



Department of
Environmental
Conservation

Fall 2024 Planting Guide



Compiled by Ranier Lucas & Thomas R. Flynn

JULY 2024, TIOGA COUNTY, NEW YORK

Acknowledgments

This guide identifies the native tree and shrub species selected for the Fall 2024 NYS DEC ‘Trees for Tributaries’ program. These species, selected by Ranier Lucas, Buffer Technician with the Upper Susquehanna Coalition, have high wildlife value, are tolerant of saturated soils and are commonly found in or around streams, wetlands and river banks.

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Special thanks to NC State’s North Carolina Extension Gardener Plant Toolbox for providing hard-to-find pictures of unique species and creative commons licensing for public use of those photos (CC-0 to CC-4). Photographer’s information can be found on each species’ respective NC Plant Toolbox page. NC Plant Toolbox can be accessed using your smart device to scan the provided QR Code, or by using this hyperlink and searching the species of interest: <https://plants.ces.ncsu.edu/>.

How to Use This Guide:

Each species was first grouped by their U.S. Fish and Wildlife Service classifications *Shrub* (pg.3) or *Tree* (pg.15). Within each group, species were then organized by *scientific name* by *genus* and then *species*. The Table of Contents (pg. 2) lists each individual species in alphabetical order by common name.

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Shrubs



Smooth Alder *Alnus Serrulata* “Ancient name for Alder / Small-toothed”

Characteristics: Capable of growing 12 to 20 feet. Flowers in May to April with Purple flowers. Fruits august to February with brown conelike structures. Fall color ranges yellow to red.

Conditions: Requires full sun. Prefers moist to wet soil conditions. Soil texture preference ranges between Clay and Loamy soils and with a pH range of 5.5 to 7.5.

Habitat: Fresh tidal and non-tidal marshes, shrub swamps, forested wetlands

Wildlife: High wildlife value. Supports song birds, water fowl and small mammals.

Identification: Dull green 2-4" long leaves alternating up the stem, with serrulate margins pointed tips and wedge-shaped at the base, ovate and elliptical.

Notes: Forms ‘thickets’ around water’s edge, can tolerate 3in of flooding and fixes nitrogen.



Black Chokeberry *Aronia melanocarpa* “Chokeberry / Blackfruit”

Characteristics: Capable of growing 3 to 6 feet. Flowers in April to May with white to pink-tinged petals. Fruits September to November black berries. Fall color crimson red.

Conditions: Grows well in the partial or shaded sun. Prefers wet soil conditions. Soil texture preference ranges between Clay, Loamy, sandy soils, and Organic decaying material with a pH range of 5.1 to 6.5. Can tolerate PD and SWPD soil drainage characteristics.

Habitat: Thrives in fresh tidal marshes and swamps, forested wetlands, floodplains, wet meadows; seasonally to regularly flooded or saturated. Tolerates flooding.

Wildlife: Supports songbirds and small mammals.

Identification: Showy display of clustered white flowers borne in corymbs 2 – 2.5 inches across. As the season progresses, the leaves turn a deep, glossy green. Finely serrated edges of the leaf alternate along the stem.

Notes:



Buttonbush *Cephalanthus occidentalis* “Head flower / of the west”

Characteristics: Capable of growing 6 to 12 feet. To flower, it needs full sun. Flowers between July and August with creamy white petals. Fruits from September to January bear green to brown berries. Fall color is described as yellow-green.

Conditions: Grows well in full, partial, and shaded sunlight. Prefers moist or wet soil conditions. Soil texture preference ranges between Clay, Loamy, Sandy, and Organic decaying material with a pH range of 6.1 to 8.5. Can tolerate PD and SWPD soil drainage characteristics.

Habitat: Freshwater tidal and non-tidal marshes, shrub swamps, forested wetlands; stream, lake, and pond edges. It can tolerate drought and flood up to 36 inches.

Wildlife: High wildlife value. Supports habitat for moth larva, butterflies, hummingbirds, waterfowl nesting, small mammals, and beneficial insects.

Identification: Opposite branching, ovate to elliptic in shape with smooth margins. Flowers are globe-shaped.

Notes:



Red Osier Dogwood *Cornus sericea* “horn / silky”

Characteristics: Capable of growing 6 to 12 feet. Flowers between May and June with white flat clustered petals. Fruits August to September bear white berries and red stems. Fall color described as purple.

Conditions: Very tolerant variety of conditions. Grows well in full, partial, and shaded sunlight. Prefers dry to moist soil conditions. Soil texture preference ranges between Clay to Loam with a pH range of 6.1 to 8.5. Can tolerate PD, SWPD and WD soil drainage characteristics.

Habitat: Open wooded floodplains, forested wetlands, shrub swamps, rocky woods or ledges, fencerows.

Wildlife: High wildlife value. Provides habitat for songbirds, waterfowl, and small mammals.

Identification: Bright red upright branches with leaves that are opposite, with an ovate shape growing to 3-6 inches long and 1-3 inches wide. Typical of dogwood venation turning towards the tip. No brown pith in older branches.

Notes:



Witchhazel *Hamamelis virginiana* “Fruiting and Flowering together / from Virginia”

Characteristics: 15 to 30 feet. Flowers between September to December with yellow flowers. Fruits tan/brown capsules between October to November. Fall color is a yellow.

Conditions: Prefers partial sun to shade. Soil condition preferences between dry to moist that have textures of Clay, Loamy or Sandy with a pH of 5.5 to 6.5. Tolerant of SWPD to WD.

Habitat: moist or dry woods or brushy fields, floodplains

Wildlife: Attracts song birds and small mammals

Identification: In-equilateral wavy margined dark green above and paler below leaf. Alternate, ovate to obovate, toothed, base oblique; leaf buds pubescent.

Notes: noted for fall/winter bloom; medicinal uses, leaves may persist into winter.



Winterberry *Ilex verticillata* “Evergreen Oak / whorls”

Characteristics: 6 to 12 feet. Flowers between June to July with greenish-white flowers close to stem. Fruits red berries between Augusts to February. Fall color is a yellow to brown.

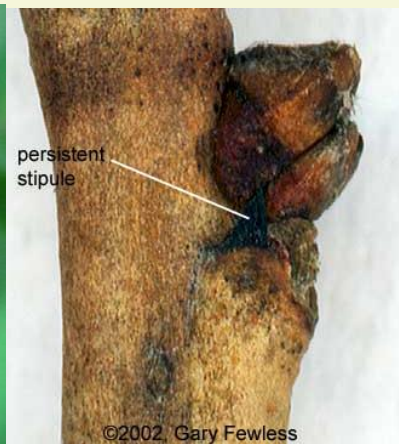
Conditions: Tolerant of full sun, partial sun and shade. Soil condition preferences between moist to wet that have textures of Clay, Loamy, Sandy or Organic matter with a pH of 4.5-6.5

Habitat: Fresh tidal swamps, shrub swamps, forested wetlands

Wildlife: High wildlife value. Supports songbirds, water fowl and small mammals.

Identification: Hairy, simple, smooth, acuminate, cuneate, obovate to oblong-ovate 1.5-4 inches long double serrated or doubly serrated alternate leaves. Leaves are pubescent on veins beneath.

Notes: Berries contain saponins that can be poisonous to humans in large quantities.



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Spicebush *Lindera benzoin* “Named for Johann Linder / Aromatic Gum”

Characteristics: Capable of growing 6.5 to 16 feet. Flowers between March and may yellow flowers. Fruits September to October scarlet red berries. Fall color is yellow.

Conditions: Grows well in partial sun or shade. Prefers moist to wet soil conditions. Soil texture preference ranges between Loamy to sandy soils and with a pH range of 4.5 to 6.5. Can tolerate PD and SWPD soil drainage characteristics.

Habitat: woods, wooded slopes, dunes, floodplain forests

Wildlife: High wildlife value. Supports song birds, butterflies and small mammals.

Identification: The Spice bush has thick, leathery, alternate, oblong-obovate, light green leaves (to 5" long). Leaves have smooth margin and aromatic (spicy fragrance) when crushed.

Notes: All parts of the Spicebush are considered edible; herbal uses. Sensitive to drought and heat.



Ninebark “bladder fruit / wealth profusion leaves”

Characteristics: Capable of growing 5 to 12 feet. Flowers in May to July with white to pink petals. Fruits from July to March bear orange to red berries. Fall color is described as yellow to purple.

Conditions: Grows well in full, and partial sun. Prefers wet soil conditions. Soil texture preference ranges between Clay and Loamy soils with a pH range of 6.1 to 8.5. Drought tolerant.

Habitat: Thickets, along streams in sand or gravel bars, rocky slopes

Wildlife: High wildlife value. Supports songbirds, waterfowl, small mammals, and beneficial insects.

Identification: Young stems are green, older stems turn a darker reddish-brown becoming papery bark that continually molts in thin strips. Leaves are alternate and larger lower leaves will have 3 to 5 pointed lobes.

Notes:



Silky Willow *Salix sericea* “Near water or ‘to jump’ / silky”

Characteristics: Capable of growing to 12 feet. Flowers bloom June to July with yellow petals. Fall colors consist of yellow and green.

Conditions: Prefers full sun, medium sun or shaded areas. Preferred moisture conditions range from moist to wet. Soil texture preference ranges between Clay, Loamy or Sandy with a PH between 5.2 – 7. Does not tolerate rocky soils.

Habitat: marshes, ditches, low woods

Wildlife: High wildlife value. Provides habitat for small mammals. Supports Viceroy Larvae and adult butterflies and Acadian Hairstreak butterfly.

Identification: Alternate, narrowly lanceolate to lanceolate, 6 to 14 cm long by 1 to 3 cm wide gradually tapering to a sharp point, forming concave sides along the tip, wedge-shaped at the base, closely glandular-serrate, dark green and minutely hairy to smooth above, waxy-white and silky below.

Notes: difficult to identify when not in flower.



Elderberry *Sambucus nigra subsp. canadensis*

“Stringed instrument carved from elder wood / Black subspecies / Canada”

Characteristics: Capable of growing 6 to 12 feet. Flowers in May with white petals. Fruits August to September and bears purple to blackberries. Fall color is described as yellow-green.

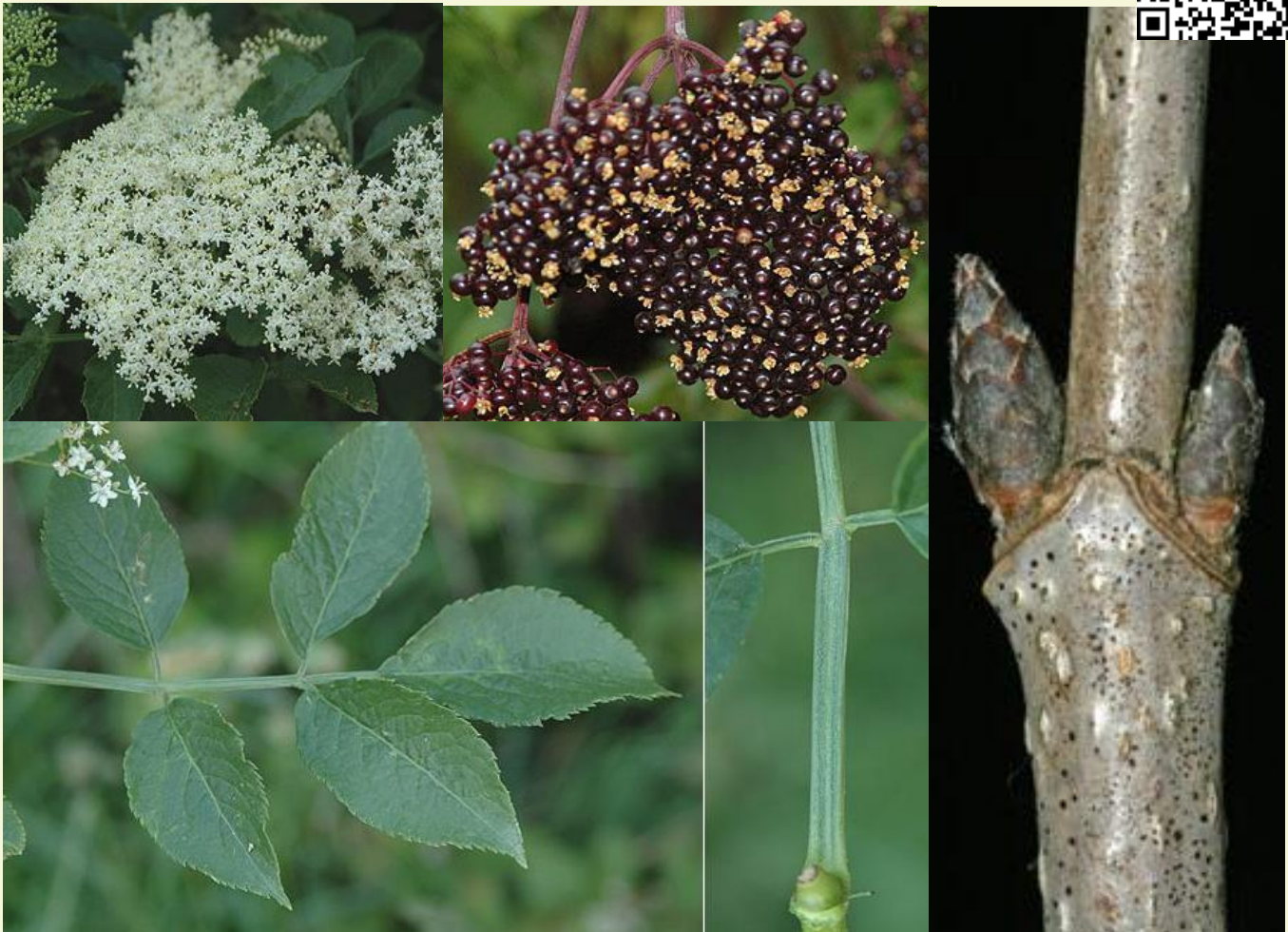
Conditions: Grows well in full, partial, and shaded sunlight. Prefers dry, moist, or wet soil conditions. Soil texture preference ranges between Clay, Loamy, Sandy, and Organic decaying material with a pH range of 6.1 to 7.5. Tolerant of PD, SWPD and WD drainage conditions.

Habitat: Fresh tidal and non-tidal marshes, swamps, wet meadows, moist woods, fields.

Wildlife: High wildlife value because the berries are eaten by 48 species of birds. Provides habitat for Songbirds and small mammals.

Identification: The leaves are oblong and have ‘sawtooth’ sharply serrated edges. They are arranged in opposite pairs with 5 to 7 leaves on each stem.

Notes: Berries are a preferred edible, while the roots and stem have toxic properties. The hollow stems are used to make flutes. New growth of American elder contains a glycoside that can be fatal to livestock.



Arrowwood *Viburnum dentatum* “Wayfaring tree/ polished tooth”

Characteristics: Capable of growing 10 to 15 feet. Flowers between May and June with white petals. Fruits from September to November bear blue or black berries. Fall color is described as reddish-purple.

Conditions: Grows well in full, partial, and shaded sunlight. Prefers dry, moist, and wet soil conditions. Soil texture preference ranges between Loamy, Sandy, and Organic decaying material with a pH range of 4.6 to 6.5. Tolerant of PD, SWPD and WD drainage conditions.

Habitat: Swamps, wet woods, bogs, floodplain forests, streambanks, low, wet acid-sand habitats.

Wildlife: High wildlife value. Supports Butterflies, bumblebees and other native bees. Provides habitat for songbirds and small mammals.

Identification: Flowering shrub that is part of the honeysuckle family. Stems grow very straight in an upright with a rounded shape. Leaves are glossy green, oval foliage with toothed edges. The leaves grow around 4 inches long.

Notes: Conservation status is threatened. Edible fruits and can survive within close proximity to Black Walnut trees.



Trees

Silver Maple *Acer saccharinum* “sharp / of or from sugar”

Characteristics: Capable of growing 50 to 100 feet with a 75 to 100 foot spread. Flowers during February into March greenish yellow petals. Fruits during April to June with tan-brown winged fruits. Fall colors are described as pale yellow.

Conditions: Requires full sun or partial sun. Requires moist to wet soil. Soil texture preference ranges between Clay, Loamy and Sandy with a pH of 5.2 - 7.1. Tolerant of rocky soils, PD, MWD and WD drainage conditions.

Habitat: Floodplains, stream sides, river bottoms, pond and lake edges

Wildlife: Attracts song birds, small mammals, game birds (*i.e. turkeys*) moths and butterflies. Even bats begin to roost as the bark becomes ‘shaggy’ with age. Cavities form

Identification: Compound, 3 to 6 in. opposite, palmately veined leaf with 5 deeply cut lobes; silvery underside; medium green on top, yellow, brown, green combination fall color.

Notes: This tree grows at a rapid pace. Wood breaks easily



Sugar Maple *Acer saccharum* “sharp / sugar”

Characteristics: Capable of growing 60 to 100 feet with a 50 to 75 foot spread. Flowers during April and May yellow-green petals. Fruits during September to October with red-brown winged fruits. Fall colors are described as yellow, orange, and red.

Conditions: Tolerates full sun, partial sun or shade. Requires moist soil. Prefers soil textures of Loamy and Sandy with a pH of 4 - 7.3. Moderately tolerant of rocky soils, MWD and WD drainage conditions.

Habitat: Upland woods, mountain coves and slopes

Wildlife: Song birds and small mammals

Identification: Leaves are simple and opposite on the stem, 3" to 5" in length. Leaves will have three- to five-pointed, smooth-edged lobes. They are dark green on the upper surface of the leaf and a lighter green below

Notes: “Brilliant fall color.” Used to produce maple syrup. Begins to flower after 20 years. Sugar maples present allelopathic tendencies when grown in close proximity to Yellow Birch. Goldenrod and Asters present a similar allelopathic property preventing germination of seeds and stunting growth of nearby sugar maples.



Serviceberry *Amelanchier canadensis* “Shadbush / of Canada”

Characteristics: 35 to 50 feet. Flowers between March and May with white flowers. Fruits red-purple-black berries in June. Fall color is orange to red.

Conditions: Grows well in partial sun or shade. Prefers soils with moisture conditions between moist to wet. Soil texture preference ranges between Loamy to Sandy soils and with a pH of 5.5 to 7.5. Can tolerate SWPD, soil drainage characteristics.

Habitat: Swamps, low ground, woods, thickets

Wildlife: Supports songbirds and small mammals.

Identification: Simple, alternate, serrate margins, elliptical to ovate 1"-3" long; not very distinct. Has rounded to cordate base, acute apex. Good yellow-orange to red-orange fall color. The young leaves are covered with soft hairs that disappear as the leaf matures.

Notes: Fruits a desirable edible with cherry-like flavors. Does not host Spotted Winged Drosophila



Basswood *Tilia americana* “Linden / broad leaved American”

Characteristics: Capable of growing 70 to 100 feet with a 50 to 75 foot spread. They bloom very fragrant yellow flowers from June to July. Fruits September to October tan brown winged fruits. Fall color is described as yellow or brown.

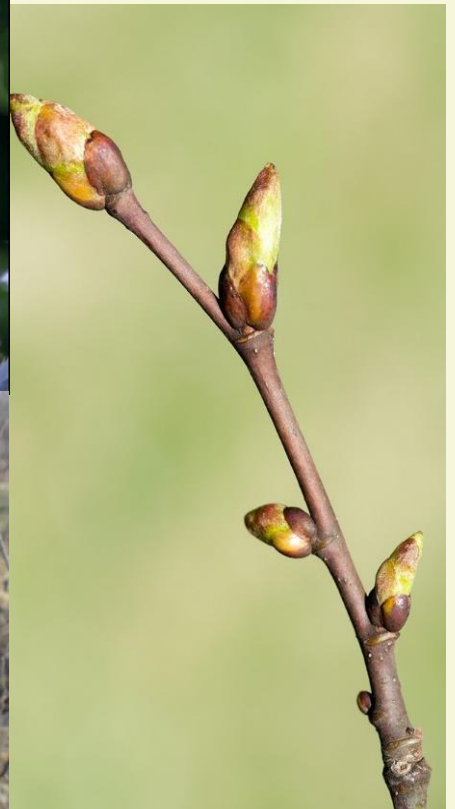
Conditions: Requires partial sun or shaded areas. Moisture conditions require moist soils with a soil texture of Loamy or Sandy soils with a pH of 4.5 to 7.5. Tolerant of MWD and WD drainage conditions.

Habitat: Woods, slopes

Wildlife: Attracts butterflies, songbirds, small mammals and beneficial insects. Important source of pollen for pollinators

Identification: Leaves are simple, alternate, and deciduous. Leaves are variable in size and shape, but mostly oval-shaped or heart-shaped with an acute apex and unequal base 3 to 5 ½ inches long and 2 to 3 inches wide. The leaf margin is finely serrated.

Notes:



River Birch *Betula nigra* “Birch / black”

Characteristics: Capable of growing 50 to 75 feet with a 35 to 50 foot spread. Flowers during April and May Fruits during July and August with Tan brown cones like fruit. Fall color is described as yellow.

Conditions: Requires partial shade to completely shaded sunlight, Moisture conditions require moist soils with a soil texture of Clay or Loamy soils with a pH of 4-6. Moderately tolerant of rocky soils. Tolerant of PD, MWD, WD.

Habitat: Along streams, rivers, ponds and swamps

Wildlife: High wildlife value, attracts song birds and home to beneficial insects.

Identification: Ovate in shape; 4-7½cm (1½-3”) in length: Double-toothed with even, V-shaped bases: Hairy leafstalks: Shiny dark green from above; whitish (can be velvety) from below.

Notes: Attractive peeling bark, earliest fruiting of the birch family tolerant of bronze birch bore.



Hackberry *Celtis occidentalis* “Greek for sweet fruit / of the west”

Characteristics: Capable of growing 40 to 100 feet with a 40 to 100 foot spread. They flower between April to May. Fruits September to December purple brown berries fruits. Fall color is described as yellow.

Conditions: Tolerant of full sun partial sun or shaded areas. Moisture conditions range from dry, moist and wet soils with a soil texture of Clay, Loamy or Sandy soils with a pH of 6 to 7.8. Tolerant of rocky soils, MWD and WD drainage conditions.

Habitat: drainage basins, floodplains, wooded slopes, high rocky limestone bluffs bordering streams, windbreaks.

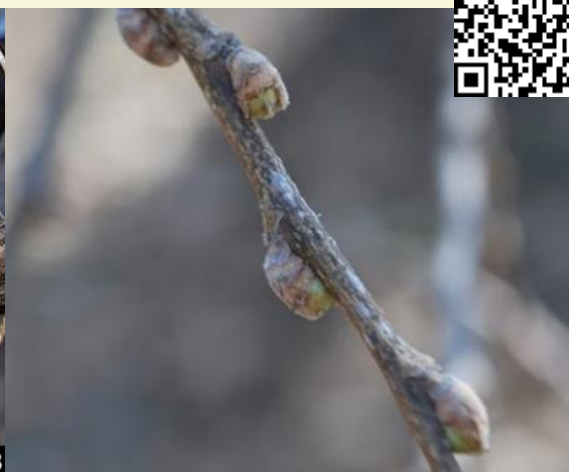
Wildlife: High wildlife value attracts small mammals, song birds and is a host to butterfly larva.

Identification: leaves grow in an alternate pattern with serrated edge, uneven base. Galls or bumps on leaf are common. Bark is grayish, with distinct hard-corky ridges (occasional smooth patches).

Notes: Excellent ornamental. Seedlings are much more sensitive to saturation than older trees. Slight allelopathic properties with herbaceous plant communities.



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American Hazelnut *Corylus americana* “helmet / from America”

Characteristics: Capable of growing to 10 to 15 feet. Male flowers are brown and Female flowers are red from March to April. Fruits August to September with brown edible nuts. Fall color is yellow-orange.

Conditions: Prefers partial sun. Preferred moisture conditions range from dry to moist. Soil texture preference ranges between Clay or Loamy preferred pH 6.1-7.5. Can tolerate rocky soils and PD, SWPD and WD soil drainage characteristics.

Habitat: Dry woodlands, forest edges, hillsides, fence rows, ravines, floodplain woods, brushy pastures.

Wildlife: High wildlife value. Provides habitat for songbirds and small mammals.

Identification: Leaves grow up to 6 inches long by 4 inches wide oval leaves are dark green with doubly serrated margins. The lower surface has stiff short hairs. The bark is gray-brown and smooth with a crisscross netted pattern.

Notes:



Black Tupelo / Gum *Nyssa sylvatica* “Water nymph / of the forest”

Characteristics: Capable of growing to 30 to 75 feet with a spread about 20 to 50 feet. Flowers bloom April to June with greenish white flowers. Fruits June to July with blue/black fleshy berries. Fall colors described as outstanding fall colors of scarlet red.

Conditions: Prefers full to medium light. Prefers moisture conditions ranging from dry moist and wet. Soil texture preference ranges from Loamy to Sandy with a pH between 4.5–6. Does not tolerate rocky soils, Tolerant of PD, SWPD and WD.

Habitat: Preferred forested seasonal wetlands, swamp borders, upland woods, dry slopes; seasonally flooded or saturated.

Wildlife: High wildlife value. Provides habitat for song birds, water fowl and small mammals. Cavities attract bats and other den animals.

Identification: Leaves are 3 to 6 inches long and 1/2 to 3 inches wide, alternate leafing arrangement. Roughly oval with sharp, blunt points, broadest near the tip, irregular coarse teeth near the tips of some leaves, and branches held more or less 90 degrees to the main stem. On sprouts or young trees, the leaves may have a few coarse teeth.

Notes: slow growing, Tupelo honey is highly prized, ranked as one of the more dependable den tree species.



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American Sycamore *Platanus occidentalis* “Plane tree / of the west”

Characteristics: Capable of growing 75 to 100 feet with a 75 to 100 foot spread. Flowers during April and May, the male flower is greenish-yellow, and the female flower is red. Fruits ripen to a green brown color in the fall and persist into early winter. Each ball is fibrous interiorly and contains many seed-like fruits called achenes. Fall colors are described as brown, copper, gold and yellow. Iconic bark, mottled in a scaly pattern exfoliating to expose white to cream inner bark which darkens to gray with age before flaking off.

Conditions: Requires full direct sun 6+ hours a day. Requires soil moisture levels between wet, moist and well-drained soil. Prefers soil textures of Clay, Loamy, Sandy and thrives in high organic matter with a pH of 5.2 - 7.1. They are highly adaptable. Tolerant PD, MWD and WD drainage conditions.

Habitat: stream / river banks, seasonally flood prone areas

Wildlife: Song birds, mammals and insects

Identification: The leaves are large, 3 to 5 lobed, alternate, simple, stipulate, broadly ovate, acute, truncate to cordate, coarsely acuminate toothed, medium to dark green, 4 to 9 inches wide, and usually wider than long. The upper surface is smooth and bright green, and the undersides are paler and pubescent. The leaves can appear folded over or droopy. The petiole flares out and covers over a leaf bud at the base. The leaves turn yellow to brown in the fall. Leaves are floccose to tomentose when young, and become pubescent on veins at maturity. Stipules on young leaves persist into fall, are large, and are acuminate toothed.

Notes: sap is sweet and has been used for syrup and sugar, indigenous peoples used hollow trunks for canoes. The wood makes for good furniture.



American Plum *Prunus americana* “Plum / From America

Characteristics: Capable of growing 10 to 20 feet with a broad 15 to 25 foot spreading crown. Blooms white unpleasantly aromatic flowers that bloom from March to April. Fruits from June to July Purple/Lavender Red/Burgundy fleshy fruits. Fall color described as Gold/Yellow Red/Burgundy.

Conditions: Tolerant of full sun to partial sun. Moisture conditions tolerant of moist to dry soils with a soil texture of Clay, Loamy or Sandy soils with a more acidic pH of 6 to 6.8. Tolerant of PD, MWD and WD drainage conditions.

Habitat: Forests, fence rows, fields, forest edges, recreational areas pollinator gardens

Wildlife: Attracts songbirds, small mammals and larval host plant for several species of butterflies such as the Coral Hairstreak, Eastern Tiger Swallowtail and Viceroy.

Identification: The American plum has toothed, oblong to ovate leaves that are 3-4" long and are alternate. The underside is pale green. The bark is smooth and reddish/gray with numerous horizontal lenticels. Along the branches small thorns can be found. As the tree ages, the bark becomes rough with irregular ridges and exfoliating curling strips. It can form dense thickets from root suckering.

Notes: The fruits are edible but the seeds leaves and twigs have small amounts of a cyanide compound called Cyanogenic glycosides.



Black Cherry *Prunus serotina* “Plum / Flowering late”

Characteristics: Capable of growing 40 to 75 feet with a 20 to 35 foot spread. Blooms white flowers bloom from June to July. Fruits from August to September bears black fleshy fruits. Fall color described as yellow or red.

Conditions: Requires partial sun or shaded areas. Moisture conditions require moist soils with a soil texture of Loamy or Sandy soils with a pH of 4.5 to 7.5. Tolerant of PD, MWD and WD drainage conditions.

Habitat: Forests, fence rows, fields, forest edges

Wildlife: Attracts songbirds and small mammals.

Identification: 2 and 6 inches long with a long, pointed tip and tapered base. You can also identify the leaves by the fine serrations along the edges. Leaves develop early in spring, usually before those of most surrounding trees, growing on alternating sides of the branch.

Notes:



Swamp White Oak *Quercus bicolor* “Oak / of two colors”

Characteristics: Capable of growing 60 to 100 with a 50 to 75 foot spread. Flowers in May to June with drooping yellow green catkins. Fruits take 1 year to mature between September to October with brown to tan acorns. Bright red, reddish purple to rusty brown fall colors.

Conditions: Grows well full sun or partial sun, conditions. Prefers wet soils conditions. Soil texture preference ranges from Clay, Loamy to sandy soils with a pH range of 4.3 to 6.5. Tolerant of PD and MWD drainage conditions.

Habitat: bottomlands, swamp and stream edges

Wildlife: High wildlife value, supports beneficial insects, song birds, water fowl, moths and butterflies as well as small and large mammals.

Identification: Leaves are deciduous, alternate, obovate to narrowly elliptic or narrowly obovate, 8 to 21 cm long and 4 to 16 cm wide, usually with regularly spaced, shallow, rounded teeth, or toothed in distal half only, or moderately to deeply lobed, upper surfaces dark green and glossy, lower surfaces lighter green to whitish, softly hairy. Terminal buds short, blunt and light brown, thread-like stipules often present around the end.

Notes: Bark gradually changes from reticulated to smooth Seed production begins 20 to 30 years of age. Growth in alkaline soils (with pH above 7.2) may cause iron chlorosis.



Pin Oak *Quercus Palustris* “Oak / of the marsh”

Characteristics: Capable of growing 50 to 80 with a 50 to 75 foot spread. Flowers between April and May with drooping yellow green catkins. Fruits take September to October with brown to tan acorns. Red or bronze fall colors.

Conditions: Requires Full. Prefers moist to wet soils conditions. Soil texture preference is Clay or Loamy soils with a pH range of 4.5 to 6.5. Intolerant of shade. Tolerant of PD and MWD drainage conditions.

Habitat: bottomlands or upland flats

Wildlife: High wildlife value, supports beneficial insects, song birds, water fowl, as well as small and large mammals.

Identification: Alternate, simple, 3 to 6 inches long, with 5 to 9 lobes and u-shaped sinuses. The bark is smooth and reddish to grayish-brown when young, then darker with shallow fissures as it ages.

Notes: It is among the faster-growing oaks. It has many short or pin like branchlets on the main branches. Lower branches bend downward.



Roble de los pantanos, *Quercus palustris*



Black Willow *Salix nigra* “Near water or ‘to jump’ / black”

Characteristics: Capable of growing to 35 to 50 feet. Flowers bloom March to April with yellow-green petals. Fruits April to May with yellow, cone/cone-like fruit. Fall colors consist of yellow and green.

Conditions: Prefers full to medium light. Preferred moisture conditions range from moist to wet. Can tolerate PD SWPD WD soil conditions. Soil texture preference ranges between Clay, Loamy or Sandy with a pH between 6–8. Can tolerate salinity of up to 0.5 ppt.

Habitat: Preferred stream bank stabilizer spreads by suckers. Thrives in fresh tidal marshes and swamps, forested wetlands, floodplains, wet meadows; seasonally to regularly flooded or saturated. Tolerates flooding.

Wildlife: High wildlife value. Provides habitat for song birds and small mammals. Preferred food for ruffed grouse and pine grouse beak.

Identification: It bears narrow, lanceolate, finely serrate, medium to dark green leaves, 5 in. long (12 cm), tapering to elongate tips.

Notes: No terminal buds

