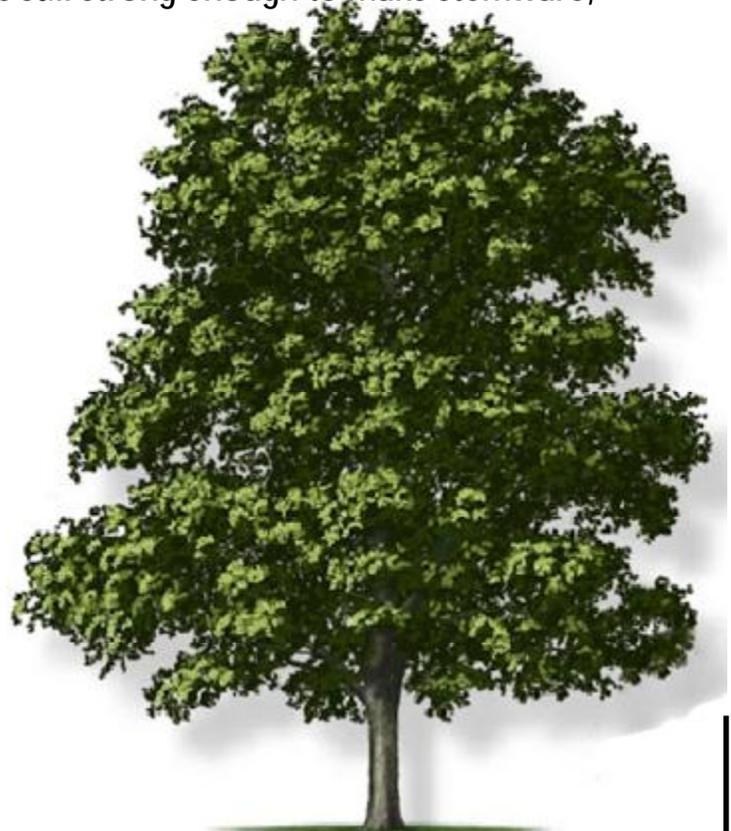
**Flowering Dates:** March - May

**Seed Dispersal Dates:** September - March

**Seed Bearing Age:** 2-4 years

**Fall Color:** Orange and yellow

**Used IN:** Planted as a shade and shelterbelt tree, as food for wildlife, tapped to make maple syrup, not as strong as other maple trees, but it is still strong enough to make stemware, bowls, pens, and fiberboard



# Silver Maple (*Acer saccharinum*)

One of the fastest growing and tallest maples in Iowa. Making it somewhat susceptible to wind damage and breakage later in life. The silver maple is the most common, and was used widely by the early settlers for planting in groves about their farmsteads.

**Habitat:** Grows on dry open woods, rocky bluffs and pastures. Found throughout Iowa. Grows in a wide range of soil types but prefers deep, moist, acidic soil. It can withstand some flooding and has moderate drought tolerance.

**Hardiness:** Zones 3 through 9

**Growth Rate:** Fast rate, with height increases of more than 24" per year

**Mature Shape:** Large, rounded crown, can be very dense or wide spreading

**Height:** 50 - 80 feet

**Width:** 35 - 50 feet

**Leaves:** Opposite simple

**Flowering Dates:** March - May

**Seed Dispersal Dates:** October - December

**Seed Bearing Age:** 10 years

**Fall Color:** Green-yellow brown to yellow to brown

**Used IN:** Veneer, paper (pulpwood), boxes, crates/pallets, musical instruments, turned objects, and other small specialty wood items



## Bur Oak (*Quercus macrocarpa*)

In 1961, the Iowa General Assembly designated the "oak" as Iowa's official state tree. Many people have come to recognize the bur oak as Iowa's state tree since it is the only species found throughout the entire state. It can be argued that, no other group of trees is more important to both rural and urban forests in Iowa. Twelve different species of oaks are native to Iowa. Iowa oaks are separated into either of two groups: red oaks or white oaks. A member of the broad white oak group Bur Oaks are characterized by having rounded lobes on the leaves.

**Habitat:** Adapted to a wide range of sites and soils, from very dry exposures to good soils which are fertile and moist. Found throughout the state

**Hardiness:** Zones 3 through 8

**Growth Rate:** Slow rate, with height increases of less than 12" per year, long lived

**Mature Shape:** Broad, rounded

**Height:** 70 - 80 feet

**Width:** 80 feet

**Leaves:** Alternate, simple, lobed. Lobes have rounded tips

**Flowering Dates:** April - May

**Seed Dispersal Dates:** September - October

**Seed Bearing Age:** 35 years

**Fall Color:** Varies from dull yellow, yellow green to yellow brown

**Used IN:** Cabinetry, furniture, interior trim, flooring, boatbuilding, barrels, and veneer. The white oaks have plugs (tyloses) in the water conducting tissue of the wood or vessels, making oak containers such as whiskey barrels waterproof



## Red Oak (*Quercus rubra*)

A member of the broad red oak group characterized by having bristles or points on the leaf lobes and acorns which mature in two growing seasons and sprout in the spring after maturity. Red oak is one of the best native oaks for landscaping because of its fast growth rate and its wide adaptability of sites. It is a much better oak for landscaping than the pin oak because of pin oak's susceptibility to iron chlorosis. In addition, it is more reliable for fall color development.

**Habitat:** Found growing on moist upland woods. Rare in northwest Iowa. Best growth in moist, well-drained soils. Adaptable to adverse soil conditions

**Hardiness:** Zones 3 through 8

**Growth Rate:** Fast rate, with height increases of more than 24" per year

**Mature Shape:** Broad, rounded

**Height:** 50 - 75 feet

**Width:** 40 - 70 feet

**Leaves:** Alternate, simple, lobed. Lobes have pointed tips

**Flowering Dates:** April - May

**Seed Dispersal Dates:** Late September - October

**Seed Bearing Age:** 25 years

**Fall Colors:** Fall color is variable and ranges from red, orange red to deep reddish brown

**Used IN:** The wood of red oak is hard, strong, and heavy like that of other oaks, but is less durable although easier to machine than white oak. Current demand for red oak lumber and veneer is high because of its increased use in both the furniture and housing industries. Other uses include pallet lumber, railroad ties, and firewood



# White Oak (*Quercus alba*)

A member of the broad white oak group, is characterized by having rounded lobes on the leaves. The strength, hardness, durability, and widespread availability of white oak have made its wood one of the most important hardwoods in the US and Iowa.

**Habitat:** Best growth in moist, well-drained soils. Grows on upland woods and dry slopes. Adaptable to adverse soil conditions. Common in most of the state except northwest Iowa.

**Hardiness:** Zones 3 through 9

**Growth Rate:** This tree grows at a slow to medium rate, with height increases of anywhere from less than 12" to 24" per year

**Mature Shape:** Oval or rounded shape

**Height:** 50 - 80 feet

**Width:** 50 - 80 feet

**Leaves:** Alternate, simple, lobed; with rounded tips

**Flowering Dates:** May

**Seed Dispersal Dates:** October

**Seed Bearing Age:** 20 years

**Fall Colors:** Great fall color, with leaves turning showy shades of red or burgundy

**Used IN:** Railroad ties and timbers, flooring, furniture and paneling. Its density has also make it one of the most popular fire woods



# Sycamore (*Platanus occidentalis*)

The sycamore is a grand, stately shade tree for a larger site. It has broad green leaves but is most recognizable by its peeling bark, with patches of white and gray. Is one of Iowa's largest trees; it attains diameters of 4-7 feet and heights of over 100 feet. Sycamore has often been planted as a shade or street tree in Iowa because of its fast growth, excellent shade, handsome appearance, and its ability to withstand winds. It has strong wood and lives much longer than many other fast growing trees.

**Habitat:** Prefers deep, moist, rich soil. Sycamores are found growing naturally in bottomlands, and banks of rivers or streams

**Hardiness:** Zones 4 through 9

**Growth Rate:** Moderate to Fast

**Mature Shape:** A massive trunk and wide spreading crown with large, crooked branches

**Height:** 75 - 100 feet

**Width:** 75 - 100 feet

**Leaves:** Alternate, simple, lobed, with pointed tips

**Flowering Dates:** March - April

**Seed Dispersal Dates:** February - April

**Seed Bearing Age:** 10 years

**Fall Color:** Yellow brown leaves

**Used IN:** Veneer, plywood, interior trim, pallets/crates, flooring, furniture, particleboard, paper (pulpwood), tool handles, and other turned objects



# Eastern Cottonwood (*Populus deltoides*)

The fastest growing and largest tree found in Iowa. The largest specimen in Iowa is over 11 feet in diameter, 80 feet tall and more than 85 feet in width. As a shade tree or landscape plant, cottonwood is not used extensively because it is not an extremely sturdy and durable tree. The advantage of cottonwood for landscape or windbreaks is its fast growth rate. For most shade or windbreak uses, select a male selection to avoid the cotton problem during seed production.

**Habitat:** Found growing along lakes, streams and wetlands where it does best and is well adapted to these wetter environments. Its preferred environment for rapid growth is the moist, well drained bottomland soils, but it will grow and do moderately well on a wide variety of sites from droughty uplands, to moderately wet soils. Trees are tolerant of drought and air pollution.

**Hardiness:** Zones 2 through 9

**Growth Rate:** Fast, young trees grow in excess of 6 feet in height each year

**Mature Shape:** Develops an open, spreading crown and become ragged and irregular with age

**Height:** 75 - 100 feet

**Width:** 50 - 75 feet

**Leaves:** Alternate, simple, single toothed, triangle shaped

**Flowering Dates:** March - May

**Seed Dispersal Dates:** May - August

**Seed Bearing Age:** 10 years

**Fall Color:** Turning yellow or brown

**Used IN:** Pallet lumber, boxes and crates, hidden furniture parts and more recently for dimension lumber



# American Elm (*Ulmus americana*)

Once an abundant species in Iowa's native woodlands and urban forests. The American elm was probably perfect street tree; it was easy to plant, transplant, grew fast, and its vase-shape was perfect for the American street. Its loss was a serious blow to communities in Iowa both in terms of removal costs and how to replace its many shade tree benefits. Most of the large trees are gone, except for a few vintage survivors which have managed to escape the disease. Some of these resistant varieties are now becoming commercial available for use in the urban landscape. Even though Dutch elm disease has killed most of the large elm in Iowa, American elm is still a component of woodlands in the state.

**Habitat:** Grows in bottomland areas. Can be found throughout Iowa. American elms grow best in full sun to part shade and moist well drained soils. Elms are adaptable to adverse soil conditions.

**Hardiness:** Zones 2 through 9

**Growth Rate:** Moderate to Rapid

**Mature Shape:** Upright, spreading, and vase-shaped canopy

**Height:** 75 - 125 feet

**Width:** 60 - 120 feet

**Leaves:** Alternate, simple, double-toothed with unequal leaf bases

**Flowering Dates:** February - May

**Seed Dispersal Dates:** March - June

**Seed Bearing Age:** 15 years

**Fall Color:** Yellow leaves

**Used IN:** Veneer, boxes, crates, barrel staves and furniture parts



# Black Walnut (*Juglans nigra*)

The most valuable tree in Iowa, black walnut has been used a lot as a shade tree, it is considered to be a poor choice because its relatively open crown provides less shade than other species, its leaves tend to drop early and the nuts tend to be messy. However it is prized for its nuts which proved a distinctive taste for baked products.

**Habitat:** Grows in most of the state. Rich, well-drained soils of bottomlands, terraces and lower slopes. It can tolerate drier soils, but will grow much more slowly in dry conditions

**Hardiness:** Zones 4 through 9

**Growth Rate:** This tree grows at a medium rate, with height increases of 13–24" per year

**Mature Shape:** Usually has a full, well-formed trunk with no branches for quite some distance from the ground. The crown is oval to rounded and somewhat open

**Height:** 50 - 75 feet

**Width:** 30 - 50 feet

**Leaves:** Alternate compound with more than 11 leaflets

**Flowering Dates:** April - June

**Seed Dispersal Dates:** October - November

**Seed Bearing Age:** 12 years

**Fall Color:** Yellow leaves

**Used IN:** Iowa continues to rank as one of the leading producers of walnut lumber and veneer. The rich brown color, attractive grain of the wood, and the woodworking quality of the wood makes it the most valuable timber tree in Iowa



# Green Ash (*Fraxinus pennsylvanica*)

One of our most adaptable native trees. It has been used extensively for a shade tree because of its adaptability and relatively fast growth rate. Most shade tree selections are male to avoid seed production. Due to the emerald ash borer ash trees are no longer suggested for plantings.

**Habitat:** Grows on the edges of moist woods. Found throughout the state. Native to Iowa, ash trees grow best in full sun and moist, well-drained soils. Ash trees are tolerant of a wide range of soil conditions.

**Hardiness:** Zones 2 through 9

**Growth Rate:** This tree grows at a fast rate, with height increases of more than 24" per year

**Mature Shape:** Slightly pyramidal, upright with a rounded crown

**Height:** 50 - 80 feet

**Width:** 25 feet

**Leaves:** Opposite, pinnately compound leaves with 5 to 9 leaflets (usually 7)

**Flowering Dates:** March - May

**Seed Dispersal Dates:** October - Spring

**Seed Bearing Age:** 10 years

**Fall Color:** Golden yellow leaves

**Used IN:** Its wood is hard, tough, and relatively straight grained and used for a variety of products from flooring, millwork, boxes/crates, baseball bats, and other turned objects such as tool handles



# Shagbark Hickory (*Carya ovata*)

The most common of the hickories in Iowa. Shagbark is one of the easiest trees to identify because its bark separates into large, irregular shaped strips that curve out at both ends, giving the trunk a rough, shaggy appearance. Shagbark hickory has not been used extensively for landscape applications, primarily because of its relatively slow growth rate and difficulty in transplanting. It is a desirable landscape plant because of its relatively long life (200-300 years) and good resistance to both insects and diseases.

**Habitat:** Thrives in rich and well-drained loams, but is adaptable to many soil types

**Hardiness:** Zones 4 through 8

**Growth Rate:** Slow rate, with height increases of less than 12" per year

**Mature Shape:** Straight, cylindrical trunk with a oblong crown of ascending and descending branches

**Height:** 60 - 80 feet

**Width:** 30 - 40 feet

**Leaves:** Alternate, compound with five to nine leaflets

**Flowering Dates:** April - June

**Seed Dispersal Dates:** September - December

**Seed Bearing Age:** 40 years

**Fall Color:** Golden brown leaves

**Used IN:** Prime wood for tool handles because of its exceptional strength and shock resistance. It has also been used for skis and other sporting goods, ladder rungs, agricultural implements, pallet construction and charcoal. One relatively minor but important use is for smoking meats including ham and bacon because of the excellent flavor the smoke gives these meats. Recently hickory has been used in the production of fine quality kitchen cabinets and counters. One other major use of hickory in Iowa is for firewood. Hickory is one of the best firewood's because of its high density.



# Honey Locust (*Gleditsia triacanthos*)

Also known as thorny locust or thorn tree, is a medium sized tree with pleasing, graceful foliage. The native species of honey-locust has large thorns on its stems and bark. For this reason, thorn less honey locust, also known as *Gleditsia triacanthos f. inermis*, is most commonly sold. Planted for urban use because of its open foliage, tolerances to the urban environment and fairly fast growth rate.

**Habitat:** Found in bottomland woods, old pastures, and sandy prairies. Common throughout most of Iowa. Adaptable to most soils. Readily transplanted. One of our most adaptable native trees

**Hardiness:** Zones 4 through 9

**Growth Rate:** Fast. As a young tree, it will grow 2 feet or more per year over a ten year period

**Mature Shape:** Upright, spreading. Very delicate and sophisticated silhouette

**Height:** 70 - 80 feet

**Width:** 20 - 40 feet

**Leaves:** Alternate, compound, with thorns or spines

**Flowering Dates:** May - June

**Seed Dispersal Dates:** September - Winter

**Seed Bearing Age:** 10 years

**Fall Color:** Yellow leaves

**Used IN:** Reddish wood is strong, coarse grained and moderately durable. Its common uses have included fence post, railroad ties, furniture, interior woodwork and fuel wood



# Ginkgo (Ginkgo biloba)

Ginkgo is a hardy, pest-resistant, attractive large tree with unusual fan-shaped leaves. Only male trees should be purchased, as the females produce seeds with a soft, fruitlike covering that can be messy and have a potent odor. Hailed as "undoubtedly one of the most distinct and beautiful of all deciduous trees," the ginkgo certainly stands out. This tree also comes with a bit of history. It is a living fossil, with the earliest leaf fossils dating from 270 million years ago.

**Habitat:** Grows in acidic, alkaline, loamy, moist, rich, sandy, silty loam, well-drained, wet and clay soils. It tolerates moderate drought and wetness but doesn't grow well in hot, dry climates

**Hardiness:** Zones 3 through 8

**Growth Rate:** Medium rate, with height increases of 13 - 24" per year

**Mature Shape:** Pyramidal shape

**Height:** 25 - 50 feet

**Width:** 25 - 35 feet

**Leaves:** Simple, fan-shaped bright green leaves that are 2 - 3" long and just as wide

**Flowering Dates:** August - October

**Seed Dispersal Dates:** Late Fall early Winter

**Seed Bearing Age:** 30 - 40 years

**Fall Color:** Vivid yellow leaves

**Used IN:** Seeds and leaves have been (and are still today) used in medicine throughout the world



# Red Bud (*Cercis canadensis*)

In Iowa the red bud is a small tree or large shrub with coarse foliage and a spreading, open crown. The red bud is used widely as an ornamental because of the rose-pink flowers which appear early in the spring along the branches before the leaves appear.

**Habitat:** Grows in ravines, bottomland woods and wooded bluffs, in Iowa it is found mostly scattered through existing woodlands, adaptable to a wide range of soils and moistures

**Hardiness:** Zones 4 through 9

**Growth Rate:** Medium rate, with height increases of 13–24" per year

**Mature Shape:** Rounded

**Height:** 20 - 30 feet

**Width:** 25 - 35 feet

**Leaves:** Heart-shaped leaves 2 - 6" in length

**Flowering Dates:** March - May

**Seed Dispersal Dates:** Late Summer - November

**Seed Bearing Age:** 5 years

**Fall Color:** Yellow leaves

**Used IN:** Flowers and young legumes are edible, extracts from the inner bark and roots were used to treat colds, flu and fever, the branches and stems have been used for basketry, and as an ornamental tree



# White Poplar (*Populus alba*)

White poplars have invasive traits that enable them to spread aggressively. While these trees have demonstrated invasive traits, there is insufficient supporting research to declare them so pervasive that they cannot be recommended for any planting sites. Review of risks should be undertaken before selecting these trees for planting sites.

Habitat: In moist sites and full sun

Hardiness: Zones 3 through 8

Growth Rate: Fast

Mature Shape: Narrow to rounded

Height: 65 - 100 feet

Width: 40 - 70 feet

Leaves: Alternate, simple, with lobed and pointed tips

Flowering Dates: April - May

Seed Dispersal Dates: May - June

Seed Bearing Age: 10 - 15 years

Fall Color: Yellow leaves

Used IN: Wood is soft, and used for cellulose and to make cheap boxes, yellow dye

