



**DELAWARE
CENTER FOR THE
INLAND BAYS**

preserve • protect • restore



Community Mini-Forests

Plant Catalog

Version 1.0
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Community Mini-Forest Plant Catalog

Common Name	Scientific Name	Avg Height (ft)	Avg Width (ft)	Bloom Time	Bloom Color	Moisture	Light Req ¹	Growth Rate ²
American Beautyberry	Callicarpa americana	3-6	3-6	Jun-Aug	Lavender, pink, or white	Medium	FS, PS	Fast
American Elderberry	Sambucus canadensis	5-12	6-12	Jun-Jul	Creamy white	Medium – wet	FS, PS	Fast
American (Common) Persimmon	Diospyros virginiana	30-80	20-35	May-Jun	Creamy white to greenish-yellow	Dry – medium	FS	Moderate
Arrowwood	Viburnum dentatum	6-10	6-10	May-Jun	Creamy white	Medium	FS, PS	Moderate
Black Gum / Black Tupelo	Nyssa sylvatica	30-50	20-35	May-Jun	Greenish-white	Moist	FS, PS	Slow to moderate
Red Osier Dogwood	Cornus sericea	6-9	6-10	May –Jun	Creamy white	Medium - moist	FS, PS	Fast
Silky Dogwood	Cornus amomum	6-12	6-12	May-Jun	Yellowish-white	Medium – wet	FS, PS	Moderate
Chinquapin	Castanea pumila	10-30	Varies	Jun-Jul	Creamy white	Medium	FS, PS	Moderate
Groundsel Bush	Baccharis halimifolia	5-12	4-7	Aug-Oct	Snowy-white	Medium – wet	FS	Fast
Green Hawthorn	Crataegus viridis	20-35	20-35	May	White	Dry – medium	FS	Slow
Scarlet Hawthorn	Crataegus coccinea	20-25	20-25	May	Creamy white	Medium	FS	Moderate

¹Light Requirements: FS = Full Sun; PS = Part Shade; S = Shade

²Growth Rates: Slow: less than 12 inches/year; Moderate: 13-24 inches/year; Fast: more than 24 inches/year

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Common Name	Scientific Name	Avg Height (ft)	Avg Width (ft)	Bloom Time	Bloom Color	Moisture	Light Req ¹	Growth Rate ²
Red Maple	Acer rubrum	40-70	30-50	Mar-Apr	Red or yellow	Medium – wet	FS, PS	Fast
Nannyberry	Viburnum lentago	15-18	8-12	Jun-May	Creamy white	Medium	FS, PS	Moderate
Chinquapin Oak	Quercus muehlenbergii	40-60	50-70	Apr-May	Male yellow; Female reddish	Dry – medium	FS	Moderate
Northern Red Oak	Quercus rubra	50-75	50-75	May	Yellowish-green	Dry – medium	FS	Moderate to fast
White Oak	Quercus alba	50-80	50-80	May	Male yellow-green Female reddish	Dry – medium	FS	Slow to moderate
Willow Oak	Quercus phellos	40-75	25-50	Mar-Apr	Yellow/green	Medium – wet	FS	Fast
Eastern White Pine	Pinus strobus	50-80	20-40	n/a	n/a	Medium	FS, PS	Fast
Loblolly Pine	Pinus taeda	60-90	20-40	Spring	Male red/yellow Female yellow/purple	Medium - wet	FS	Very fast
Eastern Prickly Pear	Opuntia humifusa	0.5-1.3	1-1.5	Jun-Jul	Yellow	Low	FS	Moderate
Smooth Sumac	Rhus glabra	9-15	9-15	Jun-Jul	Greenish-yellow	Dry - medium	FS, PS	Moderate
Staghorn Sumac	Rhus typhina	15-25	15-25	Jun-Jul	Greenish-yellow	Dry – medium	FS, PS	Fast

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Common Name	Scientific Name	Avg Height (ft)	Avg Width (ft)	Bloom Time	Bloom Color	Moisture	Light Req ¹	Growth Rate ²
Dwarf, Shining, Flameleaf, or Winged Sumac	Rhus copallinum	7-15	10-20	Jul-Aug	Greenish-yellow	Dry – medium	FS, PS	Moderate
Sweet Fern	Comptonia peregrina	2-5	4-8	Apr-May	Yellowish-green	Dry – medium	FS, PS	Moderate
Wax Myrtle	Myrica cerifera	10-20	8-10	Feb-Mar	Yellow-green	Medium – wet	FS, PS	Fast
Witch Hazel	Hamamelis virginiana	15-30	15-20	Oct-Dec	Yellow	Medium	PS, S	Moderate
Yucca	Yucca filamentosa	4-8	2-3	Jun-Jul	Creamy White	Dry – medium	FS	Moderate

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Flora of Delaware

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North Carolina Plant Toolbox Extension Gardener

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American Beautyberry - *Callicarpa americana*

Average Height: 3-6 feet

Average Width: 3-6 feet

Bloom Time: June - August

Bloom Color: Lavendar, pink, or white

Growth Rate: Fast

Deciduous or Evergreen: Deciduous

Other Seasonal Interest: Summer flowers, fall purple berries, red fall foliage

Associated Wildlife: Fruit for birds, deer, raccoons, squirrels (food); pollinator-friendly

Primary Pollinators: Bees, beetles, moths

Pollination Notes: Flowers are visually attractive but lack strong scent or nectar; pollination is mostly insect-driven

Fruit Characteristics: purple berries edible for humans (jelly), also used as mosquito repellent

Climate Range: USDA zones 6–12

Known Incompatibilities: Intolerant of deep shade

Growth and Survival Requirements

Moisture: Medium

Salt Tolerance: Low

Light: Full sun to part shade

Soil pH: 4.8–7.0

Nutrients: Adaptable; prefers loamy or sandy soils

Commercial Availability: Common in native plant nurseries

Interesting facts: Leaves used as mosquito repellent; berries edible and used in jelly



American Elderberry – *Sambucus canadensis*

Average Height: 5-12 feet

Average Width: 6-12 feet – often wider than tall

Bloom Time: June-July

Bloom Color: Creamy white

Growth Rate: Fast

Deciduous or Evergreen: Deciduous

Other Seasonal Interest: Summer flowers; fall purple/black berries; yellow fall foliage

Associated Wildlife: Fruit for deer, birds, mammals; nectar for bees and butterflies; nesting coverage; berries eaten by 48 species of birds

Fruit Characteristics: Purple-black drupes; edible when cooked; used in jelly and wine

Climate Range: USDA zones 4-9

Known Incompatibilities: Tidal zones; berries toxic if raw; can be weedy

Growth and Survival Requirements

Moisture: Medium to wet; need consistently moist, but not soggy, soil with a medium water use. Young plants require about 1–2 inches of water per week, while established plants can tolerate some drought but benefit from supplemental water during hot, dry periods, especially during flowering and fruiting seasons. Adding mulch and compost can help retain soil moisture

Salt Tolerance: low to moderate salt tolerance; it is not tolerant of long-term flooding by salt water but can tolerate moderate exposure to road salt and salt winds if protected by other vegetation

Light: Full sun to partial shade

Soil pH: Ideal soil pH is between 6.0-7.2, but will grow in a broader range

Nutrients: Prefers rich, moist soils; aim for soil with 2-3% organic matter; nitrogen is needed annually, with amounts varying by plant age and vigor, while phosphorus and potassium should be added based on soil test results. A soil test before planting is crucial for determining specific nutrient needs

Commercial Availability: Yes

Interesting facts: Supports stem-nesting bees; used in erosion control and rain gardens



American (Common) Persimmon – *Diospyros virginiana*

Average Height: 30-80 feet (rarely to 100+ feet)

Average Width: Trunk diameter, 16-24 inches; canopy, 20-35 feet (trees can be spaced 16-20 feet apart if pruned)

Bloom Time: May-June on new growth

Bloom Color: Creamy white to greenish-yellow

Growth Rate: Moderate

Deciduous or Evergreen: Deciduous

Other Seasonal Interest: Dark green, glossy, leathery foliage in growing season; coppery-red fall foliage; fruits (female trees only), 1-2" diameter, golden-orange when ripe, August-October

Associated Wildlife: Fruits, when ripe, are a food source for songbirds and mammals (e.g., squirrel, raccoon, opossum, fox, deer), along with humans; deer browse leaves and twigs; flowers attract butterflies, bees

Fruit Characteristics: Orange, sweet when ripe; astringent when green

Climate Range: USDA zones 4a-9b; frost hardy to frost tender

Known Incompatibilities: Graft-compatible with most, but not all, cultivars. Some cultivars (e.g., 'Prok') are self-fruiting, but with others, male and female trees must be planted in close proximity for fruiting to occur. Trees are brittle and susceptible to strong winds. Root suckers should be removed unless a naturalized effect is desired.

Growth and Survival Requirements

Moisture: Dry to medium; prefers well-drained, moist soil; needs ample water in growing season

Salt Tolerance: Low

Light: Favors full sun, will tolerate partial shade

Soil pH: Neutral (6.0-8.0)

Nutrients: Prefers sandy, well-drained soils; 1-2 cups of a balance fertilizer (10-10-10) application is recommended 3x/yearly (March, June, September) in first two years of age; thereafter, one application yearly, preferably in March or June

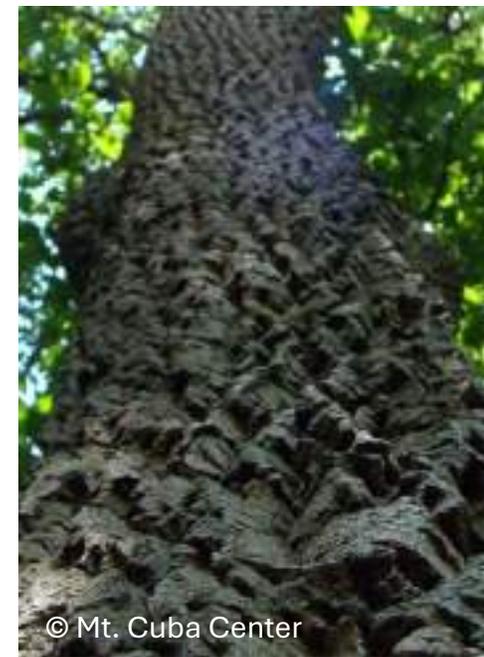
Commercial Availability: Less available than Asian counterparts, but may be obtained from orchards, specialized nurseries and wholesale suppliers

Interesting facts: Bark resembles alligator hide; fruit used in baking; "It is exceedingly common in the South Atlantic and Gulf States, often covering abandoned fields with a shrubby growth, and springing up by the sides of roads and fences. It is often the first tree species to start growth on abandoned and denuded cropland. It is well adapted to an environment of high insolation and low water supply."

(https://www.srs.fs.usda.gov/pubs/misc/ag_654/volume_2/diospyros/virginiana.htm)



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Arrowwood – *Viburnum dentatum*

Average Height: 6-10 feet

Average Width: 6-10 feet

Bloom Time: May - June

Bloom Color: Creamy white

Growth Rate: Moderate

Deciduous or Evergreen: Deciduous

Other Seasonal Interest: Spring flowers, fall fruit, variable fall foliage (yellow to red)

Associated Wildlife: Nectar for pollinators, berries for birds, squirrels, turkeys, shelter for small mammals

Primary Pollinators: Native bees, honeybees, butterflies, beetles, hummingbird

Pollination Notes: Flowers are perfect (contain both male and female parts), but cross-pollination improves fruit set

Fruit characteristics: Berries edible for birds, not toxic to humans

Climate Range: USDA zones 2-8

Known Incompatibilities: Susceptible to viburnum leaf beetle and whiteflies

Growth and Survival Requirements

Moisture: Medium; tolerates occasional drought or flooding

Salt Tolerance: Moderate (especially in coastal areas)

Light: Full sun to part shade

Soil pH: Slightly acidic to neutral (6.0–7.0)

Nutrients: Low; prefers moist loam

Commercial Availability: Widely available

Interesting Facts: Native Americans used stems for arrow shafts; tolerant of clay, compaction, and urban conditions



Black Gum / Black Tupelo – *Nyssa sylvatica*

Average Height: 30-50 feet; some species can reach 90 feet

Average Width: 20-35 feet

Bloom Time: May-June

Bloom Color: Small greenish white – not very showy

Growth Rate: Slow to moderate

Deciduous or Evergreen: Deciduous

Other Seasonal Interest: Brilliant red-orange fall foliage; blue-black fruit; shade, windbreaker, habitat for some months

Associated Wildlife: Various birds and mammals: robins, thrushes, woodpeckers, black bears, foxes, raccoons, and squirrels; bees (nectar)

Fruit Characteristics: Blue-black drupes; food for birds and mammals

Climate Range: Eastern North America and Mexico, USDA zones 4-9

Known Incompatibilities: Competes for water. Don't plant with maples, willows, or elms; Sensitive to compacted or alkaline soils

Growth and Survival Requirements

Moisture: Thrives in moist, well-drained soil. Can also tolerate poorly-drained soils, standing water.

First year they need regular deep watering to establish a strong root system

Salt Tolerance: Low to moderate; salt spray and salty wind

Light: Full sun to partial shade

Soil pH: Acidic – 5.5-6.5

Nutrients: Can survive in natural soil. Do not require much fertilization

Commercial Availability: Common; smaller specimens are found, due to long sensitive taproots

Interesting facts: Among the best native trees for fall color; deep taproot makes it wind-firm but hard to transplant



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Nyssa sylvatica Marsh. (tupelo), branches with leaves, fall color, © John Hagstrom

Dogwood – Osier Dogwood/Red Osier Dogwood - *Cornus sericea*

Average Height: 6-9 feet

Average Width: 6-10 feet

Bloom Time: May - June

Bloom Color: Creamy white

Growth Rate: Fast

Deciduous or Evergreen: Deciduous

Other Seasonal Interest: Spring: white, flat-topped flowers; summer: bluish-white berries; fall: red to purple foliage; winter: bright red stems

Associated Wildlife: Pollinators: bees, butterflies, moths; berries: feed over 90 bird species; small mammals use thickets for shelter; larval host for butterfly caterpillars

Fruit Characteristics: Bluish-white drupes, highly attractive to birds; non-toxic but not palatable to humans

Climate Range: USDA zones 3-7

Known Incompatibilities: Does not grow well in dry, sandy soil; susceptible to powdery mildew, leaf spot, canker, and twig blight in hot/humid climates

Growth and Survival Requirements

Moisture: Medium to wet; thrives in swampy, riparian, or rain garden settings; good for wetland restoration

Salt Tolerance: Moderate – tolerates some salt spray and brackish conditions; tolerates erosion-prone soils

Light: Full sun to part shade

Soil pH: Acidic to neutral (pH 5.5 – 7); tolerates clay and wet soils

Nutrients: Prefers organically rich, fertile soils (rich in leaf litter, compost, humus); tolerates poor conditions

Commercial Availability: Widely available; popular in restoration, hedging, and ornamental use

Interesting facts: Red stems are most vivid on young growth – prune in early spring to enhance color; spreads by underground stems – can form colonies and stabilize soil; formerly known as *Cornus stolonifera*



Dogwood - Silky Dogwood – *Cornus amomum*

Average Height: 6-12 feet

Average Width: 6-12 feet

Bloom Time: May - June

Bloom Color: Yellowish-white

Growth Rate: Moderate

Deciduous or Evergreen: Deciduous

Other Seasonal Interest: Spring flowers, late summer blue fruit, red stems in winter

Associated Wildlife: Fruit for birds (food); thickets provide shelter

Primary Pollinators: Sweat bees (*Agapostemon*), bumblebees (*Bombus*), butterflies, moths

Pollination Notes: Creamy white flowers attract a wide range of insects; also supports specialist bee species

Fruit Characteristics: Blue drupes, edible for wildlife, not for humans

Climate Range: USDA zones 5–8

Known Incompatibilities: Not drought-tolerant; susceptible to scale and leaf miners

Growth and Survival Requirements

Moisture: Medium to wet

Salt Tolerance: Low

Light: Full sun to part shade

Soil pH: Slightly acidic to neutral (5.5–7.0)

Nutrients: Prefers moist, organic-rich soils

Commercial Availability: Available, especially for restoration and erosion control

Interesting facts: Used in streambank stabilization; spreads by rooting stems



Chinquapin – *Castanea pumila*

Average Height: 10-30 feet

Average Width: Varies by form (shrub to small tree)

Bloom Time: June-July

Bloom Color: Creamy white

Growth Rate: Moderate

Deciduous or Evergreen: Deciduous

Other Seasonal Interest: Summer flowers, fall nuts

Associated Wildlife: Nuts for birds, squirrels

Fruit Characteristics: Single-seeded burs; edible nuts

Climate Range: USDA zones 5-9

Known Incompatibilities: Susceptible to chestnut blight

Growth and Survival Requirements

Moisture: Medium

Salt Tolerance: Low

Light: Full sun to part shade

Soil pH: Acidic to neutral

Nutrients: Prefers well-drained, sandy soils

Commercial Availability: Limited; often in native nurseries

Interesting facts: Nuts used by indigenous peoples; wood used for posts and ties



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Groundsel Bush - *Baccharis halimifolia*

Average Height: 5-12 feet

Average Width: 4-7 feet

Bloom Time: August-October

Bloom Color: Snowy white, cotton-like

Growth Rate: Fast

Deciduous or Evergreen: Semi-evergreen

Other Seasonal Interest: Both male and female flowers (white to green); fall flowers; silvery seedheads

Associated Wildlife: Nectar attracts butterflies including monarchs, moths, insects, and bees; seeds attract birds; nesting cover

Fruit Characteristics: Silvery-white pappus-topped seeds; wind dispersed

Climate Range: Eastern – southern coast; USDA zones 5-10

Known Incompatibilities: Seeds are toxic to humans and livestock; aggressive spread

Growth and Survival Requirements

Moisture: Medium to wet; found in wetlands plant/ found along shores, inland shores

Salt Tolerance: Salt tolerant (salt spray and brackish water)

Light: Full sun

Soil pH: Adaptable; tolerates acidic to neutral

Nutrients: Tolerates poor, rocky, clay soils

Commercial Availability: Yes, available for restoration

Interesting facts: Found in marshes, wetlands, open woods; found inland along highways where salt is used; heat and drought tolerant; dioecious; female plants are showier in fall; used in rain gardens and coastal buffers



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Hawthorn - *Crataegus*

Species Native to Delaware: Green hawthorn (*Crataegus viridis*), Scarlet hawthorn (*Crataegus coccinea*), Delaware hawthorn (*Crataegus delawarensis* – extremely rare or extinct). Detailed information for these three species follows.

Green Hawthorn – *Crataegus viridis*

Average Height: 20-35 feet

Average Width: 20-35 feet

Bloom Time: May

Bloom Color: White flowers in 2-inch corymbs

Growth Rate: Slow

Deciduous or Evergreen: Deciduous

Other Seasonal Interest: Slow growing, thorny branches; spring flowers, red fall fruit, purple to scarlet fall foliage, exfoliating bark

Associated Wildlife: Attracts birds (fruit), pollinators (nectar), deer and rabbits (for bark); thorns deter predators (hawks and coyotes); larval host for hairstreak butterflies

Fruit Characteristics: Small red pomes; edible but tart; persist into winter

Climate Range: USDA zones 4-9

Known Incompatibilities: Susceptible to cedar hawthorn rust, fireblight, mildew, scale; can be susceptible to diseases or insect infestation; fruit has been used for medicinal purposes; non-toxic

Growth and Survival Requirements

Moisture: Dry to medium; grows well in poor soil and poor drainage

Salt Tolerance: Moderate

Light: Full sun

Soil pH: Acidic to alkaline

Nutrients: Any soil type; prefers well-drained loam; tolerates clay and drought

Commercial Availability: Widely available; “Winter King” cultivar is popular

Interesting facts: One of the most disease-resistant hawthorns; bark reveals orange inner layers



Scarlet Hawthorn – *Crataegus coccinea*

Average Height: 20-25 feet

Average Width: 20-25 feet

Bloom Time: May

Bloom Color: Creamy white flowers in corymbs

Growth Rate: Moderate

Deciduous or Evergreen: Deciduous

Other Seasonal Interest: Spring flowers, scarlet fruit, orange to purple-red fall foliage; slow growing, thorny branches

Associated Wildlife: Attracts birds and mammals (fruit); bees and butterflies (nectar), deer and rabbits (for bark); thorns deter predators (hawks and coyotes)

Fruit Characteristics: Bright red pomes; edible after cooking; seeds contain cyanogenic glycosides

Climate Range: USDA zones 4-7

Known Incompatibilities: Susceptible to rust, fire blight, mildew, and insect pests

Growth and Survival Requirements

Moisture: Medium; grows well in poor soil and poor drainage

Salt Tolerance: Low

Light: Full sun

Soil pH: Slightly acidic to neutral

Nutrients: Any soil type but prefers loamy, well-drained soils

Commercial Availability: Available; used ornamentally

Interesting facts: Historically used in herbal medicine for cardiovascular health



Delaware Hawthorn – *Crataegus delawarensis*

Average Height: up to 30 feet

Average Width: Shrub-like form

Bloom Time: April

Bloom Color: White flowers with whitish anthers

Growth Rate: Unknown, possibly moderate

Deciduous or Evergreen: Deciduous

Other Seasonal Interest: Red fruit in fall; narrow ovate leaves

Associated Wildlife: Presumed similar to other hawthorns – birds (fruit), pollinators (nectar)

Fruit Characteristics: Subglobose red fruit; presumed edible but not well documented

Climate Range: Native to Delaware, possibly extinct

Known Incompatibilities: Limited range; hybrid origin; no horticultural data available

Growth and Survival Requirements

Moisture: Unknown, likely medium

Salt Tolerance: Unknown

Light: Likely full sun

Soil pH: Unknown

Nutrients: Unknown

Commercial Availability: Not commercially available

Interesting facts: Endemic to Delaware; last seen in 1903; believed to be a hybrid of *C. pruinosa* and *C. populnea*

Maple - Red Maple – *Acer rubrum*

Average Height: 40-70 feet

Average Width: 30-50 feet

Bloom Time: March - April

Bloom Color: Red or yellow

Growth Rate: Fast

Deciduous or Evergreen: Deciduous

Other Seasonal Interest: Early Spring flowers, brilliant Fall color

Associated Wildlife: Seeds and buds for birds and mammals (food); nesting cavities for birds

Fruit Characteristics: Samaras (winged seeds), not edible

Climate Range: USDA zones 3–9

Known Incompatibilities: Shallow roots may damage sidewalks; susceptible to chlorosis in alkaline soils

Growth and Survival Requirements

Moisture: Medium to wet

Salt Tolerance: Moderate

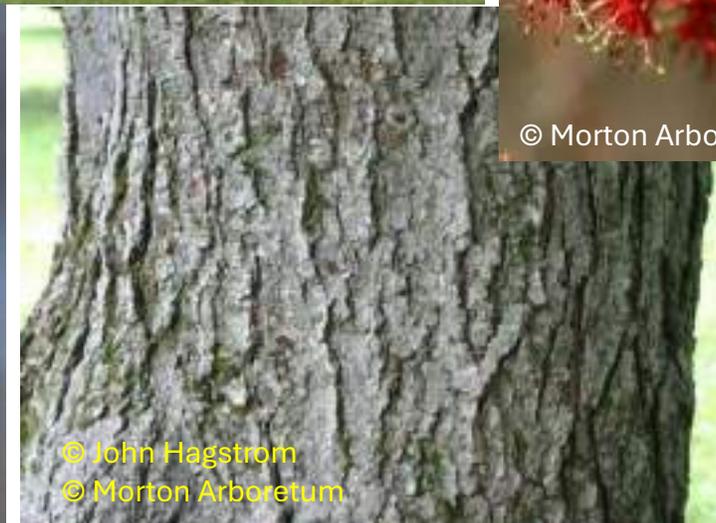
Light: Full sun to part shade

Soil pH: Slightly acidic preferred

Nutrients: Adaptable; prefers moist loam

Commercial Availability: Widely available

Interesting Facts: One of the most widespread trees in the U.S.; used for syrup and timber



Nannyberry – *Viburnum lentago*

Average Height: 15-18 feet

Average Width: 8-12 feet

Bloom Time: May

Bloom Color: Creamy white

Growth Rate: Moderate

Deciduous or Evergreen: Deciduous

Other Seasonal Interest: Spring flowers, fall fruit, orange to purple fall foliage

Associated Wildlife: Fruit for birds and mammals (food); shelter for pollinators

Primary Pollinators: Honeybees, sweat bees, yellow-faced bees, miner bees, masked bees, Syrphid flies, dance flies, muscid flies, longhorn beetles, fire-colored beetles, false flower beetles, carrion beetles

Pollination Notes: Larval host for the Spring Azure butterfly; flowers are visited for pollen more than nectar

Fruit Characteristics: sweet edible berries, used in jams

Climate Range: USDA zones 2–8

Known Incompatibilities: Susceptible to mildew in shade

Growth and Survival Requirements

Moisture: Medium

Salt Tolerance: Low

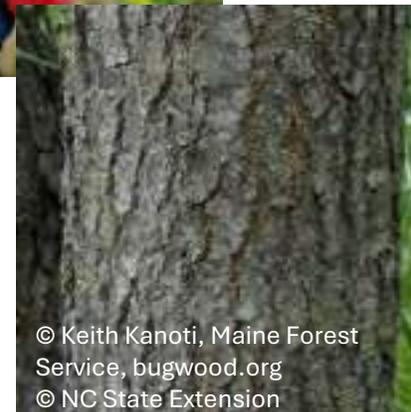
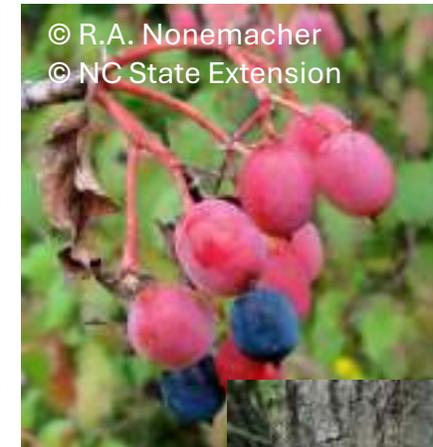
Light: Full sun to part shade

Soil pH: Neutral (6.0–8.0)

Nutrients: Prefers moist, loamy soils

Commercial Availability: Available in native plant nurseries

Interesting facts: Fruits edible; used in jams; larval host for Spring Azure butterfly



Oak - Chinquapin Oak (Yellow Chestnut Oak, Rock Oak, Yellow Oak) – *Quercus muehlenbergii*

Average Height: 40-60 feet but can grow to 90-120 feet

Average Width: 50-70 feet

Bloom Time: Spring – April through May or early June

Bloom Color: Male: Long, yellowish catkins; female: reddish greenish at tips of twigs

Growth Rate: Moderate

Deciduous or Evergreen: Deciduous

Other Seasonal Interest: Yellow-brown fall color, sweet, small edible acorns, attractive flaky bark texture in winter

Associated Wildlife: Deer, squirrels, chipmunks, mice, voles, rabbits, fox, birds (woodpeckers, jays, grouse, wood ducks, nuthatches, songbirds) many insects that provide food for nesting; larval host for butterflies

Fruit Characteristics: Small acorns, edible and sweet

Climate Range: USDA zones 5-7

Known Incompatibilities: Poorly drained, acidic soil and heavy shade; better in upland environments; susceptible to oak wilt and blight

Growth and Survival Requirements

Moisture: Dry to medium; drought tolerant once established. Has deep taproot, but likes fairly moist soil to establish

Salt Tolerance: Low

Light: Full sun, or at least 6 hours of direct sunlight per day

Soil pH: High alkaline, though also thrives in neutral and mildly acidic areas

Nutrients: Similar to other oaks, also often found on limestone outcrops and calcium-rich soils

Commercial Availability: Seems to be available online in 1-2" seedlings or larger, 15-gallon stock

Interesting facts: Acorns resemble chestnuts; bark is like white oak



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Oak - Northern Red Oak - *Quercus rubra*

Average Height: 50-75 feet

Average Width: 50-75 feet

Bloom Time: May

Bloom Color: Yellowish-green

Growth Rate: Moderate to fast

Deciduous or Evergreen: Deciduous

Other Seasonal Interest: Fall foliage (brick red), acorns

Associated Wildlife: Acorns for birds and mammals (food); nesting sites (shelter)

Fruit Characteristics: Acorns, edible after leaching tannins; food for wildlife

Climate Range: USDA zones 4–8

Known incompatibilities: Susceptible to oak wilt and chlorosis in non-acidic soils

Growth and Survival Requirements

Moisture: Dry to medium

Salt Tolerance: Low

Light: Full sun

Soil pH: Acidic

Nutrients: Prefers fertile, sandy loam

Commercial Availability: Widely available

Interesting facts: Important timber tree; host for many butterfly larvae



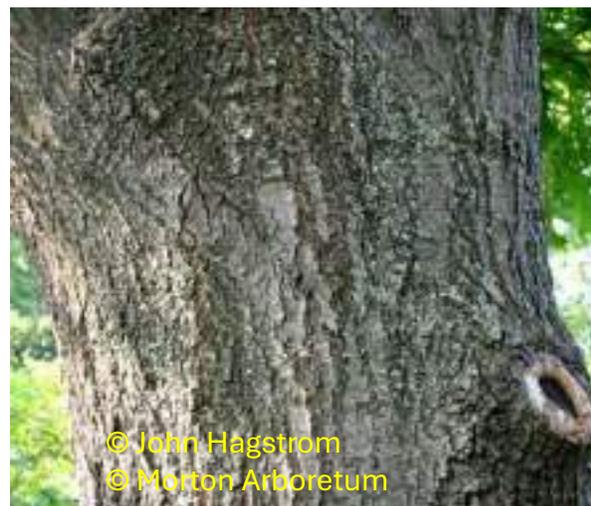
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Oak - White Oak - *Quercus alba*

Average Height: 50-80 feet; can reach 135 feet in ideal conditions

Average Width: 50-80 feet

Bloom Time: May

Bloom Color: Male – yellow-green, slender catkins; female, small, reddish-green spikes

Growth Rate: Slow to moderate

Deciduous or Evergreen: Deciduous

Other Seasonal Interest: Leaves turn to shades of red to purple in fall; acorns

Associated Wildlife: More than 180 kinds of birds and mammals use oak acorns as food, including squirrels, bluejays, crows, red-headed woodpeckers, wild turkey, deer, chipmunks; supports 500+ species of Lepidoptera

Fruit Characteristics: Oval acorns; sweet; edible after leaching

Climate Range: USDA Zones 3-9; Maine to Michigan and Minnesota, south to northern Florida and eastern Texas. Can tolerate mean annual temperature ranges from 45°F to 70°F, and survives in areas with cold dips as low as -50°F

Known Incompatibilities: May not do well in very sandy soil with moisture limitations. Does not do well in extremely dry, shallow-soiled areas, poorly drained flats, and wet bottom land; sensitive to compacted or alkaline soils

Growth and Survival Requirements

Moisture: Dry to medium

Salt Tolerance: Moderate

Light: Full sun

Soil pH: slightly acidic to neutral – 5.5-6.5

Nutrients: Prefers deep, well-drained loam; fertilizer typically only needed for younger trees – balanced fertilizer containing nitrogen, phosphorous, and potassium

Commercial Availability: Currently high availability in US but may decline with lack of new seedlings and regeneration

Interesting facts: State tree of Illinois; prized for durable wood



Oak - Willow Oak - *Quercus phellos*

Average Height: 40-75 feet

Average Width: 25-50 feet

Bloom Time: March-April

Bloom Color: Yellow/Green

Growth Rate: Fast

Deciduous or Evergreen: Deciduous

Other Seasonal Interest: Yellow-brown fall foliage; small acorns

Associated Wildlife: Acorns feed squirrels, ducks, turkey deer, raccoons, birds.

Leaves and leaf litter house for 500 butterflies and moths; larval host for hairstreaks and duskywings

Fruit Characteristics: Small rounded acorns; food for wildlife

Climate Range: USDA Zones 5-9

Known Incompatibilities: Susceptible to chlorosis in high pH soils

Growth and Survival Requirements

Moisture: Medium to wet

Salt Tolerance: Moderate

Light: Full sun

Soil pH: Acidic

Nutrients: Prefers moist, loamy soils

Commercial Availability: Common

Interesting facts: Popular urban tree; fine-textured foliage resembles willow leaves



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Eastern Prickly Pear – *Opuntia humifusa*

Average Height: 6-14 inches

Average Width: 1-1.5 feet (spreads into colonies)

Bloom Time: June through July

Bloom Color: Yellow, sometimes with a red center

Growth Rate: Moderate

Deciduous or Evergreen: Technically evergreen, but pads shrivel in winter

Other Seasonal Interest:

Early Summer: Showy yellow flowers

Late Summer/Fall: Red fruits

Winter Appeal: Pads lie low and shrivel (desert survival strategy)

Associated Wildlife:

Pollinators: Bees and other insects

Food: Fruits eaten by wildlife

Shelter: Pads provide shelter for small animals

Fruit Characteristics: Pulpy red fruits (2") edible, used for jelly or candy; pads edible when roasted (indigenous use)

Climate Range: USDA Hardiness Zones: 4 to 9

Known Incompatibilities: Rot in poorly drained soils; glochids (tiny barbed hairs) cause skin irritation

Growth and Survival Requirements

Moisture: Dry; drought tolerant

Salt Tolerance: Moderate

Light: Full sun

Soil pH: Adaptable; thrives in sandy or rocky soils

Nutrients: Very low nutrient needs; thrives in nutrient-poor sites

Commercial Availability: Available in native nurseries and xeric plant suppliers

Interesting facts: Cold-hardy native cactus – one of the only cacti native to the eastern U.S.; pads root easily when broken off, forming colonies; used in traditional medicine across multiple cultures



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Pine - Loblolly Pine - *Pinus taeda*

Average Height: 60-90 feet

Average Width: 20-40 feet

Bloom Time: Spring; no flowers

Bloom Color: Red/yellow male cones, yellow/purple female cones

Growth Rate: Very fast

Deciduous or Evergreen: Evergreen; Needles are twisted, 6-9 inches long, and are in bundles of 3

Other Seasonal Interest: Year-round foliage; persistent cones

Associated Wildlife: Seeds for birds and squirrels (food); nesting sites for bald eagles and woodpeckers

Seed Characteristics: cones with seeds for wildlife; not typically used medicinally; male strobili are 1-1.5 inches long and form in late July, are clustered, and appear on tips of branches; female cones are found on new growth on different branches from the male cones, 3-6 inches long and mature about 2 years later. Cones are reddish-brown and have scales with sharp edges that grow in pairs

Climate Range: USDA zones 6-9

Known Incompatibilities: Susceptible to fusiform rust and beetles; not cold-hardy in northern zones

Growth and Survival Requirements

Moisture: Medium to wet

Salt Tolerance: Low

Light: Full sun

Soil pH: Acidic

Nutrients: Prefers moist, poorly drained soils

Commercial Availability: Widely used in forestry

Interesting facts: Fastest-growing yellow pine native to Southeastern US. One of the “moon trees” taken aboard Apollo 14; used in pulp and construction and plays a significant role in Delaware’s timber industry



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Pine - Eastern White Pine - *Pinus strobus*

Average Height: 50-80 feet

Average Width: 20-40 feet

Bloom Time: Non-flowering

Bloom Color: Non-flowering

Growth Rate: Fast

Deciduous or Evergreen: Evergreen; fine feathery bluish-green needles in bundles of 5, 2-5 inches long

Other Seasonal Interest: Year-round foliage; cones

Associated Wildlife: Seeds for birds and mammals (food); nesting cover (shelter)

Fruit Characteristics: Cones with edible seeds; needles used medicinally (tea)

Climate Range: USDA zones 3-8

Known Incompatibilities: Sensitive to air pollution and alkaline soils

Growth and Survival Requirements

Moisture: Medium

Salt Tolerance: Low

Light: Full sun to part shade

Soil pH: Acidic

Nutrients: Prefers well-drained, fertile soils

Commercial Availability: Common

Interesting facts: State tree of Maine and Michigan; used for timber and Christmas trees



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Sumac - *Rhus*

Sumacs are shrubs or small trees that can grow from 3' to 30'. Their leaves are usually pinnately compound. The flowers are in dense panicles or spikes. The fruits are reddish, thin fleshed drupes. Sumac propagate both by seeds dispersal and new shoots from rhizomes forming clonal colonies.

There are three species found in the mid-Atlantic area. Information is on the following slides.

Sumac - Smooth Sumac - *Rhus glabra*

Average Height: 9-15 feet

Average Width: 9-15 feet

Bloom Time: June-July

Bloom Color: Greenish-yellow

Growth Rate: Moderate

Deciduous or Evergreen: Deciduous

Other Seasonal Interest: Brilliant red fall foliage; persistent red fruit clusters

Associated Wildlife: Pollinators: bees, butterflies (e.g., red-banded hairstreak); food: Fruit for songbirds, wild turkey, quail, deer, rabbits; shelter: dense colonies offer cover for small mammals

Fruit Characteristics: Red hairy drupes in dense clusters; edible for wildlife, tart flavor use in drinks

Climate Range: USDA Zones 3-9

Known Incompatibilities: Can be weedy/aggressive; spreads via root suckers

Growth and Survival Requirements

Moisture: Dry to medium

Salt Tolerance: Moderate

Light: Full sun to part shade

Soil pH: Acidic to neutral

Nutrients: Adaptable; tolerates poor rocky soils

Commercial Availability: Available; used in restoration

Interesting facts: Fire and animal digestion improve seed germination; used for erosion control and dye production



Sumac - Staghorn Sumac - *Rhus typhina*

Average Height: 15-25 feet

Average Width: 15-25 feet

Bloom Time: June-July

Bloom Color: Greenish-yellow

Growth Rate: Fast

Deciduous or Evergreen: Deciduous

Other Seasonal Interest: leaves turn to shades of red or brown in fall

Associated Wildlife: More than 180 kinds of birds and mammals use oak acorns as food, including squirrels, bluejays, crows, red-headed woodpeckers, wild turkey, deer, chipmunks

Fruit Characteristics: Hairy red drupes; tart, used in drinks

Climate Range: USDA Zones 3-8

Known Incompatibilities: Can be aggressive via suckers

Growth and Survival Requirements

Moisture: Dry to medium

Salt Tolerance: Moderate

Light: Full sun to part shade

Soil pH: Acidic to neutral

Nutrients: Adaptable; tolerates poor soils

Commercial Availability: Available; used in restoration

Interesting facts: Fire and animal digestion improve seed germination



Sumac - Dwarf, Shining, Flameleaf, or Winged Sumac - *Rhus copallinum*

Average Height: 7-15 feet

Average Width: 10-20 feet

Bloom Time: July-August

Bloom Color: Greenish-yellow

Growth Rate: Moderate

Deciduous or Evergreen: Deciduous

Other Seasonal Interest: Flame-red fall foliage; persistent red fruit clusters

Associated Wildlife: Pollinators: bees, butterflies; food: fruit for birds, deer, small mammals; shelter: thickets provide cover

Fruit Characteristics: Red hairy drupes; persist into winter; edible for wildlife

Climate Range: USDA Zones 4-9

Known Incompatibilities: Aggressive spread via root suckers; not suited for formal landscapes

Growth and Survival Requirements

Moisture: Dry to medium

Salt Tolerance: Moderate

Light: Full sun to part shade

Soil pH: Acidic to neutral

Nutrients: Adaptable; tolerates poor rocky soils

Commercial Availability: Available for naturalized plantings

Interesting facts: Named for winged leaf midribs; used in erosion control and naturalized areas



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Sweet Fern – *Comptonia peregrina*

Average Height: 2-5 feet

Average Width: 4-8 feet

Bloom Time: April through May

Bloom Color: insignificant yellowish-green flowers

Growth Rate: Moderate (spreads by rhizomes)

Deciduous or Evergreen: Deciduous

Other Seasonal Interest:

Aromatic, fern-like foliage

Burr-like nutlets in late summer/fall

Associated Wildlife:

Pollinators: Butterflies and other insects are attracted to foliage and flowers

Larval host: Several moth species including lo moth and case-bearers

Fruit Characteristics: Greenish-brown burr-like nutlets containing edible seeds

Climate Range: USDA Hardiness Zones 2-6

Known Incompatibilities: Does NOT transplant well; prefers acidic soils; struggles in alkaline conditions

Growth and Survival Requirements

Moisture: Dry to medium; tolerates drought and wet soils

Salt Tolerance: Tolerates wind and some salt exposure

Light: Full sun to part shade

Soil pH: Acidic preferred

Nutrients: Very low – fixes nitrogen and thrives in poor soils

Commercial Availability: Available in native plant nurseries

Interesting facts: Leaves were used historically for tea and seasoning; excellent for slope stabilization and erosion control



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Wax Myrtle (Bayberry) - *Myrica cerifera*

Average Height: 10-20 feet; can grow up to 40 feet

Average Width: 8-10 feet

Bloom Time: February-March

Bloom Color: Yellow-green flowers

Growth Rate: Fast

Deciduous or Evergreen: Evergreen; semi-evergreen in colder zones

Other Seasonal Interest: Aromatic foliage; persistent blue-gray berries in late summer; repels mosquitoes due to its strong scent which is released when the leaves are crushed and rubbed on the skin; branches can be put in the home or patio area to deter insects

Associated Wildlife: Attracts many species of birds; birds eat the berries; good for nesting cover; host plant for red-banded hairstreak butterfly which uses the plant's fallen leaves for its larvae to feed on and develop; nectar for pollinators

Fruit Characteristics: Waxy berries used in candle-making; aromatic

Climate Range: USDA Zones 7-11

Known Incompatibilities: Deer and rabbit resistant; flammable oils; leaf browning in cold winters

Growth and Survival Requirements

Moisture: Medium to wet; flexible requirements-young plants need consistently moist soil while established plants are very drought and flood tolerant; once established, they tolerate a wide range of conditions from wet to dry soil and only need deep watering during extended droughts

Salt Tolerance: High salt tolerance making it an exceptional choice for coastal plantings and areas with salt spray. Thrives in seaside conditions and can also tolerate high winds and urban environments with road salt.

Light: Full to partial sun

Soil pH: Acidic to neutral - 6.0-8.0 soil pH; prefers slightly acidic, well-draining soil but is adaptable to various conditions including wet, loamy and clay soils

Nutrients: Benefits from a slow-release shrub and tree food in the spring; wax myrtle is considered a nitrogen fixer that puts nitrogen back in the soil; improves soil quality and nearby plants

Commercial Availability: Can be purchased online and at local garden centers

Interesting facts: Used for erosion control, privacy screens, and bayberry candles



Witch Hazel – *Hamamelis virginiana*

Average Height: 15-30 feet

Average Width: 15-20 feet

Bloom Time: Late October through December

Bloom Color: The flowers are fragrant and ribbon-like, typically bright yellow, though some native and hybrid varieties may show orange or coppery tones depending on cultivar and soil conditions

Growth Rate: Moderate

Deciduous or Evergreen: Deciduous

Other Seasonal Interest:

Fall Foliage: Leaves turn golden yellow in autumn before dropping, adding another layer of seasonal color; late fall flowers

Winter Appeal: The twisted, spidery flowers bloom on bare branches, providing visual interest and nectar for late-season pollinators

Associated Wildlife: Wildlife Value: The shrub offers shelter for birds and small wildlife, and its seed pods provide minor food sources

Pollinators: Late-season moths, flies, and native bees (especially *Apis mellifera* and *Bombus* species) are drawn to its cold-tolerant flowers

Birds and Mammals: Songbirds and small mammals occasionally feed on its tiny seeds and use its dense structure for shelter and nesting

Deer Resistance: Witch hazel is moderately deer-resistant, though young shoots may be browsed in high-pressure areas

Fruit Characteristics: Woody capsule; seeds ejected explosively

Climate Range: Eastern North America, from Nova Scotia to Florida and west to Texas and Minnesota. USDA Hardiness Zones: 3 to 8, thriving in Delaware's Zone 7 coastal climate.

Known Incompatibilities: Poorly drained or alkaline soils—extended wet or compacted conditions can cause root rot and nutrient stress; excessive heat or drought—while adaptable, long droughts or reflected heat (such as near pavement) can cause leaf scorch; heavy competition—struggles under dense canopy shade or where aggressive root systems (like maples) dominate; not salt-tolerant—s : Sensitive to salt spray or saline soils, limiting its success near coastal roads or dunes.

Growth and Survival Requirements

Moisture: Medium; prefers moist, well-drained soil

Salt Tolerance: Low; sensitive to salt spray and saline soils. Avoid planting near roads treated with deicing salt or coastal dune environments

Light: Grows best in partial shade to shade

Soil pH: Thrives in slightly acidic to neutral soils (pH 5.0–7.0); growth can be stunted in alkaline conditions.

Nutrients: Prefers rich, well-drained soils; adaptable to moderately fertile soils; benefits from organic matter but does not require high nutrient input; excess fertilization can reduce flowering and weaken stems.

Commercial Availability: Widely available in the Mid-Atlantic nursery trade as both container-grown and balled-and-burlapped stock. Several native cultivars and hybrids are produced commercially for ornamental, ecological restoration, and landscape uses. Commonly sourced through regional native plant nurseries and wholesale growers specializing in woodland or pollinator-supportive species.

Interesting facts: Low Maintenance & Native Adaptation: As a native species, witch hazel is adapted to Delaware's soils and climate, thriving in moist, well-drained sites with partial to full sun; used in skincare products; blooms after leaf drop



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Yucca (Adam's Needle) – *Yucca filamentosa*

Average Height: 4-8 feet (foliage 2-3 ft; flower stalk up to 8 ft)

Average Width: 2-3 feet

Bloom Time: June through July

Bloom Color: Creamy white

Growth Rate: Moderate

Deciduous or Evergreen: Evergreen

Other Seasonal Interest:

Summer: Showy flower spikes

Winter Appeal: Evergreen sword-like foliage; architectural winter form

Associated Wildlife:

Pollinators: Yucca moth (*Tegeticula yuccasella*) – obligate mutualism

Butterflies: Attracts butterflies generally

Fruit Characteristics: Elliptical capsules; seeds edible when cooked

Climate Range: USDA Hardiness Zones: 5 to 10

Known Incompatibilities: Difficult to remove once established (deep tap root); can spread aggressively via offsets

Growth and Survival Requirements

Moisture: Dry to medium

Salt Tolerance: High – tolerates salt spray and road salt

Light: Full sun (tolerates some shade)

Soil pH: 5.5 – 7.5 (acidic to slightly alkaline)

Nutrients: Low needs; thrives in poor, sandy soils

Commercial Availability: Widely available, many cultivars

Interesting facts: Leaves, stems, and roots were used historically to stun fish (Cherokee); flower petals are edible; fruits are edible when cooked



Reference Materials

[Arbor Day Foundation](#)

[bplant](#)

[The Delaware Wetland Plant Field Guide](#)

[The Flora of Delaware Online Database](#)

[The Flora of Virginia](#) – This is nice because it's an app for your phone

[iNaturalist](#)

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[North Carolina Botanical Garden – Flora of the Southeastern United States Database](#)

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[Plants for a Livable Delaware](#)