

# Tree Identification Guide



## Species: *Acer campestre*

(ay'ser kam-pess'tree)

### Hedge Maple

#### Cultivar Information

\* See specific cultivar notes on next page.

#### Ornamental Characteristics

Size: Tree < 30 feet

Height: 25' - 35'

Leaves: Deciduous

Shape: round

Ornamental Other:

#### Environmental Characteristics

Light: Full sun

Hardy To Zone: 5a

Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)

Environmental Other: Known to naturalize or become invasive in some areas

CU Structural Soil™: Yes

#### Insect Disease

Relatively pest free

#### Bare Root Transplanting

Easy

#### Other

Native to Europe, Middle East and North Africa.

## Cultivars for *Acer campestre*

Showing **1-17** of **17** items.

Cultivar Name	Notes
Carnival	'Carnival' - variegated foliage
Elegant	'Elegant' - compact, ascending habit; vigorous uniform growth
Elsrijk	'Elsrijk' - narrow crown, mildew-resistant
Evenley Red	'Evenley Red' - superior red fall color
Field Maple	'Field Maple' - more uniform habit than species
Jade Patina	'Jade Patina' - dark green leaves, more deeply indented than species; exceptional cold tolerance, not affected by frost cracking
Louisa Red Shine	'Louisa Red Shine' - leaves emerge red and fade to reddish-green
Metro Gold	'Metro Gold' (a.k.a. Panacek) - superior gold fall foliage; upright, narrow form; tighter shape than 'Queen Elizabeth'
Queen Elizabeth	'Queen Elizabeth' - more upright, vigorous, Japanese beetle resistant [zone 6b - 7b]
Nanum	'Nanum' (a.k.a. Compactum) - semi-dwarf, dense compact, bulbous habit; often grafted on a standard trunk
Postelense	'Postelense' - foliage emerges yellow and matures to green
Pulverentum	'Pulverentum' - variegated foliage
Royal Ruby	'Royal Ruby' - new foliage is purplish-red
Schichtel's Upright	'Schichtel's Upright' - upright habit
Schwerinii	new purple foliage that turns green
St. Gregory	vigorous; pyramidal growth with strong central leader; new foliage reddish-green that turns to a rich dark green
William Caldwell	fastigate shape, foliage turns orange / red in autumn where planted on acid soils, not yellow as with species

## Photos



*Acer campestre* - Habit, Fall Interest



*Acer campestre* - Leaves



Acer campestre - Leaves



Acer campestre - Habit



Acer campestre - Habit



Acer campestre - Habit



Acer campestre - Fruit



*Acer campestre* - Leaves



*Acer campestre* - Buds



## Species: *Acer negundo*

(ă 'sēr ne-goon 'dō)

### Boxelder

#### Cultivar Information

\* See specific cultivar notes on next page.

#### Ornamental Characteristics

Size: Tree > 30 feet

Height: 30'-50'

Leaves: Deciduous

Shape: oval, irregular

Ornamental Other:

#### Environmental Characteristics

Light: Full sun, Part shade

Hardy To Zone: 3a

Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)

#### Insect Disease

Box elder bugs

#### Bare Root Transplanting

Any

#### Other

seeds prolifically, weedy, weak-wooded; Native to US, Canada and northern Mexico

## Cultivars for *Acer negundo*

Showing **1-6** of **6** items.

Cultivar Name	Notes
Auratum	'Auratum' - intense yellow foliage; color may fade in areas with hot, humid summers
Flamingo	'Flamingo' variegated pink, white and green, Small stature to 15'
Kelly's Gold	'Kelly's Gold' - new golden-yellow leaves mature to chartreuse
Variegatum	'Variegatum' - female clone; foliage with a broad, white margin; fruits also variegated
Violaceum	'Violaceum' - glaucous waxy coating on the young deep purple shoots; otherwise similar to the species; annual cut-back in spring will encourage new growth; stem color most striking in winter
Sensation	'Sensation' - Soft coppery-red foliage in spring, matures to green with a hint of copper beneath; red fall foliage uncharacteristic of species; resistant to box elder bugs, more mannerly growth habit; improved branch structure; less susceptible to storm damage than the species

## Photos



Acer negundo - Habit, Fungus



Acer negundo - Bark



Acer negundo - Habit



Acer negundo - Leaves



Acer negundo 'Variegatum' - Leaves



Acer negundo - Stems



Acer negundo - Seeds



Acer negundo - Bark



Acer negundo - Buds



## Species: *Acer platanoides*

(ay'ser plat-an-oy'deez)

### Norway Maple

#### Cultivar Information

There are many cultivars available for this species. Some are broad and spreading. Others are oval.

\* See specific cultivar notes on next page.

#### Ornamental Characteristics

Size: Tree > 30 feet

Height: 40' - 50'

Leaves: Deciduous

Shape: Oval to Round

Ornamental Other:

#### Environmental Characteristics

Light: Full sun, Part shade

Hardy To Zone: 4a

Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)

Environmental Other: Known to naturalize or become invasive throughout most of the northern U.S.

CU Structural Soil™: Yes

#### Insect Disease

Variety Parkway tolerant of verticillium wilt; Variety Summershade tolerant of leaf hoppers

#### Bare Root Transplanting

Easy

## Other

native to Europe; easy to transplant in spring or fall. INVASIVE in US

## Cultivars for *Acer platanoides*

Showing **1-14** of **14** items.

Cultivar Name	Notes
Crimson King	'Crimson King' - Leaves emerge bright crimson and deepen to maroon which persists throughout the growing season; slower growing than the species
Deborah	'Deborah' - oval-rounded habit; leaves emerge bright red and change over a 4-6 week period to deep maroon and finally dark green; leaves are wrinkled with crinkled and undulating margins; fall color is yellow-orange atypical of the species and most other cultivars
Drummondii	'Drummondii' - foliage light green with with a prominent white edge;slow growing; frequently reverts and green sections must be removed or they will overgrow variegated sections because of their greater vigor
Emerald Queen	'Emerald Queen' - golden fall color
Globosum	'Globosum' - dwarf form to 18'tall; compact, rounded, dense canopy; typically grafted at around 6 feet
Princeton Gold	'Princeton Gold' leaves emerge chartreuse and fade to a still noticeable yellow-green; oval crown; 35 feet tall and 30 feet wide at maturity; leaf scorch can be a problem if tree is exposed to hot, late-afternoon sun; slow growth rate
Royal Red	'Royal Red' - similar to 'Crimson King', but with a somewhat slower growth rate; slightly better color than 'Crimson King'; less prone to frost cracks
Summershade	'Summershade' - zone 4b; heavy, leathery foliage; very heat tolerant
Superform	'Superform' - very symmetrical
Cleveland	'Cleveland' - narrow, oval form ; excellent golden-yellow fall color
Columnare	'Columnare' - narrower than 'Cleveland'
Parkway	'Parkway' - oval
Crimson Sentry	'Crimson Sentry' - burgundy to purple leaf color; compact, dense, broadly columnar; more mildew resistant than 'Crimson King'
Olmsted	'Olmsted' - wide columnar, maturing to wide oval; juvenile foliage unfurls bronze

## Photos



Acer platanoides - Flowers



Acer platanoides - Leaf



Acer platanoides - Habit



Acer platanoides - Leaf



Acer platanoides 'Crimson King' - Habit



Acer platanoides - Bark



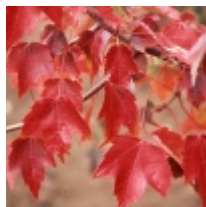
Acer platanoides - Bark



Acer platanoides - Flowers



*Acer platanoides* 'Schwedleri' - Leaves, Fall Interest



## Species: *Acer rubrum*

(ay'ser rue'brum)

Red Maple; Scarlet Maple; Swamp Maple

### Cultivar Information

\* See specific cultivar notes on next page.

### Ornamental Characteristics

Size: Tree > 30 feet

Height: 40' - 60'

Leaves: Deciduous

Shape: Shape varies widely by variety. Generally upright with a rounded crown, however many columnar varieties exist.

Ornamental Other:

### Environmental Characteristics

Light: Full sun

Hardy To Zone: 3b

Soil Ph: Can tolerate acid to neutral soil (pH 5.0 to 7.4)

### Insect Disease

verticillium wilt can be a problem

### Bare Root Transplanting

Easy

### Other

Native to North America (Newfoundland to Minnesota, south to Florida and Texas). Best transplanted in spring. Often seen as a wet site tolerant tree, however upland genotypes exist. Wetland genotypes are more commonly selected from in the trade as they tend to be more

vigorous. Upland genotypes are more drought tolerant but tend to be slow-growing.

## Cultivars for *Acer rubrum*

Showing **1-12** of **12** items.

Cultivar Name	Notes
Autumn Flame	'Autumn Flame' - early, persistent red fall color, zone 3b
Brandywine	'Brandywine' - red to red-purple fall color; foliage stays on tree for up to 14 days after fall color change
Northwood	'Northwood' - good orange-red fall color, zone 3b
October Glory	'October Glory' - excellent red fall color, zone 5a
Red Skin	'Red Skin' - large, thick foliage, early reddish maroon fall color, zone 4
Red Sunset	'Red Sunset' (a.k.a. Franksred)- excellent orange to red fall color, zone 4
Bowhall	'Bowhall' - orange fall color
Karpick	'Karpick' - dense, red twigs, yellow or red fall color
Armstrong	'Armstrong' - fast-growing; yellow, orange, red fall color
Armstrong Gold	'Armstrong Gold' - selected from seedlings of 'Armstrong', improves greatly on the parent; grows to 40' tall x 12' wide; narrow, tightly fastigiate form; brighter foliage color; greater foliage density and compact; less leggy growth habit
Redpointe	'Redpointe' (a.k.a. Frank Jr.) - grows to 45' high x 30' wide; broadly pyramidal form; brilliant red fall color; faster growth rate; straight and dominant central leader. Purportedly more tolerant of alkaline soils
Scarlet Sentinel	'Scarlet Sentinel' - grow to 40' tall x 20' wide; upright, narrow habit; oval to rectangular form; yellow-orange to orange-red fall color; very summer heat tolerant

## Photos



*Acer rubrum* chlorotic foliage



*Acer rubrum* - Bark



Acer rubrum - Buds



Acer rubrum - Leaves, Fall Interest



Acer rubrum - Flowers



Acer rubrum - Leaves, Fall Interest



Acer rubrum - Leaf



*Acer rubrum* - Flowers



*Acer rubrum* - Flowers, Seeds



## Species: *Acer saccharinum*

(ay'ser sak-kar-eye'num)

### Silver Maple

#### Cultivar Information

\* See specific cultivar notes on next page.

#### Ornamental Characteristics

Size: Tree > 30 feet

Height: 50' - 70' (spread 35' - 50')

Leaves: Deciduous

Shape: oval to rounded

Ornamental Other: A particularly large, fast-growing, and as a result, weak-wooded tree. This plant was seen as a good street tree replacement for American Elms, however, due to its weak wooded nature and large size, it is known to drop limbs. This can happen with little to no warning and can cause significant property damage or injury/death. As a result these trees should be planted sparingly and with extreme caution.

#### Environmental Characteristics

Light: Full sun, Part shade

Hardy To Zone: 3a

Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)

Environmental Other: Medium to fine textured foliage, silvery grey underneath, turning soft yellow in fall; silvery gray bark flakes off to expose orange inner bark

#### Insect Disease

anthracnose; leaf spot; tar spot and more; weak wood subject to storm damage

#### Bare Root Transplanting

Any

## Other

transplants well bare root or B & B; vigorous; seeds freely; shallow roots will buckle sidewalks and clog drain tiles; good for poor soils where few other trees will survive

Cultivars for *Acer saccharinum*

Showing **1-5** of **5** items.

Cultivar Name	Notes
Beebe Cutleaf Weeping	'Beebe Cutleaf Weeping' - pendulous branches and deeply incised leaves
Blair	'Blair' - good form, structure and fall color
Laciniatum Wieri	'Laciniatum Wieri' (a.k.a. 'Wieri', 'Asplenifolium') - unfurling leaf is bronze colored; leaf is deeply lobed and particularly glossy on the upper surface
Silver Queen	'Silver Queen' - mostly male flowers, almost seedless
Skinneri	'Skinneri' - extremely incised leaves and graceful horizontal to semi-weeping form; best central leader and widest crotch angles

## Photos



*Acer saccharinum* - Habit



*Acer saccharinum* - Leaves, Buds



Acer saccharinum - Buds



Acer saccharinum - Bark



Acer saccharinum - Leaf



Acer saccharinum - Bark



Acer saccharinum - Buds



*Acer saccharinum* - Leaves



*Acer saccharinum* - Leaf



## Species: *Acer saccharum*

(ay'ser sak-kar'um)

Sugar Maple; Rock Maple; Hard Maple

### Cultivar Information

Large tree except for '**Sugar Cone**', which is a dwarf , <30'.

\* See specific cultivar notes on next page.

### Ornamental Characteristics

Size: Tree > 30 feet, Tree < 30 feet

Height: 60' - 75' (spread variable), some cultivars less than 30'

Leaves: Deciduous

Shape: upright oval to mounded; dense foliage

Ornamental Other:

### Environmental Characteristics

Light: Full sun

Hardy To Zone: 3b

Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)

Environmental Other: Intolerant of compacted soil and urban stresses.

### Insect Disease

few problems unless sited too close to roads and highways; leaf scorch and verticillium wilt; dieback under stress

### Bare Root Transplanting

Easy

### Other

native to North America (eastern Canada south to Texas); easy to transplant; sap is boiled down to

make maple syrup

## Cultivars for *Acer saccharum*

Showing **1-14** of **14** items.

Cultivar Name	Notes
Adirondak	'Adirondak' (a.k.a. 'Adizam') - columnar; turns Golden-Orange and holds late
Bonfire	'Bonfire' - broadly oval, vigorous, bright orange fall foliage
Commemoration	'Commemoration' - oval form; orange-gold in fall; leaves slow to drop
Endowment	'Endowment' - columnar form; bright yellow fall color
Goldspire	'Goldspire' - narrowly pyramidal; foliage turns golden in fall
Legacy	'Legacy' - glossy, thick leaves; drought resistant
Majesty	'Majesty' - large thick leaves; thick branching structure
Seneca Chief	'Seneca Chief' - Muscle like bark
Sugar Cone	'Sugar Cone' slow growing, dwarf (<30') with tight conical canopy, looks like a cartoon-tree when mature
Apollo	'Apollo' (a.k.a. 'Barrett Cole') - semi-dwarf; grows to 30' tall x 10' wide; narrow, columnar form; yellow-orange to red fall color; resistant to Japanese beetle
Autumn Fest	'Autumn Fest' - grows to 50' tall x 35' wide; upright oval form; it is faster growing with a more upright shape than typical of sugar maples
Belle Tower	'Belle Tower' (a.k.a. 'Reba') - grows to 45' tall x 18' wide; columnar oval form; orange-yellow form; Japanese beetle resistant; adapted to heat and humidity
Flashfire	'Flashfire' - grows to 45' tall x 40' wide; broadly oval form; bright red early fall color bearing Sugar Maple for the South; improved mildew resistance
Green Mountain	Oval to round form, 50'-60' feet tall. Vigorous growth with leathery dark green leaves and mixture of red and yellow fall color. Zone 4.

## Photos



*Acer saccharum* 'Sugar Cone'



*Acer saccharum* - Flowers



Acer saccharum - Bark



Acer saccharum - Habit, Fall Interest



Acer saccharum - Leaf



Acer saccharum - Habit



Acer saccharum - Habit



*Acer saccharum* - Leaves, Bark



*Acer saccharum* - Buds



## Species: *Aesculus hippocastanum*

(ess'kue-luss hip-o-kas-tay'num)

Common Horsechestnut; European Horsechestnut

### Cultivar Information

\* See specific cultivar notes on next page.

### Ornamental Characteristics

Size: Tree > 30 feet

Height: 50' - 75' (40' - 70'+)

Leaves: Deciduous

Shape: upright oval to rounded

Ornamental Other: Slow growing

### Environmental Characteristics

Light: Full sun

Hardy To Zone: 4a

Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)

Environmental Other: full sun or light shade; avoid extremely dry situations

### Insect Disease

more susceptible to drought injury and leaf scorch than *A. x carnea*; bacterial leaf blotch; powdery mildew; and more

### Bare Root Transplanting

Moderately difficult

### Other

native to Greece and Albania; transplant B&B

## Cultivars for *Aesculus hippocastanum*

Showing **1-1** of **1** item.

Cultivar Name	Notes
Baumanii	many, with various flower color and form, among them: 'Baumanii' (double white flowers hold longer; free of fruit litter)

## Photos



Branch silhouette



*Aesculus hippocastanum* - Bark



*Aesculus hippocastanum* - Flower



*Aesculus hippocastanum* - Buds



*Aesculus hippocastanum* - Leaf



*Aesculus hippocastanum* - Seeds



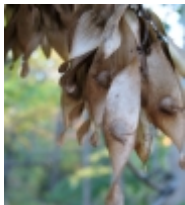
*Aesculus hippocastanum* - Immature Seeds



*Aesculus hippocastanum* - Buds



*Aesculus hippocastanum* 'Baumanii' - Leaves, Flowers



## Species: *Ailanthus altissima*

(ay-lan'thus al-tis'i-mah)

### Tree-of-Heaven

#### Cultivar Information

\* See specific cultivar notes on next page.

#### Ornamental Characteristics

Size: Tree > 30 feet

Height: 40' - 60' (25' - 40')

Leaves: Deciduous

Shape: upright, spreading

Ornamental Other: extremely adaptable - even in poor soil and in proximity to salt; can be a noxious weed

#### Environmental Characteristics

Light: Full sun, Part shade

Hardy To Zone: 5a

Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)

Salt Tolerance: Tolerates salt spray

Environmental Other: dark green foliage gives coarse, tropical appearance; yellow to bright red ornamental fruit on female trees

#### Insect Disease

verticillium can be a problem; short-lived; soft wood is easily damaged by snow and ice

#### Bare Root Transplanting

Any

## Other

dioecious - male plant gives off disagreeable odor; fast-growth; produces considerable litter, native to China, Naturalized in Europe and N. America INVASIVE in North America

Cultivars for *Ailanthus altissima*

Showing **1-5** of **5** items.

Cultivar Name	Notes
Metro	'Metro' - confined crown, male
Pendulifolia	'Pendulifolia' - longer leaves hang downward
var. erythrocarpa	var. erythrocarpa - dark green foliage whitened underneath; bright red fruit
Hongye	'Hongye' - rarely available outside China; leaves emerge purple then fade to reddish green
Thousand Leaders	'Thousand Leaders' - rarely available outside China; tight, round crown

## Photos



*Ailanthus altissima* - Leaves



*Ailanthus altissima* - Habit



*Ailanthus altissima* - Leaves



*Ailanthus altissima* - Leaves, Fruit



*Ailanthus altissima* - Habit



*Ailanthus altissima* - Leaves, Fruit



*Ailanthus altissima* - Habit



*Ailanthus altissima* - Habit



*Ailanthus altissima* - Leaves, Fruit



## Species: *Amelanchier* spp.

(am-ell-lang'kee-er)

Serviceberry; Shadblow

### Cultivar Information

A particularly diverse genus with many confusingly similar species. Both shrub and tree forms exist and multi-stem or single stem varieties are available. All species produce edible fruits, however some are more palatable/productive than others. *A. alnifolia* is a shrub form species with cultivars that are particularly cold hardy (generally to Zone 2 or 3).

\* See specific cultivar notes on next page.

### Ornamental Characteristics

Size: Tree < 30 feet

Height: 6' to 25' with spread 10'-20'

Leaves: Deciduous

Shape: small tree or large multi-stem shrub

Ornamental Other: full sun to part shade

### Environmental Characteristics

Light: Full sun, Part shade

Hardy To Zone: 3b

Soil Ph: Can tolerate acid to neutral soil (pH 5.0 to 7.4)

Environmental Other: white flowers in early spring; edible globular berries; good fall color

### Insect Disease

Cedar-apple rust, fireblight, leaf spot, and mites

### Bare Root Transplanting

Moderately difficult

## Other

Native to Eastern N. America

Cultivars for *Amelanchier* spp.Showing **1-21** of **21** items.

Cultivar Name	Notes
La Paloma	A. 'La Paloma' - drooping racemes; spring foliage emerges red; excellent fall color; small tree-form, to 13'
Northline	'Northline' - free suckering; early bearing; reaches 6-8 feet; heavy yield of large, delicious berries
Martin	'Martin' - early blooming; to 10'; produces large fruit with excellent flavor and uniform ripening
Regent	'Regent' - compact grower, to generally 4 to 6'; tolerates harsh, dry, or alkaline conditions when mature
Smokey	'Smokey' - most popular commercial variety; the flavor standard against which other cultivars are judged; produces a high yield of large fruits that have the highest sugar/acid ratio; to 8'
Standing Ovation	'Standing Ovation' (a.k.a. 'Obelisk') - uniform, columnar habit; spring foliage emerges red
Thiessen	'Thiessen' - vigorous, moderately suckering; to 15'; produces the largest berries of all varieties
Autumn Brilliance	'Autumn Brilliance' - to 15 - 25'; multi-stem, upright, dense habit; little suckering; tolerates a wide range of soils and some drought; supposedly resists leaf spot
Ballerina	'Ballerina' - possibly an A. lamarkii selection; upright habit; spreading branches; flowers are pendulous; spring foliage is bronze-colored, maturing to a dark glossy green in summer and turning a dark bronze-purple in the fall; to 15 - 20'; resistant to leaf spot and fire blight
Cole's Select	'Cole's Select' - low, vase-shaped shrub; multi-stemmed; 15' x 15' at maturity
Cumulus	'Cumulus' - moderately columnar; upright, oval, pyramidal habit; to 15 - 25'
Princess Diana	'Princess Diana' - grows to 25' x 15'; available both in multi-stemmed or single trunk-type forms; resistant to leaf spot fungus; long lasting fall color
Robin Hill	'Robin Hill' - flowers open pink and fade to white
Rubescens	'Rubescens' - pink flowering
Spring Flurry	'Spring Flurry' - an Amelanchier laevis selection; grows to 28' tall x 20' wide; upright oval form; orange fall color; central leader supports strongly upward-oriented scaffold branches
Reflection	'Reflection' (a.k.a. 'Refzam') - oval, upright form; vigorous habit; similar ornamental traits as species; grows to 25' tall x 20' wide

Cultivar Name	Notes
Majestic	'Majestic' - possibly an <i>A. laevis</i> cultivar; narrow form; vigorous growth; long, drooping racemes with many white flowers; new foliage dark, reddish orange color becoming thick and dark green, as they mature; resistant to heat and humidity; reaching twice the height of prior known <i>A. laevis</i> trees during the same growth period
Prince William	'Prince William' - possibly an <i>A. laevis</i> x <i>A. canadensis</i> hybrid ; multi-stemmed, shrubby form; not exceeding 10'; spring foliage emerges red; good fruit set; multi-colored fall leaves
Rainbow Pillar	'Rainbow Pillar' (a.k.a. 'Glenform') - possibly a <i>A. canadensis</i> cultivar; shrubby form; upright, narrow habit; to 20' tall
Spring Glory	'Spring Glory' (a.k.a. 'Sprizam') - possibly an <i>A. canadensis</i> cultivar; compact, upright habit; to 12' tall and 8'-10' wide; orange/yellow fall color
Tradition	'Tradition' (a.k.a. 'Trazam') - possibly an <i>A. canadensis</i> cultivar; maintains a central leader; to 25'-30' tall; good early bloom

## Photos



Amelanchier spp. - Habit, Fall Interest



Amelanchier spp. - Flowers



Amelanchier spp. - Habit



Amelanchier spp. - Habit



Amelanchier spp. - Bark



Amelanchier spp. - Habit



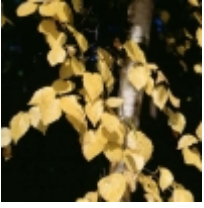
Amelanchier spp. - Immature Flowers



Amelanchier spp. - Flowers



Amelanchier spp. - Leaves



## Species: *Betula papyrifera*

(bet'you-lah pap-i-riff'er-ah)

Paper Birch; Canoe Birch; White Birch

### Cultivar Information

\* See specific cultivar notes on next page.

### Ornamental Characteristics

Size: Tree > 30 feet

Height: 50' - 70' (spread 30' - 60')

Leaves: Deciduous

Shape: pyramidal to oval/rounded; single or multi-stem tree

Ornamental Other:

### Environmental Characteristics

Light: Full sun, Part shade

Hardy To Zone: 3a

Soil Ph: Can tolerate acid to neutral soil (pH 5.0 to 7.4)

Environmental Other: Not drought tolerant.

### Insect Disease

Susceptible to bronze birch borer and leaf miners. Renaissance series of cultivars are purportedly less susceptible to Bronze Birch Borer

### Bare Root Transplanting

Moderately difficult

### Other

Native to North America, Labrador to British Columbia, and northern US; transplants easily B & B

## Cultivars for *Betula papyrifera*

Showing **1-7** of 7 items.

Cultivar Name	Notes
Chickadee	'Chickadee' - columnar form; very white bark
Prairie Dream	'Prairie Dream' (a.k.a. 'Varen') - stress tolerant; resistant to birch borer; single or multi-stemmed
Renaissance Oasis	'Renaissance Oasis' (a.k.a. 'Oenci') - most drought tolerant of the Renaissance series; birch borer resistant; juvenile bark reddish-bronze, turning white with age
Renaissance Reflection	'Renaissance Reflection' (a.k.a. 'Renci') - white bark; greater heat tolerance than species; resistant to birch borer
Snowy	'Snowy' - white bark; resistant to borer
Belle Vue	'Belle Vue' - pinkish-brown mature bark; holds fall foliage late
St. George	'St. George' - particularly fast growing; bark turns pinkish with age

## Photos



*Betula papyrifera* - Bark



*Betula papyrifera* - Catkins



*Betula papyrifera* - Habit, Fall Interest



*Betula papyrifera* - Leaves, Fall Interest



*Betula papyrifera* - Habit



*Betula papyrifera* - Habit, Fall Interest



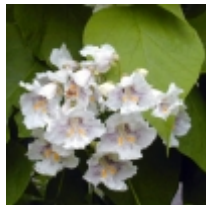
*Betula papyrifera* - Catkins



*Betula papyrifera* - Bark



*Betula papyrifera* - Bud



## Species: *Catalpa speciosa*

(kah-tal'pah spee-see-oh'sah)

Catalpa; Indian Bean

### Cultivar Information

Both the straight species and these cultivars are rare in the trade, this is a genus which deserves greater use and selection.

\* See specific cultivar notes on next page.

### Ornamental Characteristics

Size: Tree > 30 feet

Height: 40' - 60' (20' - 40' spread)

Leaves: Deciduous

Shape: open, irregular, oval crown

Ornamental Other: sun or part-shade; fast growth in moist site.

### Environmental Characteristics

Light: Full sun, Part shade

Hardy To Zone: 4a

Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)

Environmental Other: sun or part-shade; fast growth in moist site.

CU Structural Soil™: Yes

### Insect Disease

No diseases listed

### Bare Root Transplanting

Easy

## Other

transplant B & B or bare root as a small tree, native to Northern and Central Midwestern US.

## Cultivars for *Catalpa speciosa*

Showing **1-6** of **6** items.

Cultivar Name	Notes
Pulverulenta	'Pulverulenta' - <i>C. speciosa</i> cultivar; odd speckled variegation on leaves
Purpurea	<i>C. x erubescens</i> 'Purpurea' - new foliage emerges purple
Aurea	<i>C. bignonioides</i> cultivar; chartreuse foliage
Koehnei	'Koehnei' - <i>C. bignonioides</i> cultivar; yellow variegated foliage
Nana	'Nana' - <i>C. bignonioides</i> cultivar; round-crowned dwarf
Variegata	'Variegata' - variegated foliage

## Photos



flower close-up



Catalpa speciosa - Bark



*Catalpa speciosa* - Leaves, Flowers



*Catalpa speciosa* - Flowers



Catalpa speciosa - Leaves



Catalpa speciosa - Habit



Catalpa speciosa - Habit



*Catalpa speciosa* - Habit



*Catalpa speciosa* - Fruit



## Species: *Fraxinus americana*

(frak'si-nus ah-mer-i-kay'nah)

### White Ash

#### Cultivar Information

\* See specific cultivar notes on next page.

#### Ornamental Characteristics

Size: Tree > 30 feet

Height: 50' - 70'

Leaves: Deciduous

Shape: oval

Ornamental Other: needs full sun

#### Environmental Characteristics

Light: Full sun

Hardy To Zone: 4a

Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)

Environmental Other: attractive yellow to reddish/purple fall color

CU Structural Soil™: Yes

#### Insect Disease

in some areas ash yellows and insect problems may be a hazard. Susceptible to Emerald Ash Borer.

#### Bare Root Transplanting

Easy

#### Other

transplant in spring or fall, native to Eastern and Midwestern N. America.

## Cultivars for *Fraxinus americana*

Showing **1-10** of **10** items.

Cultivar Name	Notes
Autumn Applause	'Autumn Applause' - long lasting maroon fall color
Autumn Blaze	'Autumn Blaze' - oval form with purple fall color
Autumn Purple	'Autumn Purple' (a.k.a. 'Jungiger') - non-fruiting, fast growing, good form and reddish purple fall color, zone 5a
Champaign County	'Champaign County' - tight, dense crown, not much fall color
Rose Hill	'Rose Hill' - non-fruiting, good form, upright branching, red-purple fall color, resistant to frost cracking, zone 5b
Sparzam	'Sparzam' - pyramidal form, fall color: burgundy with bronze highlights
Greenspire	'Greenspire' - upright, narrow form; reaches 40' tall and 30' wide; summer foliage is a good dark green and fall color is dark orange
Northern Blaze	'Northern Blaze' (a.k.a. 'Jeffnor') - growth habit is upright-oval; 60' tall perhaps half as wide; seedless plant; extreme hardiness and resistance to winter damage; fall color purple
Skyline	'Skyline' (a.k.a. 'Skycole') - good form and growth rate; grows symmetrically to 50' tall; strong central leader; lustrous green foliage turns orange or red in fall
Empire	'Empire' - upright narrow pyramidal to oval habit; 50' tall x 25' wide; yellow-orange to purplish fall foliage

## Photos



*Fraxinus americana* - Bark



*Fraxinus americana* - Habit, Fall Interest



*Fraxinus americana* - Leaves



*Fraxinus americana* - Habit



*Fraxinus americana* - Habit



*Fraxinus americana* - Habit



*Fraxinus americana* - Bud



Fraxinus americana - Leaves, Fall Interest



Fraxinus americana - Fall Interest



## Species: *Fraxinus excelsior*

(frak'si-nus ek-sel'si-or)

### European Ash

#### Cultivar Information

There are several cultivars, many readily available in Europe, fewer in the US.

\* See specific cultivar notes on next page.

#### Ornamental Characteristics

Size: Tree > 30 feet

Height: 70' - 80' (60' - 90' spread)

Leaves: Deciduous

Shape: rounded; lower branches upcurving

Ornamental Other:

#### Environmental Characteristics

Light: Full sun

Hardy To Zone: 4b

Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)

Environmental Other: dark green foliage does not change color in fall

CU Structural Soil™: Yes

#### Insect Disease

susceptible to borer, scale and Emerald Ash Borer

#### Bare Root Transplanting

Easy

#### Other

Native to Europe

## Cultivars for *Fraxinus excelsior*

Showing **1-5** of **5** items.

Cultivar Name	Notes
Aurea	'Aurea' - deep yellow fall foliage
Aurea Pendula	'Aurea Pendula' - weeping; deep yellow fall foliage
Globosa	'Globosa' - dense, rounded form
Gold Cloud	'Gold Cloud' - yellow leaves and stems
Hessei	'Hessei' - hardy; vigorous; leaves are simple

## Photos



*Fraxinus excelsior* - Bark



*Fraxinus excelsior* - Buds



*Fraxinus excelsior* - Habit



*Fraxinus excelsior* - Buds



Fraxinus excelsior - Habit



Fraxinus excelsior - Bark



Fraxinus excelsior - Buds



Fraxinus excelsior - Leaf



Fraxinus excelsior - Habit



## Species: *Fraxinus pennsylvanica*

(frak'si-nus pen-sil-van'ni-kah)

Green Ash; Red Ash

### Cultivar Information

\* See specific cultivar notes on next page.

### Ornamental Characteristics

Size: Tree > 30 feet

Height: 50' - 60'

Leaves: Deciduous

Shape: oval, pyramidal

Ornamental Other:

### Environmental Characteristics

Light: Full sun

Hardy To Zone: 3a

Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)

CU Structural Soil™: Yes

### Insect Disease

Resistant to anthracnose; ash borers can be a problem in hot, dry environments; fairly resistant to ash yellows; Emerald ash borer may limit their use in the United States

### Bare Root Transplanting

Easy

### Other

native to eastern North America (from Nova Scotia to Florida and Texas); transplant in spring or fall

## Cultivars for *Fraxinus pennsylvanica*

Showing **1-13** of **13** items.

Cultivar Name	Notes
Bergeson	'Bergeson' - upright; rapid grower; zone 3b
Cimmaron	'Cimmaron' (a.k.a. 'Cimmzam') - strong central leader with good branch structure
Marshall	'Marshall' (a.k.a. 'Marshall's Seedless') - fewer insect and disease problems
Newport	'Newport' - non-fruiting; good form; zone 3b
Patmore	'Patmore' - non-fruiting; upright; zone 3a
Summit	'Summit' - upright; fine-textured foliage, excellent golden yellow fall color; zone 3b
Urbanite	'Urbanite' - compact; pyramidal; thick, leathery foliage; bronze fall color; bark resistant to sun scald; zone 5b
Aucubaefolia	'Aucubaefolia' - irregularly gold flecked foliage
Georgia Gem	'Georgia Gem' (a.k.a. 'Oconee') - seedless green ash cultivar for the South; heat resistance; fast growth; particularly leaves
Harlequin	'Harlequin' - white-variegated foliage
Leprechaun	'Leprechaun' (a.k.a. 'Johnson') - genetic dwarf form; 18' tall x 16' wide; dense, compact, round form; seedless; generally grafted on a 4' or 6' stem
Prairie Spire	'Prairie Spire' (a.k.a. 'Rugby') - seedless; narrow pyramidal habit; hardy to -30°F
Skyward	'Skyward' (a.k.a. 'Wasky') - dense foliage; pyramidal-rounded outline; narrow crown

## Photos



*Fraxinus pennsylvanica* - Habit, Fall Interest



*Fraxinus pennsylvanica* - Leaves, Bark



*Fraxinus pennsylvanica* - Bark



*Fraxinus pennsylvanica* - Bark



*Fraxinus pennsylvanica* - Seeds



*Fraxinus pennsylvanica* - Habit



*Fraxinus pennsylvanica* - Habit



*Fraxinus pennsylvanica* - Buds



*Fraxinus pennsylvanica* - Bud



## Species: *Ginkgo biloba*

(gingk'go bye-lo'bah)

Ginkgo; Maidenhair Tree

### Cultivar Information

There are many rare cultivars (particularly dwarf varieties) of this plant, below are a few of the more readily available varieties.

\* See specific cultivar notes on next page.

### Ornamental Characteristics

Size: Tree > 30 feet

Height: 60' - 100'

Leaves: Deciduous

Shape: irregular when young; pyramidal with age

Ornamental Other: Slow growing

### Environmental Characteristics

Light: Full sun

Hardy To Zone: 4b

Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)

Salt Tolerance: Tolerates salty soil

CU Structural Soil™: Yes

### Insect Disease

pest free

### Bare Root Transplanting

Difficult

## Other

Specify male trees only because of noxious fruit smell (all cultivars are male); transplant in spring or fall, B&B or container; native to China.

Cultivars for *Ginkgo biloba*

Showing **1-13** of **13** items.

Cultivar Name	Notes
Lakeview	'Lakeview' - columnar habit
Princeton Sentry	'Princeton Sentry' - very narrow upright
Presidential Gold	'Presidential Gold' (a.k.a. 'The President') - strong central leader; full branching at a young age; dense upright crown; broadly pyramidal to oval in shape; seedless male selection turns bright yellow in the fall
Autumn Gold	'Autumn Gold' - striking golden yellow color; narrow in youth, it broadens with age to form a broadly pyramidal tree; 45' tall x 35' wide
Halka	'Halka' - slightly broader in shape than most cultivars; notably uniform with symmetrical branching; good central leader; 45' tall x 40' high; hardy through USDA Zone 4
Magyar	'Magyar' - strong upright growth; dominant central leader; faster growing with a slightly broader form than 'Princeton Sentry'; narrow, upright pyramidal form; 50' x 30' wide; hardiness is USDA Zone 3
Golden Colonnade	'Golden Colonnade' - narrow oval; semi-columnar; height of 45' spread of 25'; seedless
Jade Butterfly	'Jade Butterfly' - dwarf, slow-growing form, mature height that is less than half that of standard forms
Pendula	'Pendula' (a.k.a. f. pendula) - variable, weak weeping habit
Saratoga	'Saratoga' - strong central leader; upright, narrow habit; to 40' tall
Variegata	'Variegata' - features leaves that are irregularly streaked with yellow
Troll	'Troll' - dwarf; grows to 3' tall and wide; bushy mounding habit; can be trained as a small pyramidal tree
Tubifolia	'Tubifolia' (a.k.a. 'Tubiformis', 'Tubeleaf') - slow-growing; male form; grows to only 3-4' tall over the first five years; on younger trees, leaves typically roll inward forming tube; as trees grow older, the leaves tend to flatten out, but with a more lacinate form than species leaves; matures to 20-25' tall

## Photos



Massive Ginkgo in Prospect Park , Brooklyn, NY



Ginkgo biloba - Bark



Ginkgo biloba - Habit, Fall Interest



Ginkgo biloba - Seeds, Leaves



Ethan M. Dropkin

Ginkgo biloba - Spur



Ginkgo biloba - Habit



Ginkgo biloba - Leaves, Bark



Ginkgo biloba - Habit



Ginkgo biloba - Leaf



## Species: *Gleditsia triacanthos*

(gleh-dit'si-ah try-a-kan'thos)

Common Honeylocust; Honey Locust

### Cultivar Information

The straight species of this tree possesses large thorns. Most of the cultivars are selected from the var. *inermis* (thornless) variety. The '**Imperial**' cultivar is <30'.

\* See specific cultivar notes on next page.

### Ornamental Characteristics

Size: Tree > 30 feet, Tree < 30 feet

Height: 30' - 70' (variable spread), some cultivars <30'

Leaves: Deciduous

Shape: ovate; fine texture; graceful habit

Ornamental Other:

### Environmental Characteristics

Light: Full sun

Hardy To Zone: 4b

Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)

Salt Tolerance: Tolerates salty soil

Environmental Other: Full sun and drought tolerant.

CU Structural Soil™: Yes

### Insect Disease

Overuse has created many insect problems; honeylocust plant bug, honeylocust borer, midge pod gall, webworm and spider mites

### Bare Root Transplanting

Easy

## Other

Native to central United States.

## Cultivars for *Gleditsia triacanthos*

Showing **1-9** of **9** items.

Cultivar Name	Notes
Moraine	'Moraine' - graceful, umbrella-like habit; thornless
Shademaster	'Shademaster' - vase-like shape; upright, symmetrical habit; to 40' tall; produces some pods; superior drought tolerance; thornless
Skyline	'Skyline' (a.k.a. 'Skycole') - cold-hardy form; reduced fruiting; unusual upright growth habit; broadly pyramidal form; 40' tall and wide; thornless
Sunburst	'Sunburst' (a.k.a. 'Suncole') - golden yellow new foliage turns bright green; more susceptible to insect problems; thornless
var. inermis	var. inermis - thornless variety
Christie	'Christie' (a.k.a. Halka) - sturdy-trunked form; round-headed crown with less drooping branches; to 40' tall and wide; rarely fruits
Imperial	'Imperial' (a.k.a. 'Impcole') - relatively dwarf mature size; to 30' tall; compact spreading habit; produces few pods; thornless
Spectrum	'Spectrum' (a.k.a. 'Speczam') - early spring bright yellow foliage, purportedly holds its golden hue later into the season than other gold-foliaged forms; habit is rounded; to 35' tall and wide
Rubylace	'Rubylace' - bronze-red foliage

## Photos



Thorns



The old form of Honeylocust with prominent forms



*Gleditsia triacanthos* - Leaves, Thorns



*Gleditsia triacanthos* - Bark



Gleditsia triacanthos - Fruit



Gleditsia triacanthos - Habit, Fall Interest



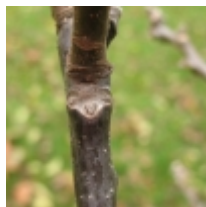
Gleditsia triacanthos - Bud



*Gleditsia triacanthos* - Leaves



*Gleditsia triacanthos* - Habit



## Species: *Juglans nigra*

(jug'lanz nye'grah)

### Black Walnut

#### Cultivar Information

Some rare varieties exist for nut production, few selections have been made for horticultural purposes.

\* See specific cultivar notes on next page.

#### Ornamental Characteristics

Size: Tree > 30 feet

Height: 50' - 75' (equal spread)

Leaves: Deciduous

Shape: massive, upright spreading; oval/rounded crown

Ornamental Other:

#### Environmental Characteristics

Light: Full sun

Hardy To Zone: 4b

Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)

#### Insect Disease

No diseases listed

#### Bare Root Transplanting

Difficult

#### Other

native to eastern U.S. and southern Ontario; taproot - difficult to transplant; nuts can be a litter problem; often restricts growth of other plants near it by exuding an inhibitory chemical from its

roots.

## Cultivars for *Juglans nigra*

Showing **1-1** of **1** item.

Cultivar Name	Notes
Laciniata	'Laciniata' - finely divided leaflets and fernlike texture

## Photos



*Juglans nigra* - Bark



*Juglans nigra* - Bud



*Juglans nigra* - Fruit



*Juglans nigra* - Habit



Juglans nigra - Bark



Juglans nigra - Buds



Juglans nigra - Leaf Scar



*Juglans nigra* - Leaves



*Juglans nigra* - Fruit



## Species: *Malus spp.*

(may'lus flo-ri-bun'dah)

### Flowering Crabapple

#### Cultivar Information

This is a genus with a wide variety of species, varieties, and cultivars. Plants in this genus are generally very susceptible to a wide variety of pests and diseases including but not limited to: fire blight, scab, cedar-apple rust; aphids, etc. Below are a selection of the more pest and disease resistant selections found within this genus. Keep in mind that crabapples are some of these most popular small flowering trees in the trade and new varieties and cultivars are in near constant selection.

\* See specific cultivar notes on next page.

#### Ornamental Characteristics

Size: Tree < 30 feet

Height: 20'

Leaves: Deciduous

Shape: round

Ornamental Other: full sun for best flower and fruit

#### Environmental Characteristics

Light: Full sun

Hardy To Zone: 4b

Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)

Salt Tolerance: Tolerates salty soil

CU Structural Soil™: Yes

#### Insect Disease

cedar-apple rust; scab and mildew; fireblight; Japanese Beetles

## Bare Root Transplanting

Easy

Cultivars for *Malus spp.*

Showing 1-33 of 33 items.

Cultivar Name	Notes
Adams	'Adams' - 20' high and wide; round form; profuse flowering; deep pink buds and flowers; 5/8", persistent red fruit; foliage green with a red tint
Adirondack	'Adirondack' - grows to 18' high x 12' wide; vase-like form; carmine buds that open to white flowers; 1/2", bright red fruit; dark green leathery foliage
American Salute	'American Salute' (a.k.a. 'Amsalzam') - grows to 18' high x 10' wide; upright oval form; rose red buds and flowers; 3/8", cherry red fruit; maroon-red foliage
American Triumph	'American Triumph' (a.k.a. 'Amertrizam') - grows to 20' high x 12' wide; upright columnar form; dark red buds and flowers; dark red/burgundy fruit; reddish-purple foliage
Jackii	'Jackii' - <i>M. baccata</i> cultivar; hardy to zone 3a; grows to 20' high and wide; round form; white-pink bud open early to fragrant white flowers; 3/8" deep purple-red fruit; glossy green foliage
Cardinal	'Cardinal' - grows to 16' high x 22' wide; broad spreading habit; pink buds open to bright pink to red flowers; 1/2", deep red often sparse fruits; glossy dark purple-red foliage
Centurion	'Centurion' (a.k.a. 'Centsam') - grows to 20' high x 15' wide; narrow oval form; dark red buds open to rose red; 5/8" bright red persistent fruit; reddish foliage changing to green
Dolgo	'Dolgo' - grows to 30' high x 25' wide; oval form; white buds and flowers; 1.5" fruit, bright red edible fruit; glossy green foliage
Donald Wyman	'Donald Wyman' - grow to 20' high x 22' wide; round form; pink buds open to abundant white flowers; 3/8", bright red persistent fruit; dark green foliage
Doubloons	'Doubloons' - grows to 18' high x 16' wide; dense oval habit; carmine buds open to double white flowers; 3/8" persistent yellow fruit; deep green foliage
Liset	'Liset' - grows to 15' high and wide; columnar habit; crimson bud open to large pink-red flowers; 1/2", dark red fruit; reddish foliage aging to greenish-bronze
Prairiefire	'Prairiefire' - grows to 20' high x 18' wide; oval, round with age; crimson buds open to pink-red flowers; 1/2", persistent orange-red fruit; reddish aging to green red
Professor Sprenger	'Professor Sprenger' - grows to 20' high and wide; oval form, round with age; pink buds open to fragrant white flowers; 1/2" persistent, orange-red fruits
Purple Prince	'Purple Prince' - grows to 20' high and wide; round habit; carmine buds open to rose red flowers; 3/8", persistent maroon fruit; purple foliage aging to greenish-bronze

Cultivar Name	Notes
Red Jewel	'Red Jewel' (a.k.a. 'Jewelcole') - grows to 15' high x 12' wide; oval form; pink to white buds open to white flowers; 1/2" persistent bright red fruit
Robinson	'Robinson' - grows to 25' high and wide; oval form; crimson buds open to deep pink flowers; 3/8", dark glossy red fruit; reddish aging to bronze green
Royal Raindrops	'Royal Raindrops' (a.k.a. JFS-KW5) - grows to 20' high x 15' wide; upright spreading habit; pink buds that open to bright pinkish red flowers; 1/4", persistent red fruit; purple, cut-leaf foliage, turns orange red in fall
Sentinel	'Sentinel' - grows to 18' high x 12' wide; narrow oval habit; red buds open to to single white flowers; 1/2", persistent bright red fruit; dark green glossy foliage
Snowdrift	'Snowdrift' - grows to 20' high and wide; round, upright, dense, spreading form; pink buds that open to single white flowers; 3/8", persistent orange fruit; bright green glossy foliage
Strawberry Parfait	'Strawberry Parfait' - grows to 18' high x 22' wide; vase-like form; red buds open to large pink flowers; 3/8", yellow fruit; reddish foliage aging to green
Sugartyme	'Sugartyme' (a.k.a. 'Sutyzam') - 18' high x 15' wide; oval habit; pink buds open to fragrant white flowers; 1/2", persistent red fruit
Calocarpa	x zumi 'Calocarpa' - grows to 20' high x 22' wide; round form; deep red buds open to white flowers; 3/8", persistent bright red fruit
Coralburst	'Coralburst' (a.k.a. 'Coralcole') - grows to 15' high and wide; compact habit; dense, rounded form; coral pink buds open to double, rose flowers; 1/2", bronze fruits; mildly susceptible to scab; excellent resistance to most other major diseases
Firebird	'Firebird' - dwarf <i>M. sargentii</i> selection; grows 8' high x 10' wide; rounded spreading form; red buds open to white flowers; 3/8", more persistent bright red fruits than any other natural dwarf crabapple
Golden Raindrops	'Golden Raindrops' (a.k.a. 'Schmidtcutleaf') - 20' high x 15' wide; upright vase-like habit; profuse, white buds and flowers; 1/4", tiny golden yellow fruit; fine textured, deeply cut foliage
Harvest Gold	'Harvest Gold' (a.k.a. 'Hargozam') - grows to 22' high x 18' wide; upright, vase-shaped form; white buds and flowers; 1/2", persistent yellow fruit; fair scab and fire blight resistance; good cedar-apple rust and mildew resistance
Pink Princess	'Pink Princess' (a.k.a. 'Parrsi') - <i>M. sargentii</i> selection; dwarf, grows to 8' tall x 12' wide; low, spreading form; purple foliage, becoming bronze green; rose pink flowers; 1/4", deep red fruit; excellent resistance to scab, fireblight, cedar-Apple Rust, mildew
Purple Prince	'Purple Prince' - grows to 20' tall and wide; rounded form; purple foliage, becoming bronze green; rose red flowers; 3/8" - 1/2", maroon fruit; excellent resistance to scab, cedar-apple rust; good resistance to fireblight and mildew
Royal Raindrops	'Royal Raindrops' - grows to 20' tall x 15' wide; upright spreading form; purple, cutleaf foliage; orange-red fall color; bright pinkish red flowers; 1/4", persistent red fruit; excellent resistance to scab and cedar-apple rust; good resistance to fireblight and mildew

Cultivar Name	Notes
American Spirit	'American Spirit' - rounded form; red buds open to rose-red flowers; produces clusters of persistent red fruits; superior disease resistance; typically matures to 15-18' tall and wide
Madonna	'Madonna' - upright habit; pink buds open to double white flowers; produces golden-red fruits; green foliage emerges bronze; superior disease resistance; grows to 20' tall x 10' wide
Silver Drift	'Silver Drift' - rounded habit; red buds open to white flowers; small persistent red fruits; disease resistant; grows to 20' tall
Malus floribunda	Species with good disease resistance and wider than tall form

## Photos



Malus spp. - Flowers



Malus spp. - Flowers



Malus spp. - Fruit



Malus spp. - Leaves



Malus spp. - Habit



Malus spp. - Habit



Malus spp. - Habit, Flowers



Malus spp. - Habit, Flowers



Malus spp. - Immature Fruit



## Species: *Picea abies*

(pye-see'ah ay'beez)

### Norway Spruce

#### Cultivar Information

This is a very commonly planted tree, in some areas it has a tendency to escape cultivation and naturalize or become invasive. There are hundreds of cultivars and varieties of this species. Many of the cultivars are dwarf or weeping but some are full size. A selection of some of these can be found below.

\* See specific cultivar notes on next page.

#### Ornamental Characteristics

Size: Tree > 30 feet

Height: 60' - 100'

Leaves: Evergreen

Shape: pyramidal; pendulous branches

Ornamental Other: Moderately fast growth rate

#### Environmental Characteristics

Light: Full sun, Part shade

Hardy To Zone: 3b

Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)

#### Insect Disease

No diseases listed

#### Bare Root Transplanting

Difficult

## Other

native to northern and central Europe; transplant B & B in spring or fall

Cultivars for *Picea abies*

Showing **1-17** of **17** items.

Cultivar Name	Notes
Aarburg	'Aarburg' irregularly shaped weeping form; very fast growing; leaders are very strong; grows to 14' tall x 4' wide;
Aurea	'Aurea' (a.k.a. Aurea Magnifica) - slow-growing; dense pyramidal form; golden foliage; grows to 6' tall x 3' wide in 10 years, 35' x 15' at maturity
Aurea Jacobsen	'Aurea Jacobsen' variegated, tops of needles are golden, bottoms of needles are green; narrow upright habit; mature height of 15'-20', with a width of only 4' in 20 years
Acrocona	'Acrocona' - broad upright form; raspberry-red cones on the tips of its branches becomes wider than tall with age
Argenteospicata	'Argenteospicata' (a.k.a. 'Argentea Spicata')- emerging foliage pale green to white; grows to over 40' x 30'
Big Wave	'Big Wave' (a.k.a. Glauca Pendula) - mounding prostrate habit if not staked; 6 - 8' in 10 years; slightly longer, bluer needles; a stronger leader
Bant	'Bant' - miniature form; needles are 1/4" long; stems are only 1" long; grows into a round orb; grows to 1' x 1' in 10 years
Rubra Spicata	'Rubra Spicata' - broad upright habit; emerging needle in spring are maroon to reddish brown
Nidiformis	'Nidiformis' - wide- spreading, low-growing plant; rounded, shrub-like form; branches are layered with a depression in the center of the plant; grows slowly to 3' to 6' tall and up to 10' wide
Pumila	'Pumila' - globular form; rounded habit with erect stems that point outwards.
Pygmaea	'Pygmaea' - tiny; globular form; dense and slow-growing
Cobra	'Cobra' - broad upright form; when staked, trees have a relatively tall, straight, sparsely branched main trunk and a thick, ground-hugging skirt that radiates outward with dancing, cobra-like leaders
Cupressina	'Cupressina' - columnar form; tight branching habit with short, dark green needles; grows to 25 - 30' tall by 6 - 8' wide
Elegantissima	'Elegantissima' - vigorous upright habit; green needles dusted with white; grows to 8' tall x 4' wide in 10 years
Gregoryana Parsonii	'Gregoryana Parsonii' - irregular, dwarf form; thick, green needles; grows to 2 - 5 high and wide
Humilis	'Humilis' - dwarf, irregular upright form; grows to 3' tall x 2' wide in 10 years

Cultivar Name	Notes
Stoner	'Stoner' - miniature; short green needles on thin stems; grows to 2' tall x 1' wide in 10 years

## Photos



Picea abies - Leaves



Picea abies - Leaves



Picea abies - Leaves



Picea abies - Habit



Picea abies - Habit



Picea abies - Habit



Picea abies - Habit



Picea abies - Cone, Leaves



Picea abies - Bark



## Species: *Picea pungens*

(pye-see'ah pun'jenz)

### Colorado Spruce

#### Cultivar Information

\* See specific cultivar notes on next page.

#### Ornamental Characteristics

Size: Tree > 30 feet

Height: 30' - 60'

Leaves: Evergreen

Shape: narrow to broadly pyramidal; densely branched

Ornamental Other:

#### Environmental Characteristics

Light: Full sun, Part shade

Hardy To Zone: 3b

Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)

Salt Tolerance: Tolerates salt spray

Environmental Other: Full sun

#### Insect Disease

No diseases listed

#### Bare Root Transplanting

Difficult

#### Other

native to US. Rocky Mountains; transplant B & B in spring or fall

## Cultivars for *Picea pungens*

Showing **1-12** of **12** items.

Cultivar Name	Notes
Fat Albert	'Fat Albert' - wide habit; rich blue needles
Hoopsii	'Hoopsii' - glaucous blue needles; dense, pyramidal form
Moerheimii	'Moerheimii' - rich blue foliage; more open habit
Thompsonii	'Thompsonii' - silver-blue foliage; symmetrical habit
f. glauca	f. glauca (a.k.a. var. glauca) - natural variants with a degree of bluish foliage; this trait is very variable; most blue-leaved cultivars are merely asexually propagated selections of this form
Glaucia Pendula	'Glaucia Pendula' (a.k.a. 'Glaucia Procumbens', 'Procumbens', 'Glaucia Prostrata' and 'Prostrata') - sprawling forms; good blue needle color
Iseli Fastigiata	'Iseli Fastigiata' - upright, narrow form; strong blue foliage
Iseli Foxtail	'Iseli Foxtail' (a.k.a. 'Foxtail') - needles at the tips of new branches are much shorter than those at the base, thus they stems resemble "foxtails"; needles are blue; plant becomes an open tree; adapts better to hot summers than other forms
Koster	'Koster' (a.k.a. 'Kosteri') - older blue-foliaged selection, not as preferred by horticulturists due to its unpredictability and lack of uniformity between plants
Moerheim	'Moerheim' (a.k.a. 'Moerheimii') - dense-growing; grows to 30' tall; good blue foliage color
Montgomery	'Montgomery' - conical form; dense, globular shape habit; silvery-blue needles
Pendula	'Pendula' - selection forms an upright tree with cascading growth with staking; can also be allowed to grow prostrate as a groundcover; needles are bluish in color

## Photos



*Picea pungens* - Bark



*Picea pungens* - Leaves



*Picea pungens* - Leaves



*Picea pungens* - Habit



Picea pungens - Habit



Picea pungens - Habit



Picea pungens - Habit



*Picea pungens* - Habit



*Picea pungens* - Cones, Leaves



## Species: *Pinus nigra*

(pye'nus nye'grah)

### Austrian Pine

#### Cultivar Information

This is a historically popular species with many cultivars and tends to be salt and urban hardy. Unfortunately this species is particularly susceptible to diplodia blight and should generally be avoided as a result.

\* See specific cultivar notes on next page.

#### Ornamental Characteristics

Size: Tree > 30 feet

Height: 50' - 60' (spread 20' - 40')

Leaves: Evergreen

Shape: Pyramidal; broader with age.

Ornamental Other: Beautiful brown and white bark with age.

#### Environmental Characteristics

Light: Full sun

Hardy To Zone: 4a

Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)

Salt Tolerance: Tolerates salt spray, Tolerates salty soil

Environmental Other: Full sun required

#### Insect Disease

Plagued with Diplodia Tip Blight, which is fatal in Eastern and Midwestern US .

#### Bare Root Transplanting

Difficult

## Other

Native to Europe. Transplant B & B in spring or fall

Cultivars for *Pinus nigra*

Showing **1-18** of **18** items.

Cultivar Name	Notes
Hornibrookiana	'Hornibrookiana' - dwarf, very compact form; grows 2' tall and wider; needles are stiff and deep green
Arnold Sentinel	'Arnold Sentinel' - upright, narrow, full bodied form; dark green needles; grows to 20 - 25' tall x 6 - 7' wide
Black Prince	'Black Prince' - dwarf, globe-shaped habit; very dark green needles; buds are white; grows to 2' x 3 in 10 years
Bambino	'Bambino' - dwarf, flattened-globose form; short, thin, dark green needles; white buds; 1.5' tall x 2' wide in 10 years
Brepo	'Brepo' - dwarf, flattened-globose form; soft, thin dark-green needles; white buds; grows to 1.5' tall x 2' wide in 10 years
Compacta	'Compacta' - dense form; slow growing; grows to 15' tall x 8 - 10' wide; green needles
Contorta	'Contorta' - upright, compact form; green needles are twisted, revealing lighter undersides; grow to 5' tall x 2' wide in 10 years
Frank	'Frank' - slow-growing, compact narrow form; short rich-green needles; grows to 4' tall x 1.5' wide in 10 years
Green Select	'Green Select' - dense, deep green needles and slower, more compact growth; relatively compact; grows to 50' tall x 20' wide
Globosa	'Globosa' - dwarf, dense, round form; dark-green needles; grows to 3' tall x 3' wide in 10 years
Helga	'Helga' - dwarf, globe-shaped; slow-growing; white buds; grows to 4 - 6' tall and wide
Oregon Jade	'Oregon Jade' - broad pyramidal form; slow-growing; rich green needles; grows to 6' tall x 4' wide in 10 years
Komet	'Komet' - columnar dwarf form; lime green needles; plants grow 2-3" a year; grows to 4' tall x 1' wide
Moseri	'Moseri' - dwarf, round to oval form; needles are green in the summer golden in the winter; plant grows 2-3" a year; grows to 3' x 4' in 10 years
Oregon Green	'Oregon Green' - slow growing; grows to 10 - 12' tall x 8 - 10' spread in 10 years, 18 - 20' tall at maturity; dark green
Oregon Jade	'Oregon Jade' - broad pyramidal form; slow-growing; rich green needles; grows to 6' tall x 4' wide in 10 years
Strypemonde	'Strypemonde' - dwarf, broad upright form; prominent white buds; long, dark-green needles

Cultivar Name	Notes
Teardrop	'Teardrop' - tight, narrow pyramidal; grows to 15-25' tall x 5-10' wide

## Photos



Pinus nigra - Bark



Pinus nigra - Cone



Pinus nigra - Cones



Pinus nigra - Leaves



Pinus nigra - Cones



Pinus nigra - Leaves



Pinus nigra - Habit



Pinus nigra - Habit



Pinus nigra - Leaves



## Species: *Pinus strobus*

(pye'nus stroh'bus)

### Eastern White Pine

#### Cultivar Information

Many cultivars are available for this popular native species. Much selection has been done to find dwarf varieties. Below are some of the more interesting /easy to find options.

\* See specific cultivar notes on next page.

#### Ornamental Characteristics

Size: Tree > 30 feet

Height: 50' - 80' (spread 20' - 40')

Leaves: Evergreen

Shape: pyramidal; open & irregular with age

Ornamental Other:

#### Environmental Characteristics

Light: Full sun

Hardy To Zone: 3a

Soil Ph: Can tolerate acid to neutral soil (pH 5.0 to 7.4)

Environmental Other: full sun required; extremely sensitive to air pollution; will not tolerate alkaline soils.

#### Insect Disease

affected by diseases common to all pines. Very intolerant of salt spray.

#### Bare Root Transplanting

Moderately difficult

## Other

Native to Eastern US. Transplant B & B in spring or fall

Cultivars for *Pinus strobus*

Showing **1-22** of **22** items.

Cultivar Name	Notes
Compacta	'Compacta' - dwarf, mounded and compact habit
Globosa	'Globosa' -dwarf, mounded and compact habit
Nana	dwarf form
Fastigiata	branches open at 45 degree angle from central leader
Pendula	very irregular, pendulous habit
Blue Shag	'Blue Shag' - rounded compact form; bluish-green needles
Contorta	'Contorta' - upright pyramidal form; contorted branches
Fastigiata	'Fastigiata' - narrow columnar form; grows to 50' - 70' tall with a much narrower spread (typically 3 times as tall than wide); blue-green needles are long and soft in texture
Glauca	'Glauca' - bluish-green needles
Hillside Winter Gold	'Hillside Winter Gold' - unique full-sized tree; light green summer needles that turn a striking golden yellow in fall and winter
Pendula	'Pendula' - large, pendulous form; exhibits extreme variation in habit and form; branches twist and droop, exposing the gray bark and displaying the long, blue-green needles very effectively; can be trained from an early age to achieve a desired effect
Sea Urchin	'Sea Urchin' - dwarf globular form; blue-green needles; slow-growing
UConn	'UConn' - dense, rounded pyramidal tree; intermediate height; grows to 20' tall blue-green needle color
Angel Falls	'Angel Falls' - weeping form; slow-growing; long, very narrow, light green needles; closely held branches develop graceful draping forms that combine a tall, narrow stature with a broad, flowing skirt
Coney Island	'Coney Island' - dwarf, globe-shaped; long, curvy cones; clusters of long, blue-green needles; rugged, hardy constitution
Fastigiata	'Fastigiata' - narrow upright form; long, slender, blue-green needles; fast-growing
Greg	'Greg' - miniature, globe-shaped form; soft, feathery, tightly-branched mound of narrow, long, medium-green needles
Louie	'Louie' - large, open and upright symmetrical pyramid; long, thin, vibrant-yellow needles that stay brightly-colored year-round,interior foliage stays fresh-green

Cultivar Name	Notes
Macopin	'Macopin' - broad upright form; exuberant cone production; mid-size tree develops an open, irregular habit; soft blue-green foliage
Mini Twists	'Mini Twists' - dwarf, broad upright; small, twisted, curvy, bluish-green needles
Niagara Falls	'Niagara Falls' - weeping, intermediate form
Stony Brook	'Stony Brook' - large, weeping form; prostrate unless staked; contorted branches; clusters of long, widely spaced needles; silver bark

## Photos



Pinus strobus - Bark



Pinus strobus - Cone



Pinus strobus - Habit



Pinus strobus - Habit



Pinus strobus - Bark



Pinus strobus - Leaves



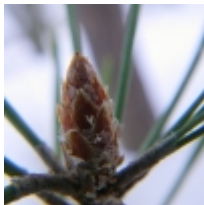
Pinus strobus - Leaves, Cones



Pinus strobus - Habit



Pinus strobus - Bud



## Species: *Pinus sylvestris*

(pye'nus sil-ves'tris)

### Scotch Pine

#### Cultivar Information

\* See specific cultivar notes on next page.

#### Ornamental Characteristics

Size: Tree > 30 feet

Height: 30' - 60' (spread 30' - 40')

Leaves: Evergreen

Shape: irreg. pyramidal; flat-topped or rounded with age

Ornamental Other:

#### Environmental Characteristics

Light: Full sun

Hardy To Zone: 3a

Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)

Environmental Other: Full sun required; tolerant of sterile soils.

#### Insect Disease

Affected by diseases and insect common to all pines

#### Bare Root Transplanting

Difficult

#### Other

Originally native in northern Europe. Now naturalized in eastern US. Transplant B & B in spring or fall

## Cultivars for *Pinus sylvestris*

Showing **1-32** of **32** items.

Cultivar Name	Notes
Fastigiata	narrow columnar habit
Watereri	dense pyramidal to flat-topped, orange brown bark; steel blue needles
Aurea	'Aurea' - light green needles turn bright yellow in winter; slow-growing
Beauvronensis	'Beauvronensis' - very broad habit; compact, dense mound of needles; slow-growing
Hillside Creeper	'Hillside Creeper' - groundcover form; vigorously growth; medium green needles
Albyn Prostrata	'Albyn Prostrata' groundcover form; vigorously growth; thick, shiny green needles
Pumila	'Pumila' - broadly rounded habit; forms a large upright shrub; needles are blue-green
Bonna	'Bonna' - broad crowned form; deep gray-blue needles; orange-brown exfoliating bark; grows to 8' tall x 5' wide in 10 years
Beacon Hill	'Beacon Hill' - dwarf, dense flat-globe form; short blue-green needles; grows to 2.5' tall x 3.5' wide in 10 years
Chantry Blue	'Chantry Blue' - broadly columnar, upright, conical to irregular form; slow-growing; twisted, blue-green needles
Cupcake	'Cupcake' - dwarf, compact, cupcake-top form; grows 2-3 inches a year; light yellowish green needles; grows to 1' X 3' in 10 years
Doone Valley	'Doone Valley' - dwarf, irregular, conical form; short, blue needles; grows to 2 to 3' tall
Frensham	'Frensham' - dense bushy in habit; blue-green needles; grows 2' in 10 years
Gold Coin	'Gold Coin' - dwarf, upright, broadly-pyramidal form; foliage is light green in summer, turning to dazzling gold in winter; grows to 4' tall x 2' wide in 10 years
Globosa Viridis	'Globosa Viridis' - dwarf, broad upright; tufts of green foliage; lighter-green needles and longer, darker-green needles
Jeremy	'Jeremy' - dwarf, globe-shaped form; bright green, short needles; forms a low mound that is wider than tall; profuse small, red buds
Piskowitz	'Piskowitz' - broad upright form; short, sharp, widely-spaced needles have prominent white sheaths; its short; stiff, upright branches; open, architectural silhouette
Slim Jim	'Slim Jim' - dense, columnar, broad upright form; long, twisted, dark-green needles
Glaucia Nana	'Glaucia Nana' - globe-shaped habit; rounded when young, slowly sprawls out and matures to a wider-than-tall flattened form with age; needles, green with blue undertones

Cultivar Name	Notes
Green Penguin	'Green Penguin' - short, wide form; slow grower at 2-3" per year; rich green needles; 3-4' tall x 1-2' wide
Greg's Variegated	'Greg's Variegated' - dwarf, broad upright form; dark green needles with creamy splotches throughout; grows to 12' tall x 6' wide
Inverleith	'Inverleith' - upright, pyramidal form; blue-green needles streaked with creamy white; grows to 6' tall x 3' wide in 10 years
Kelpie	'Kelpie' - miniature, flattened-globose form; short deep green needles; numerous orange-brown buds; grows to 1' tall x 1.5' wide in 10 years
Little Ann	'Little Ann' - miniature, spreading, wiry form; grows 1 inch a year; small green needles; grows to 6" x 16" in 10 years
Little Brolly	'Little Brolly' - miniature, low mounding form; light green, slightly contorted needles; grows to 10" tall x 18" wide in 10 years
Moseri	'Moseri' - dwarf, dense, broad pyramidal form; yellowish-green needles; grows to 4' tall x 3' wide in 10 years
Mitch's Weeper	'Mitch's Weeper' - weeping form; thick green needles; limbs contort and weep; grows to 10' tall x 5' wide in 10 years
Nisbet's Gem	'Nisbet's Gem' (a.k.a. 'Nisbet's Gold') - dwarf, dense upright form; tiny needles become bright gold in winter; grows to 4' tall x 2' wide in 10 years
Pixie	'Pixie' - dwarf form; green needles smaller than species; grows to 2' x 2' 10 years
Repens	'Repens' - miniature, low, dense form; gray-blue needles; white buds; grows to 12" tall x 18" wide in 10 years
Riverside Gem	'Riverside Gem' - dwarf, globe-shaped; grows to 6' x 6' in 10 year
Silver Column	'Silver Column' - tight columnar, pyramidal form; thick blue-green needles; grows to 8' tall x 3' wide in 10 years

## Photos



*Pinus sylvestris* - Bark



*Pinus sylvestris* - Habit



Pinus sylvestris - Cones



Pinus sylvestris - Leaves



Pinus sylvestris - Habit



*Pinus sylvestris* - Leaves



*Pinus sylvestris* - Habit



Pinus sylvestris - Habit



Pinus sylvestris - Bark



## Species: *Platanus occidentalis*

(plat'an-us ok-sih-den-ta'lis)

American Plane Tree; Eastern Sycamore

### Cultivar Information

\* See specific cultivar notes on next page.

### Ornamental Characteristics

Size: Tree > 30 feet

Height: 75' - 100' (equal or greater spread)

Leaves: Deciduous

Shape: irregular, wide-spreading open crown

Ornamental Other: tolerant of urban conditions; requires abundant space; prefers deep, rich soil; full sun - light shade

### Environmental Characteristics

Light: Full sun, Part shade

Hardy To Zone: 4b

Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)

Salt Tolerance: Tolerates salty soil

Environmental Other: tolerant of urban conditions; requires abundant space; prefers deep, rich soil; full sun - light shade

### Insect Disease

many diseases; anthracnose is a serious problem

### Bare Root Transplanting

Any

## Other

easily transplanted; tends to litter the ground with twigs, leaves, bark and fruit, native to Eastern and Midwestern US and Canada.

Cultivars for *Platanus occidentalis*

Showing **1-1** of **1** item.

Cultivar Name	Notes
Howard	'Howard' - new foliage emerges bright yellow, but fades as the summer progresses

## Photos



Large tree lower bark



*Platanus occidentalis* bark



*Platanus occidentalis* Skirt ED



platanus occ color



Platanus occidentalis Foliage ED (2)



PlOc B Beebe



Platanus occidentalis Sapling ED



Platanus occidentalis tree2



DSCN0953



## Species: *Platanus x acerifolia*

(plat'an-us a-ser-i-fo'lee-ah)

### London Planetree

#### Cultivar Information

\* See specific cultivar notes on next page.

#### Ornamental Characteristics

Size: Tree > 30 feet

Height: 70' - 100'

Leaves: Deciduous

Shape: pyramidal when young; open, spreading with age

Ornamental Other:

#### Environmental Characteristics

Light: Full sun

Hardy To Zone: 5b

Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)

Environmental Other: Tolerates wet and intermittently flooded sites; drought tolerant

CU Structural Soil™: Yes

#### Insect Disease

'Columbia' and 'Liberty' resistant to anthracnose & powdery mildew; 'Bloodgood' resistant to Anthracnose; cankerstain may be a problem

#### Bare Root Transplanting

Easy

#### Other

hybrid of *P. orientalis* x *P. occidentalis*; transplant in spring or fall

## Cultivars for *Platanus x acerifolia*

Showing **1-7** of 7 items.

Cultivar Name	Notes
Bloodgood	'Bloodgood' - tolerates severe pruning; rapid grower; reported superior anthracnose resistance, though reports vary regarding this trait; grows to 60' tall
Yarwood	'Yarwood' - tolerant of poor environmental conditions and resists disease; uniform pyramidal habit; dark green leaves; early development of exfoliating bark
Columbia	'Columbia' - pyramidal form; superior resistance to mildew and anthracnose; grows to 50' tall; tolerates heavy pruning, heals wounds well
Liberty	'Liberty' - pyramidal form; vigorous grower; grows to 50' tall; shows good tolerance for mildew, anthracnose, heat and drought
Metroshade	'Metroshade' (a.k.a. 'Metzam') - pyramidal habit; grows strongly to 70' tall; notable disease resistance; lustrous green foliage that emerges with a reddish cast
Mirkovec	'Mirkovec' - dwarf, shrubby habit; unusual variegated lobed leaves with pink, cream and bronze regions
Morton Circle	'Morton Circle' (a.k.a. 'Exclamation!') - anthracnose resistant; densely branched; tolerant of pollution, drought, poor drainage and compacted soils; grows to 60' tall x 45' wide

## Photos



Seed heads in winter



*Platanus x acerifolia* - Bark



Platanus x acerifolia - Habit



Platanus x acerifolia - Habit



Platanus x acerifolia - Leaves



*Platanus x acerifolia* - Habit



*Platanus x acerifolia* - Leaf



Platanus x acerifolia - Seeds



Platanus x acerifolia - Habit



## Species: *Populus alba*

(pop'yous al'bah)

White Poplar; Abele

### Cultivar Information

\* See specific cultivar notes on next page.

### Ornamental Characteristics

Size: Tree > 30 feet

Height: 40' - 70' (equal spread)

Leaves: Deciduous

Shape: wide-spreading; irregular rounded crown

Ornamental Other: prefers deep loam; full sun; tolerant of air pollution

### Environmental Characteristics

Light: Full sun

Hardy To Zone: 4a

Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)

Salt Tolerance: Tolerates salt spray, Tolerates salty soil

Environmental Other: dark green maple-like leaves with woolly white undersides; creamy gray-green bark

### Insect Disease

many problems; serious stem and trunk canker diseases; weak wood susceptible to breakage

### Bare Root Transplanting

Any

### Other

spreads by suckers; weak wood easily damaged by storms causes litter problems; native to Europe

and Asia; roots can clog drain lines and buckle pavement; use of this tree is prohibited in many cities

## Cultivars for *Populus alba*

Showing **1-2** of **2** items.

Cultivar Name	Notes
Pyramidalis	'Nivea' - thick, white pubescence
Nivea	'Pyramidalis' - columnar

## Photos



PoAl B YorkSt



Populus alba leaves2



Populus alba tree



## Species: *Populus deltoides*

(pop'yoo-lus del-toy'deez)

### Eastern Cottonwood

#### Cultivar Information

Some selection has been done for this native species. Due its its tendency to drop branches it is not often used in cultivation as it can pose safety hazards. Selection has been done for cotton-less forms.

\* See specific cultivar notes on next page.

#### Ornamental Characteristics

Size: Tree > 30 feet

Height: 75' - 100' (50' - 75' spread)

Leaves: Deciduous

Shape: upright, spreading, irregular vase-shape

Ornamental Other: tolerates pollution; short-lived; fast-growing

#### Environmental Characteristics

Light: Full sun

Hardy To Zone: 3a

Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)

Salt Tolerance: Tolerates salty soil

Environmental Other: tolerates pollution; short-lived; fast-growing

#### Insect Disease

canker is a serious problem, among many

#### Bare Root Transplanting

Any

## Other

many disease problems cause the tree to drop leaves, twigs and other litter; weak, soft wood susceptible to breakage in storms; easily transplanted, native to Northeastern and Midwest US and Canada.

Cultivars for *Populus deltoides*

Showing **1-5** of **5** items.

Cultivar Name	Notes
Noreaster	'Noreaster' - thicker bark; canker resistant
Siouxland	'Siouxland' - cotton-less form; susceptible to canker
Purple Tower	'Purple Tower' - upright form; dark red/purple leaves; new stems are also red/purple; grows to at least 32' tall x 10' wide
Robusta	'Robusta' - broadly ovate form; fast growing; seedless; reddish foliage turns green; grows to 60' tall x 40' wide
Sparks	'Sparks' - pyramidal form in youth becoming broad-vase shaped with age; open, irregular branching; young stems and trunks greenish-yellow; grows to 75-100' tall x 50-75' wide

## Photos



in cass park



*Populus deltoides* - Bark



*Populus deltoides* - Habit



*Populus deltoides* - Leaves



Populus deltoides - Leaf



Populus deltoides - Habit



Populus deltoides - Habit



*Populus deltoides* - Habit



## Species: *Populus tremuloides*

(pop'yoo-lus trem-you-loy'deez)

### Quaking Aspen

#### Cultivar Information

\* See specific cultivar notes on next page.

#### Ornamental Characteristics

Size: Tree > 30 feet

Height: 40' - 50' (spread 20' - 30')

Leaves: Deciduous

Shape: pyramidal

Ornamental Other:

#### Environmental Characteristics

Light: Full sun

Hardy To Zone: 3a

Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)

Environmental Other: adaptable to soil conditions; fast-growing; short-lived

#### Insect Disease

weak-wooded; susceptible to several diseases that affect poplars. Short lived as a single plant, producing suckers that maintain a group planting over time

#### Bare Root Transplanting

Easy

#### Other

native to northern North America

## Cultivars for *Populus tremuloides*

Showing **1-5** of **5** items.

Cultivar Name	Notes
Pendula	'Pendula' - weeping branches
Mountain Sentinel	'Mountain Sentinel' (a.k.a 'JFS-Column') - narrow, fastigate form; grows to 35' tall x 8' wide
Prairie Gold	'Prairie Gold' (a.k.a. 'NE Arb') - narrow oval to pyramidal form; grows to 40' tall x 15' wide; improved heat, drought and humidity resistance
Driefest	'Driefest' -upright, pyramidal uniform; habit grows to 40' tall x 8' wide; silver bark; orange and red fall foliage
Erecta	'Erecta' - narrow, fastigate form although not as narrow as some other varieties; white bark; grows to 40-50' tall x 10' wide

## Photos



*Populus tremuloides* - Catkins



*Populus tremuloides* - Leaves



Populus tremuloides - Bark



Populus tremuloides - Habit



Populus tremuloides - Habit



Populus tremuloides - Habit



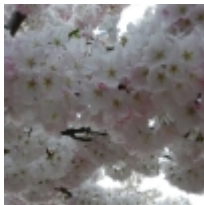
Populus tremuloides - Bark



*Populus tremuloides* - Buds



*Populus tremuloides* - Catkins



## Species: *Prunus* 'Accolade'

### Flowering Cherry 'Accolade'

#### Ornamental Characteristics

Size: Tree < 30 feet

Height: 20'-25', width 15'-25'

Leaves: Deciduous

Shape: rounded to vase-shaped, spreading

Ornamental Other:

#### Environmental Characteristics

Light: Full sun

Hardy To Zone: 5a

Soil Ph: Can tolerate acid to neutral soil (pH 5.0 to 7.4)

Salt Tolerance: Tolerates salt spray

#### Insect Disease

Prunus have many potential problems; 'Accolade'™ is reportedly more resistant than most

#### Bare Root Transplanting

Easy

#### Other

cross: *P. sargentii* x *P. subhirtella*

### Photos



Prunus 'Accolade' - Flowers



Prunus 'Accolade' - Flowers



Prunus 'Accolade' - Flowers



Prunus 'Accolade' - Habit, Flowers



Prunus 'Accolade' - Flowers



## Species: *Prunus cerasifera*

(prue'nus ser-ah-sif'urr-ah)

### Cherry Plum

#### Cultivar Information

\* See specific cultivar notes on next page.

#### Ornamental Characteristics

Size: Tree < 30 feet

Height: 15' - 30' (spread 15' - 25')

Leaves: Deciduous

Shape: small shrubby tree; rounded

Ornamental Other: full sun

#### Environmental Characteristics

Light: Full sun

Hardy To Zone: 5a

Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)

Environmental Other: full sun

#### Insect Disease

many, among them: aphids, borers, scale, tent caterpillars, canker, leaf spots

#### Bare Root Transplanting

Any

#### Other

native to western Asia, Caucasus; transplant B&B, bare root or container grown

## Cultivars for *Prunus cerasifera*

Showing **1-14** of **14** items.

Cultivar Name	Notes
Atropurpurea	'Atropurpurea' - reddish-purple leaves; pink flowers
Krauter Vesuvius	'Krauter Vesuvius' - dark reddish purple leaves; whitish-pink flowers
Newport	'Newport' - bronze-purple new foliage turns dark reddish-purple
Thundercloud	'Thundercloud' - fragrant, single pink flowers; long-lasting deep purple foliage
Mt. St. Helens	'Mt. St. Helens' - a sport of 'Newport'; stronger, more vigorous growing variety; main trunk is sturdier and straighter; grows to 20' tall and wide; large deep purple leaf color
Thundercloud	'Thundercloud' - slightly fragrant, pink blossoms emerge with or slightly before the foliage; deep purple foliage; grows to 20' tall and wide
Crimson Pointe	'Crimson Pointe' (a.k.a. 'Cripoizam') - columnar to narrow oval form; narrowly oval mature canopy; pink buds open to white flowers; foliage purple red to purple bronze; purple, 1" fruits; grows to 25' tall x 10' wide
Blireiana	'Blireiana' - small rounded form; dense branching; new foliage emerges purple red fading to green in summer, turning red bronze in fall; fragrant light pink flowers; grows to 10-20' tall and wide
Oakville Crimson Spire	'Oakville Crimson Spire' - fastigiate, compact habit; branches almost parallel to the main trunk; young foliage emerges a reddish bronze, darkening slightly when mature with a darker underside; white flowers with pinkish-red stamens borne in dense clusters of 3 to 5 blooms; heat tolerant; grows to 20' tall x 7' wide
Golden Sphere	'Golden Sphere' - green foliage; fruiting variety; bears large golden-yellow fruit; grows to 8' - 10' in 5-10 years
Gypsy	'Gypsy' - green foliage; fruiting variety; bright red fruit with an orange flesh and a sugary flavor; grow to 10' - 12' in 5 - 10 years
Hessei	'Hessei' - abundance of single white flowers; mottled white, pink and purple foliage; grows to 13' tall
Purple Pony	'Purple Pony' - semi-dwarf, rounded form; grows to 10-12' tall and wide; pink flowers
Ruby	'Ruby' - green foliage; fruiting variety; dark red flesh with a peach-like flavor; grows to 10 - 12' tall

## Photos



*Prunus cerasifera* - Flowers



*Prunus cerasifera* - Flowers



*Prunus cerasifera* - Habit



*Prunus cerasifera* - Flowers



*Prunus cerasifera* - Habit



*Prunus cerasifera* - Habit, Flowers



*Prunus cerasifera* - Habit, Flowers



*Prunus cerasifera* - Flowers



*Prunus cerasifera* - Leaves



## Species: *Prunus glandulosa*

(prue'nus gland-you-low'sah)

### Dwarf Flowering Almond

#### Cultivar Information

\* See specific cultivar notes on next page.

#### Ornamental Characteristics

Size: Shrub 4 to 8 feet

Height: 4' - 5' (equal spread)

Leaves: Deciduous

Shape: small, wispy shrub

Ornamental Other: durable and adaptable

#### Environmental Characteristics

Light: Full sun

Hardy To Zone: 4b

Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)

Environmental Other: showy, double rose-pink flowers in April/May; leaves bright to medium green - no fall color change; only one season of interest

#### Insect Disease

borers, mice

#### Bare Root Transplanting

Any

#### Other

tendency to sucker

## Cultivars for *Prunus glandulosa*

Showing **1-4** of **4** items.

Cultivar Name	Notes
Alba	'Alba' - single white flowers
Alba Plena	'Alba Plena' - double white flowers
Rosea Plena	'Rosea Plena' (a.k.a. 'Sinensis') - double, pink
Lawrence	'Lawrence' - single white-pink blooms

## Photos



*Prunus glandulosa* flower



*Prunus glandulosa* flower2



## Species: *Prunus laurocerasus*

(prue'nus lor-o-ser-ray'sus)

Common Cherrylaurel; English Laurel

### Cultivar Information

There are several cultivars available for this species. Many varieties are unavailable outside of the United Kingdom/Europe.

\* See specific cultivar notes on next page.

### Ornamental Characteristics

Size: Shrub > 8 feet, Shrub 4 to 8 feet

Height: 10' - 18' (spread 25' - 30')

Leaves: Evergreen

Shape: wide-spreading, dense

Ornamental Other: Sweet smelling, white bottlebrush flowers in early spring.

### Environmental Characteristics

Light: Part shade, Shade

Hardy To Zone: 6a

Soil Ph: Can tolerate acid to neutral soil (pH 5.0 to 7.4)

Environmental Other: Full sun or shade (best in part- to full- shade). Protect from full sun and wind in winter.

### Insect Disease

adequate drainage is needed to prevent insect damage; susceptible to brown rot fungus, white flies, borers

### Bare Root Transplanting

Any

## Other

native to southeastern Europe and Asia Minor; transplant B&B or from container; useful in hedges, screens, massing

## Cultivars for *Prunus laurocerasus*

Showing **1-10** of **10** items.

Cultivar Name	Notes
Otto Luyken	'Otto Luyken' - compact habit; abundant flowers
Schipkaensis	'Schipkaensis' - taller upright form
Mt. Vernon	'Mt. Vernon' - dwarf form, grows slowly and densely; larger leaves; grows to 3' tall
Compacta	'Compacta' - compact form; grows to 4 - 8' tall and wide
Marbled Dragon	'Marbled Dragon' - slow growing; variable and unstable variegation marbled gray or white
Nana	'Nana' - dwarf, spreading form; slow growing to 4 - 6' tall; glossy dark green leaves
Chestnut Hill	'Chestnut Hill' - compact selection; grows to 3 -4 ' tall and wide
Castlewellan	'Castlewellan' - white marbled foliage; grows to 12' high and wide
Camelliifolia	'Camelliifolia' - vigorous; curled leaves; large, densely branching shrub; grows to 13' high and wide
Majestic Jade	'Majestic Jade' (a.k.a. 'Schipka') - large, rounded to vase-shaped form; moderate growth rate; 6 - 8' tall x 5 - 6' wide

## Photos



*Prunus laurocerasus* - Leaf Underside



*Prunus laurocerasus* - Leaves



*Prunus laurocerasus* - Habit



*Prunus laurocerasus* - Habit



Prunus laurocerasus - Habit, Flowers



Prunus laurocerasus - Bud



Prunus laurocerasus - Habit



Prunus laurocerasus - Bark



Prunus laurocerasus - Fruit



## Species: *Prunus maackii*

Amur Chokecherry, Manchurian Chokecherry

### Cultivar Information

\* See specific cultivar notes on next page.

### Ornamental Characteristics

Size: Tree > 30 feet

Height: 35 to 45' tall, 25 to 35' wide

Leaves: Deciduous

Shape: Young trees are pyramidal, rounded and dense at maturity

Ornamental Other: full sun

### Environmental Characteristics

Light: Full sun

Hardy To Zone: 3a

Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)

Environmental Other: full sun

### Insect Disease

aphids, scale, borers

### Bare Root Transplanting

Any

### Other

Native to Manchuria and Korea

## Cultivars for *Prunus maackii*

Showing **1-3** of **3** items.

Cultivar Name	Notes
Amber Beauty	'Amber Beauty'- Forms a uniform tree with slightly ascending branches
Goldspur	'Goldspur' (a.k.a. 'Jefspur') - dwarf, multi-stemmed, narrowly upright and columnar growth habit; resistant to black knot; grows to 15' tall x 10' wide;
Goldrush	'Goldrush' (a.k.a. 'Jefree') - upright growth habit; resistant to black rot; improved resistance to frost cracking; grows to 25' tall x 16' wide

## Photos



*Prunus maackii* - Bark



*Prunus maackii* - Bark



*Prunus maackii* - Bark



*Prunus maackii* - Leaves



*Prunus maackii* - Habit



*Prunus maackii* - Leaves



*Prunus maackii* - Habit



Prunus maackii - Habit



Prunus maackii - Habit



## Species: *Prunus sargentii*

(prue'nus sar-jen'tee-eye)

### Sargent Cherry

#### Cultivar Information

\* See specific cultivar notes on next page.

#### Ornamental Characteristics

Size: Tree > 30 feet

Height: 40' - 50'

Leaves: Deciduous

Shape: vase; round with age

Ornamental Other:

#### Environmental Characteristics

Light: Full sun

Hardy To Zone: 4b

Soil Ph: Can tolerate acid to neutral soil (pH 5.0 to 7.4)

Salt Tolerance: Tolerates salty soil

#### Insect Disease

none serious

#### Bare Root Transplanting

Easy

#### Other

native to Japan; transplant in spring

## Cultivars for *Prunus sargentii*

Showing **1-5** of **5** items.

Cultivar Name	Notes
Accolade	'Accolade' - semi-double flowers; red buds open to pink, hybrid between P. sargentii and P. subhirtella
Columnaris	'Columnaris' - columnar, narrow form
Pink Flair	'Pink Flair' - compact, upright, narrow vase-like form; clustered single pink flowers; flowers 1-2 weeks later than species to avoid frost damage; red-orange fall color; grows to 25' tall x 15' wide
Rancho	'Rancho' - narrowly habit; grows to 30' tall and only 10' wide
Princeton Snowcloud	'Princeton Snowcloud' - white flowers; grow to 25' tall and wide

## Photos



*Prunus sargentii* - Bark



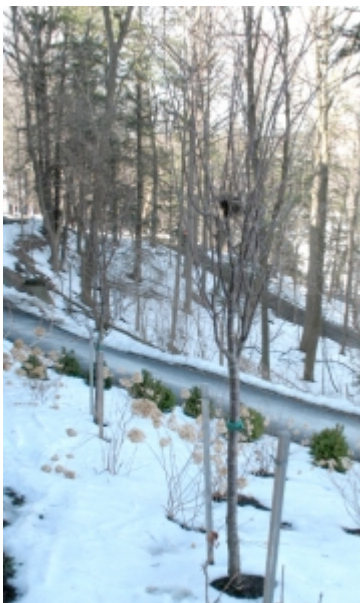
*Prunus sargentii* - Habit, Flowers



*Prunus sargentii* - Habit, Flowers



*Prunus sargentii* - Bark



*Prunus sargentii* - Habit



*Prunus sargentii* - Bark



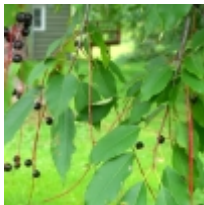
*Prunus sargentii* - Leaf



*Prunus sargentii* - Habit



*Prunus sargentii* 'Columnaris' - Habit, Flowers



## Species: *Prunus serotina*

(prue'nus ser-ot'in-ah)

### Black Cherry

#### Cultivar Information

\* See specific cultivar notes on next page.

#### Ornamental Characteristics

Size: Tree > 30 feet

Height: 50' - 60' (spread 20' - 30')

Leaves: Deciduous

Shape: pyramidal - oval

Ornamental Other: prefers deep, fertile soils

#### Environmental Characteristics

Light: Full sun, Part shade

Hardy To Zone: 3b

Soil Ph: Can tolerate acid to neutral soil (pH 5.0 to 7.4)

Environmental Other: bronze/bright green new foliage matures to dark green, then turns yellow to red in fall; mature bark is gray-black and scaly; white flowers in May; edible berries (red - black) used in wine and jelly

#### Insect Disease

not seriously affected by disease - one of the most trouble-free cherries; wood is brittle and subject to breakage

#### Bare Root Transplanting

Any

## Other

Native to E. N. America

Cultivars for *Prunus serotina*

Showing **1-1** of **1** item.

Cultivar Name	Notes
Spring Sparkle	'Spring Sparkle' (a.k.a. White Sparkle) - dense, weeping form; flowers heavily; displays very good fall color

## Photos



*Prunus serotina* - Leaf



*Prunus serotina* - Leaf



Prunus serotina - Leaves



Prunus serotina - Habit



Prunus serotina - Leaves, Fruit



*Prunus serotina* - Bark



*Prunus serotina* - Bark



*Prunus serotina* - Leaf Midrib



*Prunus serotina* - Bark



## Species: *Prunus serrulata*

(prue'nus ser-u-lay'tah)

### Japanese Flowering Cherry

#### Cultivar Information

\* See specific cultivar notes on next page.

#### Ornamental Characteristics

Size: Tree > 30 feet, Tree < 30 feet

Height: 50' - 75' (cultivar heights 20' - 35')

Leaves: Deciduous

Shape: vase to rounded

Ornamental Other:

#### Environmental Characteristics

Light: Full sun

Hardy To Zone: 5b

Soil Ph: Can tolerate acid to neutral soil (pH 5.0 to 7.4)

#### Insect Disease

Fungus and viruses are a serious problem; short-lived

#### Bare Root Transplanting

Any

#### Other

native to Japan, Korea, China; transplant in spring

## Cultivars for *Prunus serrulata*

Showing **1-14** of **14** items.

Cultivar Name	Notes
Kwanzan	'Kwanzan' - double pink flowers
Mt. Fuji	'Mt. Fuji' (a.k.a. 'Shirotae') - pink buds open to white flowers
Shirofugen	'Shirofugen' - pink bud opens to white flowers; vigorous
Amanogawa	'Amanogawa' - narrow, columnar
Royal Burgundy	'Royal Burgundy' - very similar to 'Kwanzan'; leaves are reddish-purple all season
Shogetsu	'Shogetsu' (a.k.a. 'Shimidsu') - rounded form; double light pink-white blooms; young foliage is bronzy; grows to 20' tall
Autumnalis	'Autumnalis' (a.k.a. 'Jugatsu Sakura', var. autumnalis) - rounded upright form; semi-double pink-white flowers; may re-bloom in the fall; yellow fall color; grows to 15' tall x 25'
Beni-Hoshi	'Beni-Hoshi' - spreading, umbrella-like, low-canopied form; grows to 25' tall; bronze, red, gold, and or orange fall foliage; showy, fragrant, pink flowers
Fugenzo	'Fugenzo' - rounded to horizontal form; rosy-pink, semi-double blooms gradually fading to pale pink; yellow to orange fall foliage; grows to 12' tall and wide
New Red	'New Red' - upright, vase-shaped form; similar to 'Kwanzan' with brighter pink flowers; grows to 15' tall x 12' wide
Prentice Dancer	'Prentice Dancer' - upright, vase-like form; soft pink buds opening to ruffled semi-double white flowers; vigorous grower; orange and red fall color; 15' tall x 12' wide
Ukon	'Ukon' - upright, vase-like when young, spreading with age; pink buds opening to pure white and turning to shades of very light green; orange and red fall color; grows to 12' tall and wide
Ojochin	'Ojochin' - wide-spreading habit; flowers are single, large—up to two inches across—and flat; pink buds open to faintly pink to white blossoms borne in pendent clusters
Okame	'Okame' - rounded, wide spreading form; pink flowers; grows to 15' tall x 20' wide

## Photos



*Prunus serrulata* - Habit



*Prunus serrulata* - Flowers



*Prunus serrulata* - Leaves



*Prunus serrulata* - Habit, Flowers



*Prunus serrulata* - Bark



*Prunus serrulata* - Habit



*Prunus serrulata* - Buds



Ethan M. Dropkin

Prunus serrulata - Bark



Prunus serrulata - Leaves



## Species: *Prunus subhirtella*

(prue'nus sub-hir-tel'ah)

### Higan Cherry

#### Cultivar Information

\* See specific cultivar notes on next page.

#### Ornamental Characteristics

Size: Tree < 30 feet

Height: 20' - 40' (equal spread)

Leaves: Deciduous

Shape: graceful, weeping habit

Ornamental Other:

#### Environmental Characteristics

Light: Full sun, Part shade

Hardy To Zone: 5b

Soil Ph: Can tolerate acid to neutral soil (pH 5.0 to 7.4)

#### Insect Disease

not as seriously affected by disease as other Asian Cherries

#### Bare Root Transplanting

Any

#### Other

native to Japan

## Cultivars for *Prunus subhirtella*

Showing **1-8** of **8** items.

Cultivar Name	Notes
Pendula Plena Rosea	'Pendula Plena Rosea' - double pink flowers
Pendula	'Pendula' - weeping form
Autumnalis	'Autumnalis' - also blooms in the fall some years
Pendula Rubra	'Pendula Rubra' - deeper pink, long-lasting blooms than 'Pendula'
Rosy Cloud	'Rosy Cloud' (a.k.a. 'Pink Cloud') - upright var. autumnalis-type with large, double deep pink blooms
Stellata	'Stellata' (a.k.a. 'Clark's Spring Cherry') - var. autumnalis-type; blooming with clear pink blooms; grows to 15' tall and wider
Whitcomb	'Whitcomb' (a.k.a. 'Whitcombii') - wide-spreading form; var. autumnalis-type; single pink flowers; grows to 25' tall and wide
Winter Sun	'Winter Sun' - weeping selection of var. pendula; light pink blooms over a longer period than the species

## Photos



*Prunus subhirtella* - Bark



*Prunus subhirtella* - Flowers



*Prunus subhirtella* - Flowers



*Prunus subhirtella* - Flowers



*Prunus subhirtella* - Habit, Flowers



*Prunus subhirtella* - Habit, Flowers



*Prunus subhirtella* - Buds



*Prunus subhirtella* - Bark



*Prunus subhirtella* - Habit



## Species: *Prunus tomentosa*

(prue'nus to-men-toh'sah)

Manchu Cherry; Nanking Cherry

### Cultivar Information

\* See specific cultivar notes on next page.

### Ornamental Characteristics

Size: Shrub > 8 feet

Height: 8' - 9' (spread 15')

Leaves: Deciduous

Shape: rounded

Ornamental Other: full sun; tolerates extreme cold and wind

### Environmental Characteristics

Light: Full sun

Hardy To Zone: 3a

Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)

Environmental Other: full sun; tolerates extreme cold and wind

### Insect Disease

No diseases listed

### Bare Root Transplanting

Any

### Other

Edible fruit native to China and Japan; plant in groups for best fruiting

## Cultivars for *Prunus tomentosa*

Showing **1-3** of **3** items.

Cultivar Name	Notes
Leucocarpa	'Leucocarpa' - white fruits
Orient	'Orient' - large orange-red fruits
Pink Candles	'Pink Candles' - upright spreading form; deeply veined green foliage; pink flowers appear before foliage; small edible red cherries are excellent for jellies and preserves, also attracting birds; very hardy; grows to 5 - 10' tall x 10 - 20' wide

## Photos



*Prunus tomentosa* - Flowers



*Prunus tomentosa* - Flowers



*Prunus tomentosa* - Leaves



*Prunus tomentosa* - Habit



Prunus tomentosa - Habit



Prunus tomentosa - Habit



Prunus tomentosa - Flowers



## Species: *Prunus virginiana*

(prue'nus ver-jin-i-ay'nah)

### Chokecherry

#### Cultivar Information

All varieties produce fruit which is very astringent, hence the common name. Fruit may be used in sauces, jellies and preserves, however. Fruits are very attractive to wildlife.

\* See specific cultivar notes on next page.

#### Ornamental Characteristics

Size: Tree < 30 feet

Height: 20' - 35' (spread 18' - 25')

Leaves: Deciduous

Shape: small tree or large shrub; oval-rounded crown

Ornamental Other:

#### Environmental Characteristics

Light: Full sun

Hardy To Zone: 3a

Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)

#### Insect Disease

VERY SUSCEPTIBLE to eastern tent caterpillar and black knot fungus. In areas where these are a problem, this plant shouldn't be used.

#### Bare Root Transplanting

Easy

#### Other

native to Canada and northern U.S.; suckers heavily

## Cultivars for *Prunus virginiana*

Showing **1-8** of **8** items.

Cultivar Name	Notes
Schubert	'Schubert' - pyramidal habit; grows to 20-30' tall; foliage emerges green in spring, gradually maturing to dark purple by early summer; white flowers in racemes in spring give way in summer to clusters of reddish fruit which mature in fall to a dark purple
Canada Red	'Canada Red' - small white flowers in hanging clusters 3-5" long are produced in spring; green leaves in the spring, which turn dark purple by mid-summer; grows to a height of 20-25' but less in spread
Boughen's Chokeless	'Boughen's Chokeless' - non-astringent fruit
Copper Schubert	'Copper Schubert' - copper leaves
Mini-Schubert	'Mini-Schubert' - compact, purple leaved form
Robert	'Robert' - red-purple leaves
Bailey Select	'Bailey Select' - oval form; vigorous; straight gun-grey trunk; foliage emerges green, matures to purple giving a two-tone effect early in the summer; large white flowers; small black fruit that attracts birds
Purple Jewel	'Purple Jewel' - hardy non-fruiting form; larger leaves than other cultivars; new growth turns a deep wine red, with gorgeous, soft, blue-mauve undersides

## Photos



*Prunus virginiana* 'Canada Red' - Habit



*Prunus virginiana* 'Canada Red' - Habit



*Prunus virginiana* - Leaf



*Prunus virginiana* - Flowers



*Prunus virginiana* - Habit



*Prunus virginiana* - Flowers



*Prunus virginiana* - Leaves



*Prunus virginiana* - Flowers



*Prunus virginiana* - Fruit



## Species: *Prunus x yedoensis*

### Yoshino Cherry

#### Cultivar Information

\* See specific cultivar notes on next page.

#### Ornamental Characteristics

Size: Tree < 30 feet

Height: 15-25'

Leaves: Deciduous

Shape: spreading, rounded habit

Ornamental Other: Famed as the tidal basin cherry of Washington DC.

#### Environmental Characteristics

Light: Full sun, Part shade

Hardy To Zone: 5b

Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)

Environmental Other: Very early beautiful pink or white flowers

#### Insect Disease

No diseases listed

#### Bare Root Transplanting

Any

#### Other

Native to China.

## Cultivars for *Prunus x yedoensis*

Showing **1-10** of **10** items.

Cultivar Name	Notes
Akebono	'Akebono', single, pink flowers fading to white
Cascade Snow	'Cascade Snow', white flowers and good yellow fall color
Shidare-yoshino	'Shidare-yoshino', weeping, white flowered form
Afterglow	'Afterglow' selection of 'Akebono' with pink blooms; upright-spreading habit; yellow fall color
Cascade Snow	'Cascade Snow' ('Berry') - white-flowered form; resistant to leaf diseases; yellow fall foliage; grows to 25' tall tree
Ivensii	'Ivensii' - umbrella form; weeping form; bears white flowers
Washi-no-o	'Washi-no-o' weeping, white-flowered form
Yoshino Pink Form	'Yoshino Pink Form' - weeping pink flowered form
Pink Shell	'Pink Shell' - weeping pink flowered form
Snow Fountains	'Snow Fountains' (a.k.a. 'White Fountain') - semi-weeping tree; pure white blooms in early spring; grows to 12' tall; healthy green foliage that turns orange-yellow in fall

## Photos



*Prunus x yedoensis* - Habit



*Prunus x yedoensis* - Leaves



B. Denig

*Prunus x yedoensis* - Leaves, Bark



B. Denig

*Prunus x yedoensis* - Bark



Elvira M. Diaz-Gil

Prunus x yedoensis - Bark



Prunus x yedoensis - Leaf



Prunus x yedoensis - Sepals



*Prunus x yedoensis* 'Yoshino'



flowers and habit



## Species: *Pyrus calleryana*

(pye'rus kal-ler-ee-ay'nah)

### Callery Pear

#### Cultivar Information

Prized for its spring flower show, glossy foliage, fall color, and urban tolerance this species has a variety of cultivars. Older varieties have problems with poor branch angles, resulting in splitting. Fire blight can be a problem with some. This species has been shown to have invasive tendencies throughout most of its range (particularly in Zone 6 and warmer). No truly sterile cultivars are known at this time.

\* See specific cultivar notes on next page.

#### Ornamental Characteristics

Size: Tree > 30 feet

Height: 30' - 50'

Leaves: Deciduous

Shape: round, pyramidal

Ornamental Other:

#### Environmental Characteristics

Light: Full sun

Hardy To Zone: 5a

Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)

Salt Tolerance: Tolerates salty soil

CU Structural Soil™: Yes

#### Insect Disease

'Autumn Blaze', 'Cleveland Select', 'Fauriei' and 'Whitehouse' tolerant to fireblight. 'Aristocrat' somewhat susceptible to fireblight

## Bare Root Transplanting

Easy

## Other

native to China; transplant in spring. May become invasive in zones 5 and warmer

Cultivars for *Pyrus calleryana*

Showing 1-17 of 17 items.

Cultivar Name	Notes
Aristocrat	'Aristocrat' - upright; vigorous; good branching angles; later blooming; good fall color
Autumn Blaze	'Autumn Blaze' - good branching angles; early bright red fall color; most cold hardy
Chanticleer	'Chanticleer' (a.k.a. 'Glen's Form', 'Select', 'Cleveland Select', 'Stone Hill' and 'Stonehill') - upright, pyramidal habit; grow to to 30' tall x 15' wide; fireblight resistance; attractive red-purple fall color.
Bradford	'Bradford' - early-flowering; dense branching and broadly pyramidal habit; grows to 50' tall x 40' wide; good resistance to fireblight; genetic predisposition to form tight branch crotch angles that split causing maintenance issues and safety hazards, as a result, no longer a valid cultivar
Capital	'Capital' - fastigiate form; grows to 35' tall x 10' wide; glossy green foliage turns red-purple come fall, very susceptible to fireblight, this disease problem may recommend against its use
Fauriei	'Fauriei' (a.k.a. <i>Pyrus fauriei</i> , <i>P. calleryana</i> var. <i>fauriei</i> ) - pyramidal-rounded form; grows slowly to 40' tall; flowers heavily, but is not as fine an ornamental as other types; fall foliage colors yellow to red earlier than other types
Jack	'Jack' (a.k.a. 'Jaczam') - rounded, dwarf habit; dense growth; mature size less than half that of standard forms, grows to 20' tall and wide; lustrous foliage and white flowers
Jill	'Jill' (a.k.a. 'Jilzam') rounded, dwarf habit; dense growth; mature size less than half that of standard forms, grows to 20' tall and wide; lustrous foliage and white flowers
Redspire	'Redspire' - pyramidal-oval form; looser in form than 'Bradford'; slower growth; earlier fall color with shades of yellow to red; prone to fireblight
Whitehouse	'Whitehouse' - fastigiate pyramidal form; grows to 40' tall x 15' wide; flowers about a week later than other cultivars; develops fall color earlier; heavily afflicted by leaf diseases
Burgundy Snow	'Burgundy Snow' (a.k.a. 'Bursnozam') - pyramidal, well-balanced form; flowers profusely; grows to 30' tall x 20' wide
Dancer	'Dancer' - serrate leaves

Cultivar Name	Notes
Holmford	'Holmford' - marketed at the new 'Bradford'; glossy green foliage; yellow to orange-red fall foliage; grows to 35' tall x 30' wide; better disease resistance and branch angles than 'Bradford'
Korean Sun	'Korean Sun' (a.k.a. 'Westwood') - compact and rounded form; grows to 15' tall
Trinity	'Trinity' - one of the improved form post-'Bradford' selections; dense, well-rounded form; negligible fruit; glossy green leaves turn orange-red in autumn; grows to 30' tall
Javelin	'Javelin' - fastigiate, tightly columnar form; purple to bronze green foliage, purple to maroon fall color; pink buds open to white flowers; fireblight resistant; grows to 35' tall x 10' wide
'Chastity'	First truly sterile form of this tree. Should be used where chance of invasiveness is probable

## Photos





Chastity Callery Pear . Triploid and sterile



Pyrus calleryana - Leaves, Fall Interest



*Pyrus calleryana* - Bark



*Pyrus calleryana* - Bud



*Pyrus calleryana* - Flowers



*Pyrus calleryana* - Habit



*Pyrus calleryana* - Habit, Flowers



## Species: *Quercus palustris*

(kwer'kus pah-lus'tris)

Pin Oak; Swamp Oak

### Cultivar Information

\* See specific cultivar notes on next page.

### Ornamental Characteristics

Size: Tree > 30 feet

Height: 50' - 70'

Leaves: Deciduous

Shape: pyramidal, oval with age;

Ornamental Other: Strong central leader. Upper branches grow upward, middle branches grow outward, lower branches grow downward.

### Environmental Characteristics

Light: Full sun

Hardy To Zone: 5a

Soil Ph: Requires acid (pH 5.0 to 7.0)

Environmental Other: iron chlorosis on high pH soils

### Insect Disease

overplanting has encouraged insect problems; resistant to anthracnose; preferred by orange-striped oakworm

### Bare Root Transplanting

Moderately difficult

### Other

Native to U.S. (Massachusetts to Wisconsin, south to Delaware and Arkansas); transplant in

spring; pendulous lower branches may need to be removed for pedestrian or vehicular traffic; one of the easiest oaks to transplant

## Cultivars for *Quercus palustris*

Showing **1-7** of 7 items.

Cultivar Name	Notes
Crownright	'Crownright' (a.k.a. 'Crown Right') - upright habit; branches point upward, avoiding the need to prune up lower branches, as is the case with other selections of this species
Green Pillar	'Green Pillar' (a.k.a. 'Emerald Pillar') - fastigiate form; glossy leaves turn red in fall
Sovereign	'Sovereign' - superior branching, form, vigor, and foliage quality. It also lacks pendulous lower branches; unfortunately it often develops grafting issues
Green Dwarf	'Green Dwarf' - dense, bushy habit; glossy green leaves which turn rich-red and orange in autumn; very slow growing; grows to 8' high and wide
Isabel	'Isabel' - cone shaped, dense, bushy habit; red and orange autumn colors; larger than other dwarf forms; grows to 13' tall x 10' wide
Flaming Suzy	'Flaming Suzy' - fast growing; scarlet autumn foliage; grows to 65' tall x 50' wide
Swamp Pygmy	'Swamp Pygmy' - dwarf form, similar to 'Green Dwarf'

## Photos



Chlorotic



*Quercus palustris* - Habit, Fall Interest



*Quercus palustris* - Leaves, Fall Interest



*Quercus palustris* - Leaves



*Quercus palustris* - Habit



*Quercus palustris* - Habit



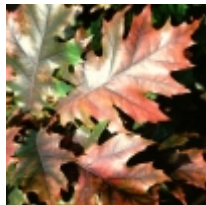
*Quercus palustris* - Habit



*Quercus palustris* - Habit



*Quercus palustris* - Bark



## Species: *Quercus rubra*

(kwer'kus rue'brah)

Red Oak; Northern Red Oak

### Cultivar Information

\* See specific cultivar notes on next page.

### Ornamental Characteristics

Size: Tree > 30 feet

Height: 60' - 75' (equal spread)

Leaves: Deciduous

Shape: round habit in youth and maturity

Ornamental Other:

### Environmental Characteristics

Light: Full sun

Hardy To Zone: 3b

Soil Ph: Can tolerate acid to neutral soil (pH 5.0 to 7.4)

Salt Tolerance: Tolerates salty soil

### Insect Disease

oak wilt is a serious problem in more southern areas; resistant to anthracnose; preferred by orange-striped oakworm

### Bare Root Transplanting

Easy

### Other

native to North America (Nova Scotia to Pennsylvania, west to Minnesota and Iowa); transplant in spring; like *Q. palustris*, relatively easy to transplant

## Cultivars for *Quercus rubra*

Showing **1-4** of **4** items.

Cultivar Name	Notes
Aurea	'Aurea' - young leaves emerge with a golden yellow color which matures to green; uncommon in the trade
Splendens	'Splendens' - notably red fall color
Boltes Gold	'Boltes Gold' - golden-yellow leaves in spring, darkening to lime green as they age; leaves turn shades of red and orange in autumn; leaves of this selection are less prone to burning than the more common <i>Q. rubra</i> 'Aurea'; grows to 50' tall x 32'wide
Magic Fire	'Magic Fire' - yellow leaves in autumn; slow growing to 32 ft tall x 26' wide

## Photos



*Quercus rubra* - Bark



*Quercus rubra* - Habit



Quercus rubra - Leaves



Quercus rubra - Leaves, Fall Interest



Quercus rubra - Habit



Quercus rubra - Habit



Quercus rubra - Bud



*Quercus rubra* - Habit



*Quercus rubra* - Habit



## Species: *Salix alba* 'Tristis'

(say'liks al'bah tris'tis)

### Weeping Golden Willow

#### Cultivar Information

\* See specific cultivar notes on next page.

#### Ornamental Characteristics

Size: Tree > 30 feet

Height: 50' - 70' (to 80')

Leaves: Deciduous

Shape: graceful, weeping tree; rounded outline

Ornamental Other: full sun; cold hardy

#### Environmental Characteristics

Light: Full sun

Hardy To Zone: 4a

Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)

Environmental Other: full sun; cold hardy

#### Insect Disease

subject to breakage; many disease and insect problems including canker

#### Bare Root Transplanting

Any

#### Other

native from southern Europe to western Siberia, central Asia, China; easy to transplant; one of the first trees to leaf out and last to shed its leaves; twig litter can be a nuisance, native to Central Europe and Central Asia. Naturalized in North America.

## Cultivars for *Salix alba* 'Tristis'

Showing **1-1** of **1** item.

Cultivar Name	Notes
Salix 'Prairie Cascade'	Selected in Manitoba for cold hardiness. Weeping habit and golden stems. More upright form in warm climates.

## Photos



Salix alba 'Tristis' - Habit



Salix alba 'Tristis' - Buds



Salix alba 'Tristis' - Habit



Salix alba 'Tristis' - Habit



Salix alba 'Tristis' - Habit



Salix alba 'Tristis' - Habit



Salix alba 'Tristis' - Bud



Salix alba 'Tristis' - Leaf



Salix alba 'Tristis' - Bark



## Species: *Salix candida*

Sageleaf Willow; Hoary Willow

### Cultivar Information

\* See specific cultivar notes on next page.

### Ornamental Characteristics

Size: Shrub < 4 feet

Height: 3-4'

Leaves: Deciduous

Shape: caning, upright shrub to small tree

Ornamental Other: Foliage can be leathery and glossy green on top and felted silver-grey beneath or silvery-grey and pubescent on top and bottom. It bears yellow catkins in the spring.

### Environmental Characteristics

Light: Full sun

Hardy To Zone: 3a

Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)

Environmental Other: Native across almost all of northern North America. One of the most extremely cold hardy plants, hardy to USDA Zone 1. Very tolerant of saturated soils and high pH. It's drought tolerance is untested but is likely good.

### Insect Disease

### Bare Root Transplanting

Any

## Cultivars for *Salix candida*

Showing **1-1** of **1** item.

Cultivar Name	Notes
Silver Fox	'Silver Fox' - compact, dwarf form; felted, bright silvery leaves; dramatic yellow winter buds and twigs; grows to 3' tall and wide

## Photos







## Species: *Salix caprea*

(say'liks cap'ree-ah)

Goat Willow; Pussy Willow

### Cultivar Information

This European species has few cultivars how ever there are several closely related species that also can sometime be found in cultivation: *S. discolor* (North America; 'Rosea' has pale rosy catkins), and *S. gracilistyla* (Asia; 'Melanostachys' bears black catkins with red anthers)

\* See specific cultivar notes on next page.

### Ornamental Characteristics

Size: Shrub > 8 feet

Height: 15' - 25' (to 30') (12' - 15' spread)

Leaves: Deciduous

Shape: shrub or small tree

Ornamental Other: best in full sun (rangy in shade)

### Environmental Characteristics

Light: Full sun, Part shade

Hardy To Zone: 3b

Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)

Environmental Other: flowers very early - March or April; soft silky catkins (hence the common name)

### Insect Disease

short-lived due to many insect and disease problems

### Bare Root Transplanting

Any

## Other

native to Europe, northeast Asia, Japan. Range map is for *Salix discolor*, native to North America

Cultivars for *Salix caprea*

Showing **1-2** of **2** items.

Cultivar Name	Notes
Curly Locks	'Curly Locks' - grafted weeping tree with twisted branches and foliage
Pendula	'Pendula' (a.k.a.'Kilmarnock' and 'Weeping Sally') - grafted weeping tree

## Photos



Salix caprea - Fruit



Salix caprea - Fruit, Leaf



Salix caprea - Habit



Salix caprea - Habit



Salix caprea - Habit



*Salix caprea* - Leaves



*Salix caprea* - Male Catkins, Male Fruit



*Salix caprea* - Habit



Salix caprea - Bark



## Species: *Salix integra* 'Hakuro Nishiki'

(say'liks in-teh'grah)

### Nishiki Willow

#### Cultivar Information

\* See specific cultivar notes on next page.

#### Ornamental Characteristics

Size: Shrub 4 to 8 feet

Height: up to 10'. Can be easily kept shorter by severe pruning in Spring.

Leaves: Deciduous

Shape: shrub

Ornamental Other: salmon pink new shoots age to white variegation and may be seen as a shrub or grafted as tree form

#### Environmental Characteristics

Light: Full sun

Hardy To Zone: 5b

Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)

#### Insect Disease

bacterial twig light; crown gall; leaf blight; black canker

#### Bare Root Transplanting

Any

#### Other

cut back late in winter to encourage new growth

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## Cultivars for *Salix integra* 'Hakuro Nishiki'

Showing **1-1** of **1** item.

Cultivar Name	Notes
Albemaculata\	\'Albemaculata\'

## Photos



*Salix integra* 'Hakuro Nishiki' - Leaves



*Salix integra* 'Hakuro Nishiki' - Leaves



*Salix integra* 'Hakuro Nishiki' - Habit



*Salix integra* 'Hakuro Nishiki' - Habit



*Salix integra* 'Hakuro Nishiki' - Habit



*Salix integra* 'Hakuro Nishiki' - Habit



*Salix integra* 'Hakuro Nishiki' - Shoots



*Salix integra* 'Hakuro Nishiki' - Leaves



## Species: *Salix irrorata*

Dewystem Willow; Bluestem Willow

### Ornamental Characteristics

Size: Shrub > 8 feet

Height: 6 - 10'

Leaves: Deciduous

Shape: dense, upright form

Ornamental Other: Stems are bluish-white to blue/bluish purple. Stem color contrasts well with yellow spring catkins and yellow fall foliage.

### Environmental Characteristics

Light: Full sun

Hardy To Zone: 5a

Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)

### Insect Disease

### Bare Root Transplanting

Any

## Photos







## Species: *Salix matsudana* 'Tortuosa'

(SAY-licks mat-soo-DAY-nuh)

### Dragon's Claw Willow

#### Ornamental Characteristics

Size: Tree < 30 feet

Height: 20-25 feet

Leaves: Deciduous

Shape: Upright Spreading

Ornamental Other:

#### Environmental Characteristics

Light: Full sun

Hardy To Zone: 5b

Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)

Salt Tolerance: Tolerates salt spray

#### Insect Disease

Canker

#### Bare Root Transplanting

Any

#### Other

Prone to branch breakage and needs consistent pruning to remove dead wood

### Photos



*Salix matsudana* 'Tortuosa'



*Salix matsudana* 'Tortuosa' - Leaves



*Salix matsudana* 'Tortuosa' - Leaves



*Salix matsudana* 'Tortuosa' - Bark



Salix matsudana 'Tortuosa' - Bud



Salix matsudana 'Tortuosa' - Leaves



Salix matsudana 'Tortuosa' - Habit



*Salix matsudana* 'Tortuosa' - Habit, Bark



*Salix matsudana* 'Tortuosa' - Bark



## Species: *Salix nigra*

(say'liks nye'grah)

### Black Willow

#### Ornamental Characteristics

Size: Tree > 30 feet

Height: 50'

Leaves: Deciduous

Shape: broad, irregular oval; coarse texture

Ornamental Other:

#### Environmental Characteristics

Light: Full sun

Hardy To Zone: 3b

Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)

#### Insect Disease

many insect and disease problems

#### Bare Root Transplanting

Any

#### Other

Very weak-wooded. Breaks apart easily. Naturalizes freely and invasive in wet areas. Native over an extensive range in North America.

### Photos



*Salix nigra* - Bark



*Salix nigra* - Habit



© John M. Drankin

Salix nigra - Bark



Salix nigra - Habit



Salix nigra - Habit



*Salix nigra* - Bud



*Salix nigra* - Habit



## Species: *Salix purpurea*

(say'liks per-poo'ree-ah)

Purple osier Willow; Basket Willow

### Cultivar Information

\* See specific cultivar notes on next page.

### Ornamental Characteristics

Size: Shrub > 8 feet, Shrub 4 to 8 feet

Height: 8' - 10' (spread 12' - 15')

Leaves: Deciduous

Shape: round, dense, finely branched

Ornamental Other: best in full sun

### Environmental Characteristics

Light: Full sun

Hardy To Zone: 3b

Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)

Environmental Other: best in full sun

### Insect Disease

prone to a variety of insect and disease problems

### Bare Root Transplanting

Any

### Other

*S. purpurea* native to Europe, North Africa, central Asia, Japan; introduced by Soil Conservation Service, USDA; useful for stream bank stabilization; lay bundles in stream stabilization areas and will send up shoots to help prevent erosion; needs maintenance to remain attractive; useful for

phytoremediation

## Cultivars for *Salix purpurea*

Showing **1-6** of **6** items.

Cultivar Name	Notes
Canyon Blue	'Canyon Blue' - semi-dwarf to 5 feet; steely blue-gray foliage; low and rounded
Gracilis	'Gracilis' - medium height to 6 feet; slender upright stems
Pendula	'Pendula' - spreading, pendant growth habit
Nana	'Nana' - semi-dwarf to 6 feet; striking blue-green foliage
Nancy Saunders	'Nancy Saunders' - female clone; silvery-grey leaves on glossy, maroon-red stems
Streamco	'Streamco' - very vigorous growth; readily suckers and self layers; selected for streambank stabilization

## Photos



*Salix purpurea* 'Nana'



*Salix purpurea* - Habit



*Salix purpurea* - Leaves



*Salix purpurea* - Leaves



Salix purpurea leaves2



Salix purpurea 'Streamco' - Habit



Salix purpurea 'Pendula' - Habit



Ethan M. Dropkin

*Salix purpurea* twig



*Salix purpurea* - Habit



## Species: *Syringa reticulata*

(si-ring'gah reh-tick'you-lay-tah)

### Japanese Tree Lilac

#### Cultivar Information

\* See specific cultivar notes on next page.

#### Ornamental Characteristics

Size: Tree < 30 feet

Height: 25' - 30' (spread 15' - 25')

Leaves: Deciduous

Shape: oval tree

Ornamental Other: slow growing

#### Environmental Characteristics

Light: Full sun

Hardy To Zone: 3a

Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)

Salt Tolerance: Tolerates salty soil

Environmental Other: large, cream colored flowers in late June; suitable for large containers; lustrous brown bark with horizontal lenticels similar to cherry bark; slow growth rate

CU Structural Soil™: Yes

#### Insect Disease

resistant to powdery mildew; borers and scale may be problematic in warmer regions

#### Bare Root Transplanting

Easy

## Other

transplant in spring or fall, native to Northern Japan

## Cultivars for *Syringa reticulata*

Showing **1-7** of 7 items.

Cultivar Name	Notes
Summer Snow	'Summer Snow' - round, compact, 16', heavy flowering
Chantilly Lace	'Chantilly Lace' - leaves variegated with a pale creamy yellow perimeter
Cameo Jewel	'Cameo Jewel' - variegated form with yellow-cream splashed foliage
Ivory Silk	'Ivory Silk' - rounded form; stocky branch structure; blooms heavily, even when young; grows to 25' tall
Snowdance	'Snowdance' (a.k.a. 'Bailnce') - heavy blooming; flowers annually and begins flowering at an earlier age than the species; large, fragrant panicles of creamy white blooms; sterile variety produces no untidy, brown seedheads; lustrous, dark green foliage is slightly larger and darker than species
Snow Cap	'Snow Cap' (a.k.a. 'Elliott') - round compact form; uniform habit; freely blooming; large, fragrant, creamy-white flowers; grows to 15'-20' tall x 10'-12' wide in 10 years
Regent	'Regent' - canopy grows more narrowly than other <i>S. reticulata</i> selections; grows vigorously; produces abundant white flower clusters in summer; grows 25 - 30' tall x 15' wide

## Photos



*Syringa reticulata* - Bark



*Syringa reticulata* - Flowers



*Syringa reticulata* - Flowers



*Syringa reticulata* - Leaves, Fruit



*Syringa reticulata* - Habit



*Syringa reticulata* - Leaf



*Syringa reticulata* - Habit



Photo: L. Wo

Syringa reticulata - Fruit



Syringa reticulata - Buds



## Species: *Tilia americana*

(til'ee-ah a-mer-i-kay'nah)

American Linden; Basswood

### Cultivar Information

\* See specific cultivar notes on next page.

### Ornamental Characteristics

Size: Tree > 30 feet

Height: 60' - 80'

Leaves: Deciduous

Shape: pyramidal

Ornamental Other:

### Environmental Characteristics

Light: Full sun

Hardy To Zone: 3a

Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)

CU Structural Soil™: Yes

### Insect Disease

Very susceptible to Japanese beetles, mites, aphids, borers; leaf miners and scale may also be problematic

### Bare Root Transplanting

Easy

### Other

native to U.S.; transplant in spring or fall

## Cultivars for *Tilia americana*

Showing **1-8** of **8** items.

Cultivar Name	Notes
Boulevard	'Boulevard' - narrow pyramidal, yellow fall color
Fastigiata	'Fastigiata' - columnar to pyramidal form
Legend	'Legend' - hybrid between <i>T. americana</i> x <i>T. x euchlora</i> ; pyramidal form
Redmond	'Redmond' - hybrid between <i>T. americana</i> x <i>T. x euchlora</i> ; grows to pyramidal
Sentry	'Sentry' (a.k.a. 'American Sentry') - consistently upright pyramidal form; fragrant yellow flowers; dark green foliage; strong central leader; may experience insect problems; grows to 60' tall x 35' wide
Continental Appeal	'Continental Appeal' - upright narrow oval to pyramidal form; medium green foliage with white undersides; fast growing; grows to 50' tall x 28' wide
Lincoln	'Lincoln' - pyramidal, compact, dense form; dark green foliage; grows to 35' tall x 25' wide
Duros	'Duros' - round, upright, narrow form; green foliage; whitish bark; grows to 40-50' tall x 10-20' wide

## Photos



*Tilia americana* - Bark



*Tilia americana* - Buds



*Tilia americana* - Leaf



*Tilia americana* - Leaves



*Tilia americana* - Habit



*Tilia americana* - Leaves, Suckers



*Tilia americana* - Habit



*Tilia americana* - Buds



*Tilia americana* - Fruit



## Species: *Tilia cordata*

(til'ee-ah kore-day'tah)

Littleleaf Linden; Small-leaved Lime

### Cultivar Information

There are many cultivars of this commonly used species.

\* See specific cultivar notes on next page.

### Ornamental Characteristics

Size: Tree > 30 feet

Height: 60' - 80'

Leaves: Deciduous

Shape: dense, pyramidal

Ornamental Other:

### Environmental Characteristics

Light: Full sun

Hardy To Zone: 3b

Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)

CU Structural Soil™: Yes

### Insect Disease

highly susceptible to aphids and Japanese beetles especially the cultivar, 'Greenspire'

### Bare Root Transplanting

Easy

### Other

native to Europe; transplant in spring or fall

## Cultivars for *Tilia cordata*

Showing **1-16** of **16** items.

Cultivar Name	Notes
Chancellor	'Chancellor' (a.k.a. 'Chancole') - narrow upright habit; grows to 50' tall and only 20' wide; wide crotch angles make the tree resistant to breaking during storms; drought tolerant
Corinthian	'Corinthian' (a.k.a. 'Corzam') - uniform pyramidal habit; lateral branches arranged uniformly around a strong central leader; glossy dark green leaves; grows to 45' tall x 15' wide
Glenleven	'Glenleven' - open symmetrical form; a <i>T. x flavescens</i> selection; larger leaves than normal; grows to 50' tall and 35' wide. Faster growing than <i>T. cordata</i>
Greenspire	'Greenspire' - broad pyramidal form; vigorous grower; readily available; grows to 50' tall x 35' wide; uniform branching; dark green leaves; exceptional tolerance for difficult conditions
Olympic	'Olympic' - broadly pyramidal, better branching
Rancho	'Rancho' - upright; vigorous; partially resistant to Japanese beetle
Shamrock	'Shamrock' (a.k.a. 'Baileyi') - broad-conical habit; thicker, less profuse branches creating a more open crown; glossy medium green foliage; faster growing; grows to 50' tall x 30' wide
Green Globe	'Green Globe' - "lollipop on a stick", dwarf form, the crown is a tight, compact ball of foliage; usually grafted; grows to 15' in height
Lico	'Lico' - "lollipop on a stick", dwarf form, the crown is a tight, compact ball of foliage; usually grafted; grows to 15' in height
De Groot	'De Groot' - compact habit; less suckering than most Linden varieties; grows to 30' tall x 20' wide
Fire-cracker	'Fire-cracker' - pyramidal form; produces leaves later than most (important in some situations for solar exposure); notable yellow fall color; grows to 40' tall x 30' wide
Summer Sprite	'Summer Sprite' (a.k.a. 'Halka') semi-dwarf, upright, oval rounded pyramidal form; grows to 20' tall x 15' wide
Harvest Gold	'Harvest Gold' - a hybrid between <i>T. cordata</i> and <i>T. mongolica</i> ; upright form as a young tree, becoming rounded with age; moderate growth rate; no serious disease or pest problems, though gypsy moth caterpillars and Japanese beetles will sometimes feed on the foliage, leaves are resistant to mites and fungal leaf spot; tolerant of cold; better fall color
Winter Orange	'Winter Orange' - stems are orange in winter with bright pink buds; otherwise similar to species
Pendula Nana	'Pendula Nana' - semi-dwarf, weeping, rounded, compact shrub; grows to 6' wide with a slightly smaller spread; slow growing; dark green foliage
Streetwise	'Streetwise' - improved form; fast-growing; neat form, strong central leader, well balanced head

## Photos



*Tilia cordata* - Flowers



*Tilia cordata* - Flowers



*Tilia cordata* - Fruit



*Tilia cordata* - Bark



*Tilia cordata* - Bud



*Tilia cordata* - Buds



*Tilia cordata* - Habit



*Tilia cordata* 'Glenleven' - Habit



*Tilia cordata* - Leaf



## Species: *Tilia tomentosa*

(til'ee-ah toe-men-tose'ah)

### Silver Linden

#### Cultivar Information

A few cultivars are available for this superior species and it is likely that more will be developed in the future. Several cultivars available in Europe are not yet found in the US.

\* See specific cultivar notes on next page.

#### Ornamental Characteristics

Size: Tree > 30 feet

Height: 60' - 80'

Leaves: Deciduous

Shape: pyramidal

Ornamental Other:

#### Environmental Characteristics

Light: Full sun

Hardy To Zone: 5a

Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)

Environmental Other: tolerates drought and heat better than *T. cordata*

CU Structural Soil™: Yes

#### Insect Disease

less susceptible to Japanese beetles than other lindens

#### Bare Root Transplanting

Difficult

## Other

native to southeastern Europe, western Asia; transplant in spring; slower to recover from transplanting than other lindens

Cultivars for *Tilia tomentosa*

Showing **1-7** of 7 items.

Cultivar Name	Notes
Sterling Silver	'Sterling Silver' - vigorous grower; resistant to Japanese beetles
Green Mountain	'Green Mountain' - symmetrical; dense canopy
Sashazam	'Satin Shadow' (a.k.a. 'Sashazam') - symmetrical, reportedly resistant to Japanese Beetles
Brabant	'Brabant' - uniform, dense upright habit developing a dense, broadly-conical crown; aphid resistant
Chelsea Sentinel	'Chelsea Sentinel' - weeping columnar habit; delicate leaves, silver underneath produced on long stems; free from aphids; grows to 30' tall x 15' wide
Hungary Globe	'Hungary Globe' - semi-dwarf, globe form; grafted on a standard trunk; grows to 9' - 18' tall
Petiolaris	'Petiolaris' - longer leaf petioles (4-8 cm long) and drooping leaves; usually sterile; may be a hybrid with another Tilia species

## Photos



*Tilia tomentosa* - Bark



*Tilia tomentosa* - Leaf



*Tilia tomentosa* - Fruit



Ethan M. Dropkin

Tilia tomentosa - Buds



Tilia tomentosa - Habit



Tilia tomentosa - Habit



*Tilia tomentosa* - Habit



*Tilia tomentosa* - Leaves



## Species: *Tilia x euchlora*

(til'ee-ah you-klor'ah)

### Crimean Linden

#### Cultivar Information

\* See specific cultivar notes on next page.

#### Ornamental Characteristics

Size: Tree > 30 feet

Height: 50'

Leaves: Deciduous

Shape: round; branches skirt the ground

Ornamental Other: Reported to be more drought tolerant than *T. cordata*

#### Environmental Characteristics

Light: Full sun

Hardy To Zone: 5a

Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)

Environmental Other: vigorous compact growth; basal suckering on grafted trees; lustrous dark green leaves

CU Structural Soil™: Yes

#### Insect Disease

more resistant to aphids than *T. cordata*

#### Bare Root Transplanting

Easy

#### Other

transplant in spring or fall; parentage: *T. cordata* x *T. dasystyla*

## Cultivars for *Tilia x euchlora*

Showing **1-1** of **1** item.

Cultivar Name	Notes
Laurelhurst	'Laurelhurst' - compact; pyramidal; straight trunk

## Photos



Tilia x euchlora - Leaves, Fruit



Tilia x euchlora - Leaves



*Tilia x euchlora* - Bark



*Tilia x euchlora* - Leaves, Fall Interest



*Tilia x euchlora* - Habit



*Tilia x euchlora* - Habit



*Tilia x euchlora* - Bark



Tilia x euchlora - Leaf



Tilia x euchlora - Habit



## Species: *Ulmus* 'Accolade'

Hybrid Elm 'Accolade'

### Ornamental Characteristics

Size: Tree > 30 feet

Height:

Leaves: Deciduous

Shape: Vase-shaped, arching, American Elm-like glossy

Ornamental Other:

### Environmental Characteristics

Light: Full sun

Hardy To Zone: 4b

Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)

Salt Tolerance: Tolerates salty soil

Environmental Other: fast growing

CU Structural Soil™: Yes

### Insect Disease

Reportedly resistant to Elm Yellows, resistant to Elm Leaf Beetle

### Bare Root Transplanting

Easy

### Other

Parentage: *U. japonica* x *U. wilsoniana*

## Photos



Ulmus 'Accolade' - Habit



Ulmus 'Accolade' - Habit



Ulmus 'Accolade' - Habit



## Species: *Ulmus* 'Frontier'

Hybrid Elm 'Frontier'

### Ornamental Characteristics

Size: Tree > 30 feet

Height: 40' height, 30' spread

Leaves: Deciduous

Shape: Broadly oval

Ornamental Other:

### Environmental Characteristics

Light: Full sun

Hardy To Zone: 5a

Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)

Salt Tolerance: Tolerates salty soil

CU Structural Soil™: Yes

### Insect Disease

Good resistance to Dutch elm disease and elm yellows (phloem necrosis); moderately resistant to elm leaf beetles.

### Bare Root Transplanting

Difficult

### Other

Parentage: *U. carpinifolia* with *U. parvifolia*

## Photos



Ulmus 'Frontier' - Habit



Ulmus 'Frontier' - Leaves, Fall Interest



Ulmus 'Frontier' - Habit, Fall Interest



Ulmus 'Frontier' - Leaves, Fall Interest



## Species: *Ulmus americana*

(ul'mus a-mer-i-kay'nah)

### American Elm

#### Cultivar Information

Much selection has been attempted for dutch elm disease resistant varieties of this long-prized native street/shade tree. Below are the best of the few resistant cultivars that have been yet discovered, however Elm Yellows is still a significant pest.

\* See specific cultivar notes on next page.

#### Ornamental Characteristics

Size: Tree > 30 feet

Height: 60' - 80' (30' - 50' spread)

Leaves: Deciduous

Shape: majestic, upright-spreading

Ornamental Other: withstands extreme cold

#### Environmental Characteristics

Light: Full sun

Hardy To Zone: 3a

Soil Ph: Any

Salt Tolerance: Tolerates salty soil

Environmental Other: withstands extreme cold

CU Structural Soil™: Yes

#### Insect Disease

susceptible to many pests, particularly dutch elm diseases, elm yellows, verticillium

#### Bare Root Transplanting

Easy

## Other

easy to transplant; fast growth, native to Eastern and Mid-West N. America

## Cultivars for *Ulmus americana*

Showing **1-7** of **7** items.

Cultivar Name	Notes
New Harmony	'New Harmony' - less resistant to dutch elm disease than 'Valley Forge.' Vase shape with arching limbs.
Valley Forge	'Valley Forge' - resistant to dutch elm disease
Independence	'Independence' - a hybrid created from a cross of <i>Ulmus americana</i> 'Moline' and <i>Ulmus americana</i> W 185-21; it is one of six clones that comprise the much-heralded 'American Liberty' multi-clone variety; develops an upright, vase-shaped crown typical of the species; has demonstrated tolerance to DED, but may be quite susceptible to elm yellows (a relatively rare disease in the Midwest)
Jefferson	Vase shape with arching limbs, yellow fall color. Original tree grows on the National Mall in Washington D.C.
Prairie Expedition	Extremely cold hardy, this cultivar descends from a lone survivor of Dutch Elm disease found in North Dakota. Has a broader, more rounded and spreading vase shape
Princeton	Very upright, vase form
Colonial Spirit	Tolerant of Dutch Elm disease. Reportedly has classic American elm form.

## Photos



*Ulmus americana* - Leaves



*Ulmus americana* - Habit



*Ulmus americana* - Habit, Fall Interest



*Ulmus americana* - Leaves



Ulmus americana - Habit



Ulmus americana - Buds



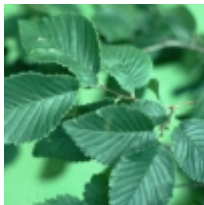
Ulmus americana - Leaves



*Ulmus americana* - Leaves



*Ulmus americana* - Bark



## Species: *Ulmus carpinifolia*

(ul'mus car-pine-ih-fo'lee-ah)

### Smooth-leaf Elm

#### Cultivar Information

Many pest and disease resistant cultivars exist for this species and are listed below.

\* See specific cultivar notes on next page.

#### Ornamental Characteristics

Size: Tree > 30 feet

Height: 70' - 90'

Leaves: Deciduous

Shape: pyramidal - oval

Ornamental Other: tolerates wet soil or drought

#### Environmental Characteristics

Light: Full sun

Hardy To Zone: 5b

Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)

Salt Tolerance: Tolerates salty soil

Environmental Other: lustrous green leaves turn limited yellow fall color

#### Insect Disease

less susceptible to dutch elm disease than *U.americana*; susceptible to elm leaf beetle and many more

#### Bare Root Transplanting

Any

## Other

easily transplanted, native to Europe

## Cultivars for *Ulmus carpinifolia*

Showing **1-10** of **10** items.

Cultivar Name	Notes
Accolade	'Accolade' - good resistance to dutch elm disease
Homestead	'Homestead' - resistant to dutch elm disease and phloem necrosis
Patriot	'Patriot' - dutch elm disease resistant; vase-shaped
Prospector	'Prospector' - resistant to dutch elm disease, elm leaf beetle
Danada Charm	'Danada Charm' - elm shape, dutch elm disease resistant
Christine Buisman	'Christine Buisman' - resistant to dutch elm disease, broadly erect form
Sapporo Autumn Gold	'Sapporo Autumn Gold' - upright vase-shape; resistant to aggressive dutch elm disease
Umbraculifera	'Umbraculifera' - compact and globose
Urban	'Urban' - resistant to dutch elm disease, tolerant of urban conditions
Regal	'Regal' - dutch elm disease resistant; open habit

## Photos



*Ulmus carpinifolia* - Leaves



*Ulmus carpinifolia* - Habit



*Ulmus carpinifolia* - Habit



*Ulmus carpinifolia* 'Regal' - Habit



*Ulmus carpinifolia* 'Regal' - Habit



*Ulmus carpinifolia* 'Sapporo Autumn Gold' - Habit



*Ulmus carpinifolia* 'Sapporo Autumn Gold' - Habit



*Ulmus carpinifolia* 'Sapporo Autumn Gold' - Leaves, Fall Interest



*Ulmus carpinifolia* 'Urban' - Habit



## Species: *Ulmus glabra*

(ul'mus glä'brä)

Scotch Elm; Wych Elm

### Cultivar Information

Several cultivars of this species are available in Europe but due its invasive nature here only a few are available in the U.S. The two below are commonly found in the trade.

\* See specific cultivar notes on next page.

### Ornamental Characteristics

Size: Tree > 30 feet

Height: 80'-100' H; 50'-70' W

Leaves: Deciduous

Shape: Large, massive, open

Ornamental Other:

### Environmental Characteristics

Light: Full sun

Hardy To Zone: 4b

Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)

### Insect Disease

No diseases listed

### Bare Root Transplanting

Any

## Cultivars for *Ulmus glabra*

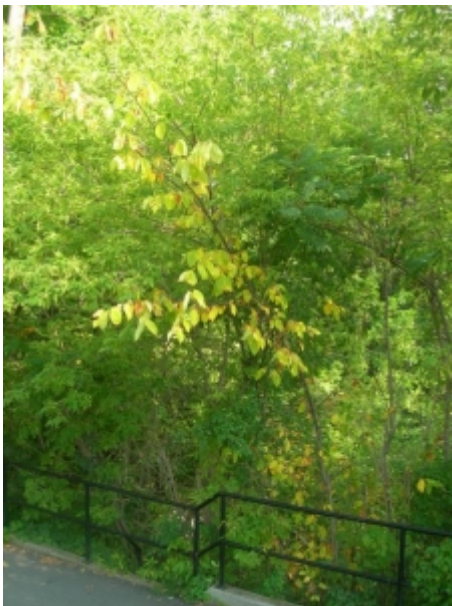
Showing **1-2** of **2** items.

Cultivar Name	Notes
Camperdownii	'Camperdownii' (a.k.a. 'Camperdown')- round-headed, pendulous-branched form; grows 15' - 25' tall
Pendula	'Pendula' (a.k.a. Horizontalis) - flat-topped, horizontal branches and pendulous branchlets

## Photos



*Ulmus glabra* - Bark, Leaves, Fall Interest



*Ulmus glabra* - Habit



*Ulmus glabra* - Habit



*Ulmus glabra* - Leaves



Ulmus glabra - Leaves, Fall Interest



Ulmus glabra - Leaves



Ulmus glabra - Bud



*Ulmus glabra* 'Camperdown'



## Species: *Ulmus parvifolia*

(ul'mus par-vi-fo'lee-ah)

Chinese Elm; Lacebark Elm

### Cultivar Information

Many cultivars of this species exist. The straight species has variable bark and pest/disease resistance. A new group of cultivars with good resistance to Dutch Elm disease, elm leaf beetle and elm yellows are becoming available.

Check winter hardiness of individual cultivars.

\* See specific cultivar notes on next page.

### Ornamental Characteristics

Size: Tree > 30 feet

Height: 40' - 75'

Leaves: Deciduous

Shape: round, vase

Ornamental Other:

### Environmental Characteristics

Light: Full sun

Hardy To Zone: 5b

Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)

Salt Tolerance: Tolerates salty soil

Environmental Other: leathery dark green leaves; gray/green/brown/orange exfoliating bark

CU Structural Soil™: Yes

### Insect Disease

resistant to Dutch Elm disease, elm yellows and other insect problems

## Bare Root Transplanting

Difficult

## Other

transplant in spring or fall, native to China, Japan and Korea

Cultivars for *Ulmus parvifolia*Showing **1-13** of **13** items.

Cultivar Name	Notes
Ohio	'Ohio' - moderately vase-shaped form; grows to 40' high and wide; looser and more open than most varieties; foliage turns dull red in autumn; samarae are reddish in color as well; good resistance to Dutch Elm disease, elm leaf beetle and elm yellows
Dynasty	'Dynasty' -vase-shaped, upright form; inferior bark to the other cultivars; fall color can be red; good resistance to Dutch Elm disease, elm leaf beetle and elm yellows
King's Choice	'King's Choice' - early winter hardy selection; good resistance to Dutch Elm disease, elm leaf beetle and elm yellows
Central Park Splendor	'Central Park Splendor' (a.k.a 'A. Ross Central Park', 'Aross/Central Park') - broadly-spreading form; selected from a tree growing in New York's Central Park for 100 years; thick, leathery deep green leaves turn yellow in fall; bark and fall color less showy than other cultivars; grows to 60' tall x 40' wide
Burgundy	'Burgundy' - new selection that has not been cultivation long enough to develop data on habit; heavy, dark green leaves turn reddish in fall; grows quickly; shows good peeling bark character
Drake	'Drake' (a.k.a. 'Brea') - not hardy north of USDA zone 7; semi-evergreen character
Emerald Isle	'Emerald Isle' (a.k.a. 'Athena', 'Emer I') - rounded form; drought tolerance; superior dark green foliage; inferior fall color; superior bark with orange lenticels; grows to 40' tall x 60' wide; good resistance to Dutch Elm disease, elm leaf beetle and elm yellows
Emerald Vase	'Emerald Vase' (a.k.a. 'Emer II', Allee) - upright-spreading vase shaped form; grows to 70' tall x 60' wide; fluted trunk; superior bark; high quality foliage turns yellow in autumn; drought tolerant; good resistance to Dutch Elm disease, elm leaf beetle and elm yellows
Golden Ray	'Golden Ray' (a.k.a. 'Golden Rey', 'Aurea') - upright-rounded form; light yellow young leaves that appear to deepen with age; superior bark; grows to 60' tall x 40' wide
Caitlin	'Caitlin' (a.k.a. 'Kaitlin') - miniature tree form; not as hardy as other cultivars; exfoliating bark; grows to 15' tall; other dwarf forms exist including 'Hokkaido', 'Stone's Dwarf', and 'Frosty' (variegated foliage)

Cultivar Name	Notes
Prairie Shade	'Prairie Shade' - upright-spreading form; although the plant is so new that no mature trees exist; good quality, heavy, dark green foliage; does not develop the peeling bark; susceptible to fungal disease; inferior to other forms
Allee	Tall, upright vase shape with arching branches. Reminiscent of the American Elm's shape. Disease tolerance: Dutch elm and phloem necrosis
Emerald Flair	Upright vase, red to orange-red fall color. Disease tolerance: Dutch Elm and phloem necrosis

## Photos





*Ulmus parvifolia* - Bark



*Ulmus parvifolia* - Bark



*Ulmus parvifolia* - Buds



*Ulmus parvifolia* - Habit



*Ulmus parvifolia* - Leaves, Seeds



*Ulmus parvifolia* - Habit



*Ulmus parvifolia* - Seeds



## Species: *Ulmus pumila*

(ul'mus pue'mi-lah)

Dwarf Asiatic Elm: Siberian Elm

### Cultivar Information

\* See specific cultivar notes on next page.

### Ornamental Characteristics

Size: Tree > 30 feet

Height: 50' - 70' (spread 40' - 50')

Leaves: Deciduous

Shape: open

Ornamental Other:

### Environmental Characteristics

Light: Full sun

Hardy To Zone: 4a

Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)

Salt Tolerance: Tolerates salty soil

Environmental Other: fast growth, poor form; susceptible to wood breakage; a poor choice except for difficult sites

### Insect Disease

very susceptible to elm leaf beetle; wood is brittle and breaks easily

### Bare Root Transplanting

Any

### Other

Native to Siberia, China, Korea

## Cultivars for *Ulmus pumila*

Showing **1-7** of 7 items.

Cultivar Name	Notes
Coolshade	'Coolshade' - resistant to breakage
Dropmore	'Dropmore' - fast-growing; small foliage
Hamburg Hybrid	'Hamburg Hybrid' - stronger wooded
Improved Cascade	'Improved Cascade' - hardy; resistant to breakage
Lincoln	'Lincoln' - dark green leaves; resistant to dutch elm disease
Mr. Buzz	'Mr. Buzz' - dense growth; vigorous
Pendula	'Pendula' - pendulous branches

## Photos



*Ulmus pumila* - Leaves



*Ulmus pumila* - Habit



*Ulmus pumila* - Leaves



## Species: *Zelkova serrata*

(zel-koe'vah ser-ray'tah)

Japanese Zelkova; Saw-leaf Zelkova; Keaki Tree

### Cultivar Information

Mostly tall trees except '**Schmidtlow**' ( Wireless) and '**City Sprite**', which are <30.'

\* See specific cultivar notes on next page.

### Ornamental Characteristics

Size: Tree > 30 feet, Tree < 30 feet

Height: 60' - 80', some cultivars <30'

Leaves: Deciduous

Shape: vase

Ornamental Other:

### Environmental Characteristics

Light: Full sun

Hardy To Zone: 5b

Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)

Environmental Other: narrow crotch angles and poor branch attachment can cause splitting when older; dark green leaves turn yellow, bronze or reddish purple; cherrylike bark becomes gray and exfoliating when mature

CU Structural Soil™: Yes

### Insect Disease

No diseases listed

### Bare Root Transplanting

Moderately difficult

## Other

transplant in spring, native to Japan, Korea, Northern China, Taiwan

## Cultivars for *Zelkova serrata*

Showing **1-9** of **9** items.

Cultivar Name	Notes
Green Vase	'Green Vase' - upright vase; fast grower; golden-orange fall color
Halka	'Halka' - upright vase-like form; most elm-like; better branch attachment; yellow fall color
Village Green	'Village Green' - vase; shorter than other cultivars; fast grower; rusty red fall color
Musashino Columnar	'Musashino:' narrow, upright vase form
Wireless	'Schmidtlow' (a.k.a. 'Wireless') - Broadly vase-shaped form; grows to 30' tall. Has a lower height and broader shape making it an appealing shape for planting under utility wires. Red fall color.
City Sprite	'City Sprite' (a.k.a. 'JES-KW1') - oval to vase-shaped form; grows to 30' tall. Compact, dense and semi dwarf. Tidy growth habit makes it appealing for street/urban sites.
Goshiki	'Goshiki' - variegated form, leaves splashed or dusted with creamy white
Variegata	'Variegata' - variegated form with white rimmed leaves; weak grower
Spring Grove	'Spring Grove' - vase-shaped, tight branching form; a rival for 'Village Green'; ornamentally superior; dark green leaves with red fall color; attractive peeling bark; grows to 80' tall x 60' wide

## Photos



*Zelkova serrata* - Fruit



*Zelkova serrata* - Bark



*Zelkova serrata* - Leaves, Fall Interest



*Zelkova serrata* - Habit



Zelkova serrata - Habit



Zelkova serrata - Leaf



Zelkova serrata - Fruit



*Zelkova serrata* - Habit



*Zelkova serrata* - Leaves