

Restoring South Bend's Urban Tree Canopy Program, One Tree at a Time.

Tree List

Shawnee Baldcypress – *Taxodium distichum*

Common Hackberry – *Celtis occidentalis*

Swamp White Oak – *Quercus bicolor*

Sweetgum – *Liquidambar styraciflua*

Green Vase Zelkova – *Zelkova serrata*

Redmond Linden – *Tilia americana*

Tulip Tree – *Liriodendron tulipifera*

Princeton Elm – *Ulmus americana*

Skyline Locust – *Gleditsia tri. inermis*

Exclamation London Plane – *Platanus x acerifolia*

Royal Raindrops Crabapple – *Malus x 'JFS-KW5'*

Kousa Dogwood – *Cornus kousa*

Redbud – *Cercis canadensis*

Heritage Birch – *Betula nigra*

Shawnee Baldcypress



This stately conifer, native to the Midwest, often is found in groupings in parks and larger spaces, along streets, and around lakes. Unlike most cone-bearing trees, bald-cypress loses its needles each winter and grows a new set in spring. The russet-red fall color of its lacy needles is one of its outstanding characteristics. Hardy and tough, this tree will adapt to a wide range of soil types, whether wet, dry, or even swampy.

Botanical name: *Taxodium distichum* 'Mickelson'

All common names: bald-cypress, bald cypress, baldcypress, swamp cypress, white-cypress, tidewater red-cypress, gulf-cypress, red-cypress

Family (English): Cypress

Family (Botanic): Cupressaceae

Planting Site:

- Residential and parks,
- City parkway,
- Wide median,
- Restricted sites
- Good for small urban spaces

Tree or Plant Type: Tree

Foliage: Deciduous (seasonally loses leaves)

Native Locale: North America

Landscape Uses: Massing, Specimen

Size Range: Large tree (more than 40 feet)

Mature Height: 50 feet

Mature Width: 20 feet

Light Exposure:

- Full sun (6 hrs direct light daily),
- Partial sun/shade (4-6 hrs light daily)

Hardiness Zones: Zone 4, Zone 5, Zone 6, Zone 7, Zone 8, Zone 9, Zone 10, Zone 11

Soil Preference: Acid soil, Wet soil

Tolerances: Dry sites, Wet sites, Occasional flooding, Clay soil

Acid Soils: Prefers

Alkaline Soils: Moderately Tolerant

Salt Spray: Tolerant

Soil Salt: Intolerant

Drought Conditions: Moderately Tolerant

Poor Drainage: Tolerant

Ornamental Interest: Fall color, Attractive bark

Seasons of Interest: late summer, early fall, mid fall

Flower Color & Fragrance: Inconspicuous

Shape or Form: Pyramidal

Growth Rate: Moderate

Transplants Well: Yes

Wildlife: Birds, Small mammals, Water birds

Tree & Plant Care

Best grown in full sun in wet, dry, and swampy locations.

Acid soils are best. May show chlorosis symptoms (yellowing) in high pH (alkaline) soil.

Disease, pests, and problems

The bald cypress is susceptible to twig blight, spider mite, gall forming mite, and cypress moths.

Native geographic location and habitat

Southern US, especially wetlands and coastal areas.

Bark color and texture

Attractive, fibrous, reddish-brown bark.

Leaf or needle arrangement, size, shape, and texture

Soft, feathery needles turn russet-red in autumn before falling. This is one of the few conifers (cone-bearing trees) that loses its needles in winter and grows a new set in spring.

Flower arrangement, shape, and size

Male and female flowers in separate structures on the same tree; inconspicuous.

Fruit, cone, nut, and seed descriptions

Small round cones stay on branches into the winter.

Common Hackberry



Hackberry is area native and a sturdy, tolerant shade tree for streets and parkways, or parks and other large areas. Its fleshy, purple-brown berries ripen in late summer and persist through winter. The persistent fruits attract many birds that also find the tree to be a suitable nesting site.

Botanical name: *Celtis occidentalis*

All common names: Hackberry

Family (English): Hemp (formerly Elm)

Family (Botanic): Cannabaceae (formerly Ulmaceae)

Planting Site:

- Residential and parks,
- City parkway,
- Wide median,
- Restricted sites

Tree or Plant Type: Tree

Foliage: Deciduous (seasonally loses leaves)

Native Locale: North America

Landscape Uses: Parkway/street, Shade tree, Specimen

Size Range: Large tree (more than 40 feet)

Mature Height: 40-60 feet

Mature Width: 40-50 feet

Light Exposure:

- Full sun (6 hrs direct light daily),
- Partial sun/shade (4-6 hrs light daily)

Hardiness Zones: Zone 2, Zone 3, Zone 4, Zone 5, Zone 6, Zone 7, Zone 8, Zone 9

Soil Preference: Alkaline soil, Moist, well-drained soil

Tolerances: Dry sites, Occasional drought, Wet sites, Occasional flooding, Alkaline soil, Clay soil, Road salt

Acid Soils: Tolerant

Alkaline Soils: Prefers

Salt Spray: Moderately Tolerant

Soil Salt: Moderately Tolerant

Drought Conditions: Tolerant

Poor Drainage: Tolerant

Planting Considerations: Highly susceptible to ice damage, Weak wood and branch structure

Ornamental Interest: Fall color, Edible fruit, Persistent fruit/seeds, Attractive bark

Seasons of Interest: early winter, midwinter, late winter, early fall, mid fall, late fall

Flower Color & Fragrance: Inconspicuous

Shape or Form: Oval, Round, Vase-shaped

Growth Rate: Moderate, Fast

Transplants Well: Yes

Wildlife: Cavity-nesting birds, Game birds, Game mammals, Migrant birds, Songbirds

More Information:

Tree & Plant Care

Full sun in well drained soil, pH tolerant

A relatively low-maintenance tree

Prune during dormant season

Disease, pests and problems

Heavy aerial salt can cause witch's broom and hackberry nipple gall.

Disease, pest, and problem resistance

Very tolerant of many soil and weather conditions.

Native geographic location and habitat: C-Value: 3, Found in a variety of habitats.

Bark color and texture:

Smooth grayish bark when young, but develops corky warts and ridges with age.

Leaf or needle arrangement, size, shape, and texture

Simple, alternate leaves, 2 to 4 inches long; simple, ovate to egg-shaped with a dull, rough surface.

Leaves look similar to elm leaves.

Medium green leaves turn a yellow fall color

Flower arrangement, shape, and size

Inconspicuous; some flowers are male, some female and some perfect.

Fruit, cone, nut, and seed descriptions

A single fleshy berry-like drupe, 1/3 inch diameter, starts out green changing to a deep purple-brown.

Ripen in late summer, persisting through winter.

Swamp White Oak



Swamp white oak is a striking tree with attractive peeling bark, especially on young trees. The lustrous, lobed leaves have a two-tone appearance, dark green on top with a silvery-white underside. Fall color is an orange-gold to yellow in mid-autumn. An excellent shade tree for any landscape. This species is native to the region.

Botanical name: *Quercus bicolor*

All common names: swamp white oak

Family (English): Beech; Oak

Family (Botanic): Fagaceae

Planting Site: Residential and parks, City parkway, Wide median, Restricted sites

Tree or Plant Type: Tree

Foliage: Deciduous (seasonally loses leaves)

Native Locale: North America

Landscape Uses: Parkway/street, Shade tree, Specimen

Size Range: Large tree (more than 40 feet)

Mature Height: 50-60 feet

Mature Width: 50-60 feet

Light Exposure: Full sun (6 hrs direct light daily)

Hardiness Zones: Zone 4, Zone 5, Zone 6, Zone 7, Zone 8

Soil Preference: Acid soil, Moist, well-drained soil

Tolerances: Dry sites, Occasional drought, Wet sites, Occasional flooding, Alkaline soil, Clay soil, Road salt

Acid Soils: Tolerant

Alkaline Soils: Moderately Tolerant

Salt Spray: Intolerant

Soil Salt: Moderately Tolerant

Drought Conditions: Tolerant

Poor Drainage: Tolerant

Planting Considerations: Messy fruit/plant parts

Ornamental Interest: Fall color

Seasons of Interest: early winter, midwinter, mid fall, late fall

Flower Color & Fragrance: Inconspicuous

Shape or Form: Broad, Round

Growth Rate: Moderate

Transplants Well: Yes

Wildlife: Game birds, Game mammals, Migrant birds, Small mammals

More Information:

Tree & Plant Care

One of the easiest oaks to transplant and more tolerant of poor drainage than other oaks.

Avoid high pH soils or plants may develop chlorotic (yellowing) leaves.

Tolerant of salt, drought and heat.

Prune oaks in the dormant season to avoid attracting beetles that may carry oak wilt.

Disease, pests, and problems

Anthrachnose, occasional powdery mildew, chlorosis in high pH soils, and insect galls.

Disease, pests, and problem resistance

Tolerant of black walnut toxicity.

Bark color and texture

Mature bark is a dark gray-brown with blocky ridges. Young trees develop a flaky, peeling bark that reveals an orange inner bark.

Leaf or needle arrangement, size, shape, and texture

Alternate, simple, rounded to coarsely lobed leaves with variable wavy margins. Dark green above with silvery-white underside. Leaves turn to golden or orange brown in fall.

Flower arrangement, shape, and size

Male flowers hang in clusters of catkins.

Female flowers are inconspicuous, tiny spikes in leaf axils.

Fruit, cone, nut, and seed descriptions

Acorns are 1 inch long and enclosed halfway with a warty cap. The cap often remains attached to a stalk (peduncle) once the fruit is ripe and falls from the tree.

Sweet-gum



Sweet-gum is known for its unique star-shaped leaves with outstanding yellow, red, and purple fall color. It can be an excellent shade tree in the right location, away from foot traffic where the spiky "gumball" fruits will not be an annoyance. If an appropriate space is available.

Botanical name: *Liquidambar styraciflua*

All common names: sweet-gum, American sweet-gum, sweet gum, sweetgum

Family (English): Witch Hazel

Family (Botanic): Hamamelidaceae

Planting Site: Residential and parks

Tree or Plant Type: Tree

Foliage: Deciduous (seasonally loses leaves)

Native Locale: North America

Landscape Uses: Shade tree, Specimen

Size Range: Large tree (more than 40 feet)

Mature Height: 60-75 feet

Mature Width: 40-75 feet

Light Exposure: Full sun (6 hrs direct light daily)

Hardiness Zones: Zone 5, Zone 6, Zone 7, Zone 8, Zone 9

Soil Preference: Acid soil, Moist, well-drained soil, Wet soil

Tolerances: Wet sites, Occasional flooding, Clay soil, Road salt

Acid Soils: Prefers

Alkaline Soils: Intolerant

Salt Spray: Tolerant

Soil Salt: Tolerant

Drought Conditions: Tolerant

Poor Drainage: Tolerant

Planting Considerations: Intolerant of pollution, Marginally hardy, Messy fruit/plant parts

Ornamental Interest: Fall color

Seasons of Interest: mid fall, late fall

Flower Color & Fragrance: Inconspicuous, Other

Shape or Form: Oval, Pyramidal, Round

Growth Rate: Moderate, Fast

Transplants Well: Yes

Wildlife: Game birds, Insect pollinators, Sapsuckers, Small mammals, Songbirds

Tree & Plant Care

A large tree where ample room is provided.

Best in full sun to partial shade in deep, moist, bottomland soils. |

Transplant difficult due to shallow, fleshy root system. Slow to establish.

Because of wide geographical range, it is important to use northern nursery sources.

Disease, pests, and problems

Iron chlorosis can be a problem in high pH soils.

Disease, pest, and problem resistance

Tolerant of black walnut toxicity.

Native geographic location and habitat

Native to Eastern United States, from Southwestern Connecticut to Florida.

Bark color and texture

Mature trees have a grayish brown, deeply furrowed bark with narrow ridges.

Some trees develop interesting corky ridges on 2 year old stems.

Leaf or needle arrangement, size, shape, and texture

Alternate, maple-like, star shaped leaves are 5 to 7 lobed and 4 to 8 inches long and wide with serrate margins.

The dark to medium glossy green leaves change to a kaleidoscope of yellow, red, purple tones in the fall.

Leaves have a camphor-like smell when crushed.

Flower arrangement, shape, and size

Monoecious. Non-showy, drooping female flowers are yellowish-green in early spring.

Male flowers are upright, reddish-green in terminal panicles.



Fruit, cone, nut, and seed descriptions

Gumball-like, 1 to 1.5 inch, spiny fruits change from green to brown in late summer and fall.

Fruits are a dehiscent capsule and persist into winter.

Considered messy especially near sidewalks and patios.

Green Vase Zelkova



Japanese zelkova is closely related to elms but is resistant to Dutch elm disease (DED). It tolerates urban conditions well and can be used as a street tree. This tree has interesting bark, clean serrated foliage, and good fall color. Foliage is dark green in summer, changing to a mix of orange, bronze, and red. This cultivar has a narrower vase shape than other species. As a young tree it shows a faster rate of growth. Good winter hardiness.

Botanical name: *Zelkova serrata*

All common names: Japanese zelkova

Family (English): Elm

Family (Botanic): Ulmaceae

Planting Site: Residential and parks, City parkway, Wide median, Restricted sites

Tree or Plant Type: Tree

Foliage: Deciduous (seasonally loses leaves)

Native Locale: Non-native

Landscape Uses: Parkway/street, Shade tree, Specimen

Size Range: Large tree (more than 40 feet)

Mature Height: 50-80 feet

Mature Width: 50-75 feet

Light Exposure: Full sun (6 hrs direct light daily), Partial sun/shade (4-6 hrs light daily)

Hardiness Zones: Zone 5, Zone 6, Zone 7, Zone 8

Soil Preference: Acid soil, Moist, well-drained soil

Tolerances: Dry sites, Occasional drought, Alkaline soil, Clay soil, Road salt

Acid Soils: Tolerant

Alkaline Soils: Moderately Tolerant

Salt Spray: Moderately Tolerant

Soil Salt: Tolerant

Drought Conditions: Tolerant

Poor Drainage: Intolerant

Planting Considerations: Highly susceptible to ice damage

Ornamental Interest: Fall color, Attractive bark

Seasons of Interest: early fall, mid fall

Flower Color & Fragrance: Inconspicuous

Shape or Form: Vase-shaped

Growth Rate: Moderate, Fast

Transplants Well: Yes

Tree & Plant Care

Tolerant of both acidic and alkaline soils. Avoid wet sites.

Disease, pests, and problems

Phloem necrosis and cankers are possible.

Disease, pest, and problem resistance

Zelkova is closely related to elms, but it is resistant to Dutch elm disease.

Drought tolerant and fairly tolerant of urban sites once established.

Native geographic location and habitat

Native to Japan, eastern China, Taiwan, and Korea

Bark color and texture

Grayish-brown with numerous lenticels. With age, the bark becomes more mottled in color and exfoliates (peels) slightly.

Leaf or needle arrangement, size, shape, and texture

Simple, alternate leaves with sharply serrated margins. Ovate leaves, 1 1/2 to 2 inches long, with rounded bases and long-pointed tips.

Dark green in summer changing to yellow, orange, or reddish-purple.

Flower arrangement, shape, and size

Small, inconspicuous flowers in spring.

Fruit, cone, nut, and seed descriptions

A small drupe; not ornamentally important.

Redmond American Basswood



American basswood is native to the area and is often used as a specimen or dense shade tree. Its heart-shaped leaves and fragrant flowers in June make it especially attractive for people, while songbirds and blue jays are attracted to its seeds and use the tree for shelter. 'Redmond' is a dense, pyramidal cultivar. (Formerly classified as *Tilia x euchlora* 'Redmond').

Botanical name: *Tilia americana* "Redmond"

All common names: American basswood, American linden, basswood

Family (English): Linden

Family (Botanic): Tiliaceae

Planting Site: Residential and parks, City parkway, Wide median

Tree or Plant Type: Tree

Foliage: Deciduous (seasonally loses leaves)

Native Locale: North America

Landscape Uses: Parkway/street, Shade tree, Specimen

Size Range: Large tree (more than 40 feet)

Mature Height: 60-80 feet

Mature Width: 30-60 feet

Light Exposure: Full sun (6 hrs direct light daily), Partial sun/shade (4-6 hrs light daily)

Hardiness Zones: Zone 3, Zone 4, Zone 5, Zone 6, Zone 7, Zone 8

Soil Preference: Moist, well-drained soil

Tolerances: Dry sites, Occasional drought, Alkaline soil, Clay soil

Acid Soils: Tolerant

Alkaline Soils: Tolerant

Salt Spray: Intolerant

Soil Salt: Intolerant

Drought Conditions: Moderately Tolerant

Poor Drainage: Moderately Tolerant

Planting Considerations: Highly susceptible to ice damage

Ornamental Interest: Spring blossoms, Fragrant flowers, Persistent fruit/seeds, Showy flowers

Seasons of Interest: early summer, midsummer, early fall, mid fall

Flower Color & Fragrance: Fragrant, Yellow

Shape or Form: Oval, Pyramidal, Round

Growth Rate: Moderate

Transplants Well: Yes

Wildlife: Game mammals, Small mammals

Tree & Plant Care

Best in moist, well-drained soils. Adaptable to alkaline soils.

Disease, pests, and problems

Aphids, Japanese beetles, linden borer are possible insect problems.

Anthracnose and *Verticillium* wilt are possible fungal problems.

Native geographic location and habitat

C-Value: 5

Native to the Chicago region

Bark color and texture

Gray, ridged and furrowed.

Leaf or needle arrangement, size, shape, and texture

Simple, alternate, heart-shaped leaves ranging from 4 to 8 inches long. Margins are coarsely toothed. Summer color is dark green above and lighter green on the lower surface. Fall color pale yellow.

Flower arrangement, shape, and size

Creamy yellow flowers in hanging clusters (5 to 10 flowers per cluster) in early summer. Each cluster is accompanied by a long, strap-shaped bract. Very fragrant.

Fruit, cone, nut, and seed descriptions

Fruits are small, round nutlets, accompanied by a long strap-like bract.

Tulip Tree



The tulip-tree is one of the largest native trees in North America. It is a member of the magnolia family and has distinct tulip-shaped characteristic in its leaves, flowers, and fruit. The showy, goblet-shaped, orange-yellow-green flowers appear in late spring after the leaves; the cone-like seed clusters sit upright on the branches. The golden-yellow fall color of the tulip-tree makes this an excellent choice for large landscapes.

Botanical name: *Liriodendron tulipifera*

All common names: tulip-tree, tulip poplar, yellow poplar, tulip-poplar, tulip tree

Family (English): Magnolia

Family (Botanic): Magnoliaceae

Planting Site: Residential and parks, City parkway, Wide median

Tree or Plant Type: Tree

Foliage: Deciduous (seasonally loses leaves)

Native Locale: North America

Landscape Uses: Parkway/street, Shade tree, Specimen

Size Range: Large tree (more than 40 feet)

Mature Height: 70-90 feet

Mature Width: 35-50 feet

Light Exposure: Full sun (6 hrs direct light daily), Partial sun/shade (4-6 hrs light daily)

Hardiness Zones: Zone 5, Zone 6, Zone 7, Zone 8, Zone 9

Soil Preference: Acid soil, Moist, well-drained soil

Tolerances: Alkaline soil

Acid Soils: Tolerant

Alkaline Soils: Moderately Tolerant

Salt Spray: Intolerant

Soil Salt: Intolerant

Drought Conditions: Intolerant

Poor Drainage: Intolerant

Planting Considerations: Highly susceptible to ice damage, Marginally hardy, Weak wood and branch structure

Ornamental Interest: Fall color, Showy flowers

Seasons of Interest: late spring, early summer, mid fall, late fall

Flower Color & Fragrance: Orange, Yellow

Shape or Form: Oval, Pyramidal, Round, Upright

Growth Rate: Fast

Transplants Well: Yes

Wildlife: Insect pollinators, Sapsuckers, Small mammals, Songbirds

More Information:

Tree & Plant Care

Tulip-tree prefers moist, well-drained, slightly acidic soils. Tolerant of more alkaline soil.

As with all members of the Magnolia family, tulip-tree's fleshy root system prefers being transplanted in early spring, rather than autumn.

A consistent supply of moisture is necessary; tree will suffer from leaf yellowing when planted in a dry site.

Disease, pests, and problems

Aphids, scales, mildew, canker, and verticillium wilt are possible problems.

Fast growth rate causes the tree to be somewhat weak wooded.

Tulip-tree is tolerant of black walnut toxicity.

Native geographic location and habitat

C-Value: 5

Native throughout most of eastern United States.

Bark color and texture

Mature trees have a gray-brown trunk with deeply furrowed fissures.

Young trees have smooth, gray bark with white shallow fissures.

Leaf or needle arrangement, size, shape, texture, and color

Alternate, simple, 3 to 8 inch long with a unique 4-lobed, flat-topped leaf.

Leaves are glossy green above with a pale green underside, changing to golden yellow in the fall.

Distinct, 1/2 inch long reddish-brown buds are said to resemble a duck's bill.

Flower arrangement, shape, and size

Attractive, 2 inch tall, tulip-like flowers are yellow-green, with an orange band at the base of each petal.

Often obscured by leaves at the tips of branches.

Fruit, cone, nut, and seed descriptions

A 2 inch long, cone-shaped, aggregate of samaras (winged seeds). The seeds sit upright in pyramidal clusters, turning brown in October and persisting through winter.

Princeton Elm



The Princeton elm exhibits good resistance to Dutch elm disease (DED) and demonstrates resistance to elm beetles as well. This large, fast-growing tree is tolerant of many adverse site conditions. This plant is a cultivar of a species that is native to the region. Cultivars are plants produced in cultivation by selective breeding or via vegetative propagation from wild plants identified to have desirable traits.

Botanical name: *Ulmus americana* 'Princeton'

All common names: Princeton elm

Family (English): Elm

Family (Botanic): Ulmaceae

Planting Site: Residential and parks, City parkway, Wide median, Restricted sites

Tree or Plant Type: Tree

Foliage: Deciduous (seasonally loses leaves)

Native Locale: Non-native

Landscape Uses: Parkway/street, Shade tree, Specimen

Size Range: Large tree (more than 40 feet)

Mature Height: 50-70 feet

Mature Width: 30-50 feet

Light Exposure: Full sun (6 hrs direct light daily)

Hardiness Zones: Zone 3, Zone 4, Zone 5, Zone 6, Zone 7, Zone 8, Zone 9

Soil Preference: Moist, well-drained soil

Tolerances: Dry sites, Occasional drought, Wet sites, Occasional flooding, Alkaline soil, Clay soil, Road salt

Acid Soils: Tolerant

Alkaline Soils: Tolerant

Salt Spray: Tolerant
Soil Salt: Tolerant
Drought Conditions: Tolerant
Poor Drainage: Tolerant
Ornamental Interest: Fall color
Seasons of Interest: early fall, mid fall
Flower Color & Fragrance: Inconspicuous
Shape or Form: Vase-shaped
Growth Rate: Fast
Transplants Well: Yes
Wildlife: Migrant birds

Tree & Plant Care

Generally, elms prefer sun.

Adapt easily to extremes in soil pH, moisture and heat and wind tolerance.

Elms should be pruned in the dormant season.

Disease, pests, and problems

Elm yellows, elm phloem necrosis, elm leaf miner and verticillium wilt are potential problems.

Disease, pest, and problem resistance

This cultivar has good resistance to Dutch elm disease and some resistance to elm leaf beetle.

Tolerant of black walnut toxicity.

Native geographic location and habitat

This is a cultivated species of a native tree.

Bark color and texture

The dark gray bark is ridged and furrowed.

Leaf or needle arrangement, size, shape, and texture

Alternate, oval, pointed leaves have doubly toothed margins. Leaf is shorter on one side of center vein than on the other. Dark green in summer, changing to yellow fall.

Flower arrangement, shape, and size

Inconspicuous flowers in early spring.

Fruit, cone, nut, and seed descriptions

Seed in small oval samara (seed case with wings for wind dispersal).

Skyline Locust



The light, dappled shade cast by the lacy foliage of this attractive tree is only one of its virtues. It also is durable and adaptable, tolerating a wide range of soil conditions as well as drought, and road salt, and has a lovely yellow fall color. As a result, honey locust is overused in city and suburban landscapes. For the sake of species diversity, it should only be planted after careful consideration of alternatives. The native species of honey-locust has large thorns on its stems and bark. For this reason, thornless honey locust, also known as *Gleditsia triacanthos* f. *inermis*, is most commonly sold. A male (fruitless) cultivar with a more pyramidal shape.

Botanical name: *Gleditsia triacanthos* f. *inermis* 'Skycole'

All common names: thornless honey-locust, common honey-locust, honeylocust, thornless honeylocust

Family (English): Pea

Family (Botanic): Fabaceae (formerly Leguminosae)

Planting Site: Residential and parks, City parkway, Wide median, Restricted sites

Tree or Plant Type: Tree

Foliage: Deciduous (seasonally loses leaves)

Native Locale: North America

Landscape Uses: Parkway/street, Shade tree, Specimen

Size Range: Large tree (more than 40 feet), medium tree (25-40 feet)

Mature Height: 30-70 feet

Mature Width: 30-70 feet

Light Exposure: Full sun (6 hrs direct light daily)

Hardiness Zones: Zone 4, Zone 5, Zone 6, Zone 7, Zone 8, Zone 9, Zone 10

Soil Preference: Moist, well-drained soil

Tolerances: Dry sites, Occasional drought, Wet sites, Occasional flooding, Alkaline soil, Clay soil, Road salt

Acid Soils: Tolerant

Alkaline Soils: Tolerant

Salt Spray: Tolerant

Soil Salt: Tolerant

Drought Conditions: Tolerant

Poor Drainage: Tolerant

Planting Considerations: Commonly planted

Ornamental Interest: Fall color, Persistent fruit/seeds

Seasons of Interest: early fall, mid fall

Flower Color & Fragrance: Inconspicuous

Shape or Form: Broad, Round

Growth Rate: Fast

Transplants Well: Yes

Wildlife: Game birds, Migrant birds, Small mammals

Tree & Plant Care

Prune in fall or winter.

Disease, pests, and problems

Mites can lead to early leaf drop.

Cankers, root rot, and borers are potential problems (most commonly on stressed trees).

Disease, pest, and problem resistance

Tolerant of black walnut toxicity.

Native geographic location and habitat

C-Value: 2

Native to most of the lower Midwest and south to the Gulf coast.

Bark color and texture

Bark is dark gray, breaking into long flat plates that curl along the edges.

The native honey-locust has long thorns on stems and bark; f. *inermis* does not.

Leaf or needle arrangement, size, shape, and texture

Pinnately compound or bipinnately compound, alternate leaves with 20 to 30 oval leaflets; each leaf about 6 to 8 inches long. Fall color is yellow.

Flower arrangement, shape, and size

Inconspicuous; small yellow-green flowers in spikes in spring.

Fruit, cone, nut, and seed descriptions

Flat, red-brown pod about 1 inch wide and several inches long; often curling; each pod contains several seeds. Some cultivars are fruitless (seedless).

Exclamation London planetree



London planetree is a hybrid resulting from a cross between the native sycamore and the non-native Asian planetree. Like sycamore, this is a large tree with beautiful peeling bark. Exclamation is resistant to anthracnose and frost cracking. The habit is more uniform and upright than the species.

Botanical name: *Platanus x acerifolia* 'Morton Circle'

All common names: London planetree

Family (English): Sycamore; planetree

Family (Botanic): Platanaceae

Planting Site: Residential and parks, City parkway, Wide median, Restricted sites

Tree or Plant Type: Tree

Foliage: Deciduous (seasonally loses leaves)

Native Locale: Non-native

Landscape Uses: Parkway/street, Shade tree, Specimen

Size Range: Large tree (more than 40 feet)

Mature Height: 60 feet

Mature Width: 30 feet

Light Exposure: Full sun (6 hrs direct light daily), Partial sun/shade (4-6 hrs light daily)

Hardiness Zones: Zone 5, Zone 6, Zone 7, Zone 8

Soil Preference: Moist, well-drained soil, Wet soil

Tolerances: Dry sites, Occasional drought, Wet sites, Occasional flooding, Alkaline soil, Clay soil

Acid Soils: Tolerant

Alkaline Soils: Moderately Tolerant

Salt Spray: Moderately Tolerant

Soil Salt: Intolerant

Drought Conditions: Tolerant

Poor Drainage: Moderately Tolerant

Ornamental Interest: Showy fruit, Attractive bark

Seasons of Interest: early winter, midwinter, late winter, early spring, mid spring, late spring, early summer, midsummer, late summer, early fall, mid fall, late fall

Flower Color & Fragrance: Inconspicuous

Shape or Form: Broad, Pyramidal

Growth Rate: Fast

Transplants Well: Yes

Wildlife: Birds, Insect pollinators, Small mammals

Tree & Plant Care

Plants grow best in moist, deep, rich well-drained soil in full sun. Does not tolerate shady sites.

Soil pH adaptable, moderately salt and drought tolerant.

Can be a messy tree since drops a lot of leaves, twigs and fruit.

Disease, pests, and problems

Can be affected by canker stain, anthracnose, leafspots, aphids, plant bug, scales, and borers.

Young plants can be susceptible to frost cracks.

Disease, pest, and problem resistance

Some cultivars vary in their resistance to anthracnose (see cultivars below).

Tolerant of high pH soil.

Native geographic location and habitat

Of hybrid origin.

Bark color and texture

Unique, gray-brown flaky scales that shed to expose mottled peeling patches of white, gray, and green.

Trees become nearly white near the top of tree.

Leaf or needle arrangement, size, shape, and texture

Simple, alternate, 6 to 7 inch wide leathery leaves have 3 to 5 lobes, similar to maple.

The leaf surface is bright green and paler underneath; margins are untoothed or nearly so.

Fall color is yellow-brown.

Flower arrangement, shape, and size

Monoecious, with separate male and female flowers. Flowers appear in early spring with the leaves as dense globose balls on long stalks (peduncles).

Male flowers are green, females are showier, bright burgundy-red.

Not ornamentally important

Fruit, cone, nut, and seed descriptions

Ball-like seed heads (1 inch diameter) hang in pairs from long stalks. Seeds shatter during winter months.

Royal Raindrops Crabapple



ROYAL RAINDROPS, is an upright-spreading , disease-resistant, easy-to-grow, crabapple tree that features (1) deeply lobed purple foliage (early leaves may be entire) which retains excellent color throughout summer, (2) magenta-pink single flowers in spring (April in St. Louis), (3) tiny maroon-red crabapples (1/4" diameter) that mature in late summer and (4) excellent orange-red fall color. This small tree typically matures to 15-20' tall and to 12-16' wide with a dense rounded canopy and excellent foliage density. Crabapples persist on the tree into early winter and are an attractive food source for birds.

Botanical name: *Malus* x 'JFS-KW5'

All common names: crabapple, flowering crab, flowering crabapple

Family (English): Rose

Family (Botanic): Rosaceae

Planting Site: Residential and parks, City parkway, Wide median, Under utility lines

Tree or Plant Type: Tree

Foliage: Deciduous (seasonally loses leaves)

Native Locale: North America

Landscape Uses: Massing, Parkway/street, Patio/sidewalk, Shade tree, Specimen, Utility

Size Range: Small tree 15-20 feet

Mature Height: 15-20 feet

Mature Width: 12-16 feet

Light Exposure: Full sun (6 hrs direct light daily)

Hardiness Zones: Zone 4, Zone 5, Zone 6, Zone 7

Soil Preference: Moist, well-drained soil

Tolerances: Dry sites, Alkaline soil

Acid Soils: Tolerant

Alkaline Soils: Intolerant

Salt Spray: Intolerant

Soil Salt: Intolerant

Drought Conditions: Moderately Tolerant

Poor Drainage: Intolerant

Planting Considerations: Excessive sucker growth, Messy fruit/plant parts

Ornamental Interest: Spring blossoms, Showy flowers

Seasons of Interest: early winter, mid spring, late spring, late summer, early fall, mid fall, late fall

Flower Color & Fragrance: Magenta-pink

Shape or Form: Round

Growth Rate: Moderate

Transplants Well: Yes

Wildlife: Birds, Migrant birds, Small mammals

Tree & Plant Care

Crabapples are adaptable to most soil conditions but prefer full sun in moist, well-drained soil.

Light pruning may be required to keep plants healthy or correct structural problems. Thinning crown allows light into center for better flowering.

Remove dead, diseased and crossing branches at any time.

Suckers from the base are problems with many crabapples, prune as close to ground as possible.

Disease, Pests & Problems

Apple scab, cedar apple rust, fire-blight, mildew, borer, scale, and Japanese beetle.

Disease, Pests & Problems

Disease resistance: scab (excellent), fire-blight (good), rust (good), mildew (good).

Kousa Dogwood



Kousa dogwood is an excellent small specimen tree. Two outstanding characteristics are the four-petaled, white flowers that appear above the foliage in June and reddish-purple fall color. In the Midwest, this is a hardier substitute for the acid-loving flowering dogwood. The shallow root system will benefit with a layer of mulch to maintain a cool root environment.

Botanical name: *Cornus kousa*

All common names: Kousa dogwood

Family (English): Dogwood

Family (Botanic): Cornaceae

Planting Site: Residential and parks, City parkway, Wide median

Tree or Plant Type: Tree

Foliage: Deciduous (seasonally loses leaves)

Native Locale: Non-native

Landscape Uses: Mixed border, Patio/sidewalk, Shade tree, Specimen

Size Range: medium tree (25-40 feet), Small tree (15-25 feet)

Mature Height: 20-30 feet

Mature Width: 21-30 feet

Light Exposure: Full sun (6 hrs direct light daily), Partial sun/shade (4-6 hrs light daily)

Hardiness Zones: Zone 4, Zone 5, Zone 6, Zone 7, Zone 8

Soil Preference: Acid soil, Moist, well-drained soil

Tolerances: Occasional drought, Alkaline soil

Acid Soils: Prefers

Alkaline Soils: Moderately Tolerant

Salt Spray: Moderately Tolerant

Soil Salt: Intolerant

Drought Conditions: Moderately Tolerant

Poor Drainage: Intolerant

Ornamental Interest: Spring blossoms, Fall color, Edible fruit, Showy fruit, Showy flowers, Attractive bark

Seasons of Interest: early winter, midwinter, late winter, late spring, early summer, late summer, early fall, mid fall

Flower Color & Fragrance: Pink, White

Shape or Form: Broad, Round

Growth Rate: Slow

Transplants Well: Moderate

Wildlife: Insect pollinators

Tree & Plant Care

Although tolerant of neutral pH soils, it prefers acid soil and may develop chlorotic symptoms (pale green leaves) in high pH soils.

Shallow root system benefits with a few inches of mulch to moderate soil temperature.

Best in part shade conditions in a protected site. Flowers on old wood, prune after flowering.

Disease, pests and problems

Heavy clay soil can contain moisture, which can lead to root rots.

Borers and leaf spots

Disease, pest, and problem resistance

More resistant to drought than flowering dogwood.

Resistant to the anthracnose (*Discula*) that is common on flowering dogwood.

Native geographic location and habitat

Native to Asia.

Bark color and texture

Bark is gray-brown and slightly exfoliating.

Leaf or needle arrangement, size, shape, and texture

Simple, opposite, 2 to 4 inch long with entire margins, elliptical shape; dark green leaves change to a burgundy-red in fall.

Flower arrangement, shape, and size

This tree blooms 2-3 weeks after native dogwoods.

True flowers are inconspicuous. 1 to 2 inch, white pointed bracts appear above the foliage and persist for several weeks.

Fruit, cone, nut, and seed descriptions

Large, attractive, 1 inch, raspberry-like fruit appear in August.

Redbud



In April and May, many neighborhoods are brightened by the purplish-pink flowers lining the dark branches of redbuds before their leaves open. This native plant, evolved in the understory and along wood edges of forests. It works especially well among evergreens that contrast with its color and shelter it from intense sunlight.

Botanical name: *Cercis canadensis*

All common names: Redbud, Eastern redbud, Red bud

Family (English): Pea

Family (Botanic): Fabaceae (formerly Leguminosae)

Planting Site: Residential and parks

Tree or Plant Type: Tree

Foliage: Deciduous (seasonally loses leaves)

Native Locale: North America

Landscape Uses: Massing, Patio/sidewalk, Shade tree, Specimen

Size Range: medium tree (25-40 feet), Small tree (15-25 feet)

Mature Height: 20-30 feet

Mature Width: 25-35 feet

Light Exposure: Full sun (6 hrs direct light daily), Partial sun/shade (4-6 hrs light daily)

Hardiness Zones: Zone 4, Zone 5, Zone 6, Zone 7, Zone 8, Zone 9

Soil Preference: Moist, well-drained soil

Tolerances: Alkaline soil, Clay soil

Acid Soils: Tolerant

Alkaline Soils: Tolerant

Salt Spray: Intolerant

Soil Salt: Intolerant

Drought Conditions: Intolerant

Poor Drainage: Intolerant

Planting Considerations: Messy fruit/plant parts

Ornamental Interest: Spring blossoms, Fall color, Persistent fruit/seeds, Showy fruit, Showy flowers, Attractive bark

Seasons of Interest: mid spring, late spring, early fall, mid fall

Flower Color & Fragrance: Pink, Purple

Shape or Form: Irregular, Multi-stemmed, Round

Growth Rate: Moderate

Transplants Well: No

Size & Form

A small tree, often multi-stemmed, reaching 20 to 25 feet high and wide.

Tree & Plant Care

Best planted in part shade in the spring.

In full sun supplemental water in dry periods.

Buy from a local or regional source to ensure hardiness.

Plants benefit with a 3 to 4 inch layer of organic mulch to protect the tree's shallow root system.

Relatively short-lived with a 20 to 25 year life span.

Disease, pests and problems

Suffers in full sun or extreme summer heat.

Susceptible to borers, cankers and verticillium wilt.

Disease, Pest & Plant Resistance

Tolerant of black walnut toxicity

Native geographic location and habitat

C-Value: 10

Commonly found in wooded areas.

Bark color and texture

Brown with an inner orange-red coloration.

Older bark sheds to reveal red inner bark.

Leaf or needle arrangement, size, shape, texture, and color

Simple, alternate leaves, 3 to 5 inches long, leaves are often wider than they are long; heart-shaped with an entire margin.

Dark green changing to a clear yellow; fall color sometimes yellow green.

Flower arrangement, shape, and size

Flowers are rose-pink to magenta; small clusters of pea-like blossoms appear along branches and twigs in early May.

Fruit, cone, nut, and seed descriptions

A 2 to 3 inch long pod. They turn from reddish green to brown and persist into the winter.

Heritage River Birch



River birch is a popular, fast-growing native tree for the home landscape. Attractive salmon-pink to reddish-brown bark exfoliates to reveal lighter inner bark. Dark green foliage turns a beautiful buttery yellow in the fall. This species is resistant to bronze birch borer (BBB). This species is native to the region.

Botanical name: *Betula nigra*

All common names: river birch, red birch

Family (English): Birch

Family (Botanic): Betulaceae

Planting Site: Residential and parks, Restricted sites

Tree or Plant Type: Tree

Foliage: Deciduous (seasonally loses leaves)

Native Locale: North America

Landscape Uses: Shade tree, Specimen

Size Range: medium tree (25-40 feet)

Mature Height: 30-40 feet

Mature Width: 20-30 feet

Light Exposure: Full sun (6 hrs direct light daily)

Hardiness Zones: Zone 4, Zone 5, Zone 6, Zone 7, Zone 8, Zone 9

Soil Preference: Acid soil, Moist, well-drained soil, Wet soil

Tolerances: Wet sites, Occasional flooding, Clay soil, Road salt

Acid Soils: Prefers

Alkaline Soils: Intolerant

Salt Spray: Moderately Tolerant

Soil Salt: Moderately Tolerant

Drought Conditions: Intolerant

Poor Drainage: Moderately Tolerant

Ornamental Interest: Spring blossoms, Fall color, Attractive bark

Seasons of Interest: early winter, midwinter, late winter, early fall, mid fall, late fall

Flower Color & Fragrance: Inconspicuous

Shape or Form: Pyramidal, Round

Growth Rate: Fast

Transplants Well: Yes

Wildlife: Game birds, Insect pollinators, Small mammals, Songbirds

Tree & Plant Care

River birch is drought sensitive and does not like hot, dry summers. Plants benefit with a 3 to 4 inch layer of mulch and supplemental water in dry periods.

Birches are considered “bleeders”, avoid pruning in late spring before leaves emerge.

Disease, pests and problems

Iron chlorosis is common in high pH soils.

Susceptible to aphids, leaf miners and leaf spots.

Disease, pest, and problem resistance

Resistant to bronze birch borer

Tolerant of black walnut toxicity

Native geographic location and habitat

C-Value: 7

Common along rivers and streams.

Bark color and texture

An attractive cream and cinnamon-colored peeling bark and weeping branches.

Leaf or needle arrangement, size, shape, and texture

Simple, alternate, 2 to 3 inches long, triangular or wedge-shaped with doubly serrated tooth margins.

Dark green with lighter undersides, turns yellow in fall.

Flower arrangement, shape, and size

Male flowers are long, slender catkins near tips of stems; female flowers stand upright along same twig.

Inconspicuous.

Fruit, cone, nut, and seed descriptions

Cone-like with hairy clusters of winged seeds, ripen in spring.