Small trees suitable for city environment plantings under low overhead utility wires or in restricted spaces
Species: *Acer buergerianum*
(ay'ser ber-jer-ee-ay'num)
Trident Maple

**Cultivar Information**

* See specific cultivar notes on next page.

<table>
<thead>
<tr>
<th>Ornamental Characteristics</th>
<th>Environmental Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size: Tree &lt; 30 feet</td>
<td>Light: Full sun</td>
</tr>
<tr>
<td>Height: 20' - 25'</td>
<td>Hardy To Zone: 6a</td>
</tr>
<tr>
<td>Leaves: Deciduous</td>
<td>Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)</td>
</tr>
<tr>
<td>Shape: round</td>
<td>Salt Tolerance: Tolerates salty soil</td>
</tr>
<tr>
<td>Ornamental Other: tolerates moderate drought</td>
<td>Environmental Other:</td>
</tr>
</tbody>
</table>

**Insect Disease**

none serious

**Bare Root Transplanting**

Any

**Other**

transplant in spring or fall, native to China

**Moisture Tolerance**

<table>
<thead>
<tr>
<th>Moisture Tolerance</th>
<th>VERY WET</th>
<th>VERY DRY</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occasionally saturated or very wet soil</td>
<td>1 2 3</td>
<td>4 5 6</td>
</tr>
<tr>
<td>Consistently moist, well-drained soil</td>
<td>4 5 6</td>
<td>7 8 9</td>
</tr>
<tr>
<td>Occasional periods of dry soil</td>
<td>7 8 9</td>
<td>10 11 12</td>
</tr>
<tr>
<td>Prolonged periods of dry soil</td>
<td>10 11 12</td>
<td></td>
</tr>
</tbody>
</table>
Cultivars for *Acer buergerianum*

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

<table>
<thead>
<tr>
<th>Cultivar Name</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Aeryn</td>
<td>yellow and light orange fall color; exfoliating bark; 35-40' tall by 30' wide</td>
</tr>
<tr>
<td>Street Wise</td>
<td>easily trained to single leader, new growth emerges reddish purple</td>
</tr>
</tbody>
</table>
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, 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.

### Moisture Tolerance

<table>
<thead>
<tr>
<th>1</th>
<th>2</th>
<th>3</th>
<th>4</th>
<th>5</th>
<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Occasionally saturated or very wet soil</strong></td>
<td><strong>Consistently moist, well-drained soil</strong></td>
<td><strong>Occasional periods of dry soil</strong></td>
<td><strong>Prolonged periods of dry soil</strong></td>
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</tr>
</tbody>
</table>

**VERY WET**

**VERY DRY**
## Cultivars for *Acer campestre*

Showing 1-17 of 17 items.

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

Acer campestre - Habit, Fall Interest

Acer campestre - Leaves

Acer campestre - Habit

Acer campestre - Habit

Acer campestre - Habit

Acer campestre - Buds

Acer campestre - Leaves
**Species: Acer miyabei**

(ay'ser mi-YA-bee-eye)

Miyabe Maple

### Cultivar Information

* See specific cultivar notes on next page.

<table>
<thead>
<tr>
<th>Ornamental Characteristics</th>
<th>Environmental Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size: Tree &gt; 30 feet, Tree &lt; 30 feet</td>
<td>Light: Full sun, Part shade</td>
</tr>
<tr>
<td>Height: 35'-45', Width: 30'</td>
<td>Hardy To Zone: 5a</td>
</tr>
<tr>
<td>Leaves: Deciduous</td>
<td>Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)</td>
</tr>
<tr>
<td>Shape: upright oval to rounded, can have open or dense branching, low branching</td>
<td>CU Structural Soil™: Yes</td>
</tr>
</tbody>
</table>
| Ornamental Other: prefers full sun, tolerates partial shade | Insect Disease

none of significance

<table>
<thead>
<tr>
<th>Bare Root Transplanting</th>
</tr>
</thead>
<tbody>
<tr>
<td>Easy</td>
</tr>
</tbody>
</table>

### Other

easy to transplant B&B or < 2½" caliper bare root

<table>
<thead>
<tr>
<th>Moisture Tolerance</th>
</tr>
</thead>
</table>

**MOISTURE TOLERANCE**

<table>
<thead>
<tr>
<th>Very Wet</th>
<th>Very Dry</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occasionally saturated or very wet soil</td>
<td>Consistently moist, well-drained soil</td>
</tr>
<tr>
<td>Occasionally saturated or very wet soil</td>
<td>Occasional periods of dry soil</td>
</tr>
<tr>
<td>Prolonged periods of dry soil</td>
<td>Prolonged periods of dry soil</td>
</tr>
<tr>
<td>1</td>
<td>2</td>
</tr>
</tbody>
</table>
Cultivars for *Acer miyabei*

Showing 1-2 of 2 items.

<table>
<thead>
<tr>
<th>Cultivar Name</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rugged Ridge</td>
<td>'Rugged Ridge' - more deeply furrowed corky bark than species</td>
</tr>
<tr>
<td>State Street</td>
<td>'State Street' (a.k.a. Morton) - hardy to zone 4; upright oval form; good uniform branching; dark green foliage; good golden yellow fall color; possibly fast growing</td>
</tr>
</tbody>
</table>
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.

<table>
<thead>
<tr>
<th>Ornamental Characteristics</th>
<th>Environmental Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Size:</strong> Tree &gt; 30 feet, Tree &lt; 30 feet</td>
<td>Light: Full sun</td>
</tr>
<tr>
<td><strong>Height:</strong> 60' - 75' (spread variable), some cultivars less than 30'</td>
<td>Hardy To Zone: 3b</td>
</tr>
<tr>
<td><strong>Leaves:</strong> Deciduous</td>
<td>Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)</td>
</tr>
<tr>
<td><strong>Shape:</strong> upright oval to mounded; dense foliage</td>
<td>Environmental Other: Intolerant of compacted soil and urban stresses.</td>
</tr>
<tr>
<td><strong>Ornamental Other:</strong></td>
<td></td>
</tr>
</tbody>
</table>

**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

**Moisture Tolerance**

<table>
<thead>
<tr>
<th>Moisture Tolerance</th>
<th>1</th>
<th>2</th>
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<th>12</th>
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</thead>
<tbody>
<tr>
<td>Occasionally saturated or very wet soil</td>
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<tr>
<td>Occasional periods of dry soil</td>
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<tr>
<td>Prolonged periods of dry soil</td>
<td>10</td>
<td>11</td>
<td>12</td>
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</tr>
</tbody>
</table>
Cultivars for *Acer saccharum*

Showing 1-14 of 14 items.

<table>
<thead>
<tr>
<th>Cultivar Name</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adirondak</td>
<td>'Adirondak' (a.k.a.'Adizam') - columnar; turns Golden-Orange and holds late</td>
</tr>
<tr>
<td>Bonfire</td>
<td>'Bonfire' - broadly oval, vigorous, bright orange fall foliage</td>
</tr>
<tr>
<td>Commemoration</td>
<td>'Commemoration' - oval form; orange-gold in fall; leaves slow to drop</td>
</tr>
<tr>
<td>Endowment</td>
<td>'Endowment' - columnar form; bright yellow fall color</td>
</tr>
<tr>
<td>Goldspire</td>
<td>'Goldspire' - narrowly pyramidal; foliage turns golden in fall</td>
</tr>
<tr>
<td>Legacy</td>
<td>'Legacy' - glossy, thick leaves; drought resistant</td>
</tr>
<tr>
<td>Majesty</td>
<td>'Majesty' - large thick leaves; thick branching structure</td>
</tr>
<tr>
<td>Seneca Chief</td>
<td>'Seneca Chief' - Muscle like bark</td>
</tr>
<tr>
<td>Sugar Cone</td>
<td>'Sugar Cone' slow growing, dwarf (&lt;30') with tight conical canopy, looks like a cartoon-tree when mature</td>
</tr>
<tr>
<td>Apollo</td>
<td>'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</td>
</tr>
<tr>
<td>Autumn Fest</td>
<td>'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</td>
</tr>
<tr>
<td>Belle Tower</td>
<td>'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</td>
</tr>
<tr>
<td>Flashfire</td>
<td>'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</td>
</tr>
<tr>
<td>Green Mountain</td>
<td>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.</td>
</tr>
</tbody>
</table>
Photos

Acer saccharum 'Sugar Cone'

Acer saccharum - Flowers

Acer saccharum - Bark

Acer saccharum - Habit, Fall Interest

Acer saccharum - Leaf

Acer saccharum - Habit

Acer saccharum - Buds

Acer saccharum - Habit

Acer saccharum - Leaves, Bark
Species: *Acer tataricum ssp. ginnala*
(ay'ser tah-ta-ri'cum ssp. gi-nay'lah)
Amur Maple

**Cultivar Information**

* See specific cultivar notes on next page.

<table>
<thead>
<tr>
<th><strong>Ornamental Characteristics</strong></th>
<th><strong>Environmental Characteristics</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Size: Tree &lt; 30 feet</td>
<td>Light: Full sun, Part shade</td>
</tr>
<tr>
<td>Height: 15' - 18' (equal spread)</td>
<td>Hardy To Zone: 3a</td>
</tr>
<tr>
<td>Leaves: Deciduous</td>
<td>Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)</td>
</tr>
<tr>
<td>Shape: multi-stem large shrub or small tree; often rounded</td>
<td>Salt Tolerance: Tolerates salty soil</td>
</tr>
<tr>
<td>Ornamental Other: One of the most adaptable and cold-hardy maples. Grows in full sun or light shade. Known to naturalize or become problematically invasive in some areas.</td>
<td>Environmental Other: fragrant, creamy white flowers in April/May; wings of fruit turn red in Aug/Sept; leaves turn from rich dark green to excellent shades of yellow, orange and red</td>
</tr>
</tbody>
</table>

**Insect Disease**

relatively free of problems; occasionally verticillium wilt, bacterial blight, or other maple diseases and insects

**Bare Root Transplanting**

Easy

**Other**

limb up to expose smooth gray bark for an artistic, sculptural landscape effect. Invasive in the Northeast

**Moisture Tolerance**

<table>
<thead>
<tr>
<th>Moisture Tolerance</th>
<th>1</th>
<th>2</th>
<th>3</th>
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<th>6</th>
<th>7</th>
<th>8</th>
<th>9</th>
<th>10</th>
<th>11</th>
<th>12</th>
</tr>
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</tbody>
</table>

*Section 2.1 - Page 14*
### Cultivars for Acer tataricum ssp. ginnala

Showing 1-9 of 9 items.

<table>
<thead>
<tr>
<th>Cultivar Name</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Durand Dwarf</td>
<td>'Durand Dwarf' - dwarf, shrubby</td>
</tr>
<tr>
<td>Embers</td>
<td>'Embers' - bright red fruits and fall color</td>
</tr>
<tr>
<td>Emerald Elf</td>
<td>'Emerald Elf' - compact, rounded, slow-growing</td>
</tr>
<tr>
<td>Flame</td>
<td>'Flame' - red fruits and fiery red fall color</td>
</tr>
<tr>
<td>Red Fruit</td>
<td>'Red Fruit' - brilliant red fruit</td>
</tr>
<tr>
<td>Red Rhapsody</td>
<td>'Red Rhapsody' (a.k.a. 'Mandy') - lustrous dark leaves, brilliant red fall color</td>
</tr>
<tr>
<td>Rugged Charm</td>
<td>'Rugged Charm' - grows to 28' tall x 15' wide; compact upright oval form; yellow-orange to red fall color; clusters of white flowers in May; red samaras</td>
</tr>
<tr>
<td>Beethoven</td>
<td>Narrow, columnar tree, ht 20-25', width 10'. Central leader. Red samaras. Fall color red and yellow Zone 4.</td>
</tr>
</tbody>
</table>
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.

### Ornemental Characteristics

<table>
<thead>
<tr>
<th>Size:</th>
<th>Tree &lt; 30 feet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Height:</td>
<td>6' to 25' with spread 10'-20'</td>
</tr>
<tr>
<td>Leaves:</td>
<td>Deciduous</td>
</tr>
<tr>
<td>Shape:</td>
<td>small tree or large multi-stem shrub</td>
</tr>
<tr>
<td>Ornamental Other:</td>
<td>full sun to part shade</td>
</tr>
</tbody>
</table>

### 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

### Moisture Tolerance

<table>
<thead>
<tr>
<th>Moisture Tolerance</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>VERY WET</strong></td>
</tr>
<tr>
<td>Occasionally saturated or very wet soil</td>
</tr>
<tr>
<td>1</td>
</tr>
</tbody>
</table>
### Cultivars for *Amelanchier spp.*

Showing 1-21 of 21 items.

<table>
<thead>
<tr>
<th>Cultivar Name</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>La Paloma</td>
<td>A. 'La Paloma' - drooping racemes; spring foliage emerges red; excellent fall color; small tree-form, to 13'</td>
</tr>
<tr>
<td>Northline</td>
<td>'Northline' - free suckering; early bearing; reaches 6-8 feet; heavy yield of large, delicious berries</td>
</tr>
<tr>
<td>Martin</td>
<td>'Martin' - early blooming; to 10'; produces large fruit with excellent flavor and uniform ripening</td>
</tr>
<tr>
<td>Regent</td>
<td>'Regent' - compact grower, to generally 4 to 6'; tolerates harsh, dry, or alkaline conditions when mature</td>
</tr>
<tr>
<td>Smokey</td>
<td>'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'</td>
</tr>
<tr>
<td>Standing Ovation</td>
<td>'Standing Ovation' (a.k.a. 'Obelisk') - uniform, columnar habit; spring foliage emerges red</td>
</tr>
<tr>
<td>Thiessen</td>
<td>'Thiessen'- vigorous, moderately suckering; to 15'; produces the largest berries of all varieties</td>
</tr>
<tr>
<td>Autumn Brilliance</td>
<td>'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</td>
</tr>
<tr>
<td>Ballerina</td>
<td>'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</td>
</tr>
<tr>
<td>Cole's Select</td>
<td>'Cole's Select' - low, vase-shaped shrub; multi-stemmed; 15' x 15' at maturity</td>
</tr>
<tr>
<td>Cumulus</td>
<td>'Cumulus' - moderately columnar; upright, oval, pyramidal habit; to 15 - 25'</td>
</tr>
<tr>
<td>Princess Diana</td>
<td>'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</td>
</tr>
<tr>
<td>Robin Hill</td>
<td>'Robin Hill' - flowers open pink and fade to white</td>
</tr>
<tr>
<td>Rubescens</td>
<td>'Rubescens' - pink flowering</td>
</tr>
<tr>
<td>Spring Flurry</td>
<td>'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</td>
</tr>
<tr>
<td>Cultivar Name</td>
<td>Notes</td>
</tr>
<tr>
<td>---------------</td>
<td>-------</td>
</tr>
<tr>
<td>Reflection</td>
<td>'Reflection' (a.k.a. 'Refzam') - oval, upright form; vigorous habit; similar ornamental traits as species; grows to 25' tall x 20' wide</td>
</tr>
<tr>
<td>Majestic</td>
<td>'Majestic' - possibly an A. laevis 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 A. laevis trees during the same growth period</td>
</tr>
<tr>
<td>Prince William</td>
<td>'Prince William' - possibly an A. laevis x A. canadensis hybrid; multi-stemmed, shrubby form; not exceeding 10'; spring foliage emerges red; good fruit set; multi-colored fall leaves</td>
</tr>
<tr>
<td>Rainbow Pillar</td>
<td>'Rainbow Pillar' (a.k.a. ‘Glenform’) - possibly a A. canadensis cultivar; shrubby form; upright, narrow habit; to 20' tall</td>
</tr>
<tr>
<td>Spring Glory</td>
<td>'Spring Glory' (a.k.a. 'Sprizam') - possibly an A. canadensis cultivar; compact, upright habit; to 12' tall and 8'-10' wide; orange/yellow fall color</td>
</tr>
<tr>
<td>Tradition</td>
<td>'Tradition' (a.k.a. 'Trazam') - possibly an A. canadensis cultivar; maintains a central leader; to 25'-30' tall; good early bloom</td>
</tr>
</tbody>
</table>
Photos

Amelanchier spp. - Habit, Fall Interest

Amelanchier spp. - Flowers

Amelanchier spp. - Flower

Amelanchier spp. - Habit

Amelanchier spp. - Bark

Amelanchier spp. - Immature Flowers

Amelanchier spp. - Flowers

Amelanchier spp. - Leaves
**Species: Betula nigra**  
(bet’you-lah nye’grah)  
River Birch; Red Birch

**Cultivar Information**

Most *Betula nigra* cultivars are medium to large trees **except for 'Fox Valley'** which is a dwarf tree approximately 15' tall.  
* See specific cultivar notes on next page.

**Ornamental Characteristics**

- **Size:** Tree > 30 feet, Tree < 30 feet
- **Height:** 40' - 70' (spread 40' - 60')
- **Leaves:** Deciduous
- **Shape:** pyramidal-oval to rounded
- **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
- **Environmental Other:** Medium to fast growth. best in consistently moist acid soil

**Insect Disease**

resistant to bronze birch borer; leaf spot can cause defoliation; susceptible to leaf miner

**Bare Root Transplanting**

Moderately difficult

**Other**

native to US, from Massachusetts south to Florida, west to Kansas and Minnesota

**Moisture Tolerance**

![Moisture Tolerance Graph]

<table>
<thead>
<tr>
<th>Occasional periods of dry soil</th>
<th>Prolonged periods of dry soil</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occasally saturated or very wet soil</td>
<td>Consistently moist, well-drained soil</td>
</tr>
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<td>1</td>
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</tbody>
</table>
Cultivars for *Betula nigra*

Showing 1-9 of 9 items.

<table>
<thead>
<tr>
<th>Cultivar Name</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>City Slicker</td>
<td>'City Slicker' - vigorous; drought tolerant; white bark</td>
</tr>
<tr>
<td>Dura-Heat</td>
<td>'Dura-Heat' - closely spaced leaves; cold hardy</td>
</tr>
<tr>
<td>Graceful Arms</td>
<td>'Graceful Arms' - semi-weeping form</td>
</tr>
<tr>
<td>Heritage</td>
<td>'Heritage' (a.k.a. Cully) - superior; vigorous; salmon bark</td>
</tr>
<tr>
<td>Shiloh Splash</td>
<td>'Shiloh Splash' - white variegated foliage</td>
</tr>
<tr>
<td>Summer Cascade</td>
<td>'Summer Cascade' - Weeping; semi-dwarf, 6-8' tall and wide</td>
</tr>
<tr>
<td>Suwanee</td>
<td>'Suwanee' - more lustrous leaves; salmon white bark</td>
</tr>
<tr>
<td>Tecumseh Compact</td>
<td>'Tecumseh Compact' - shrubby form with graceful semi-arching branches</td>
</tr>
<tr>
<td>Fox Valley</td>
<td>'Fox Valley' (a.k.a 'Little King) - dwarf,dense &amp; compact with branches to the ground</td>
</tr>
</tbody>
</table>
Species: *Carpinus caroliniana*
(kar-pine'us ka-ro-lin-ee-ay'nah)
American Hornbeam; Blue Beech; Ironwood; Musclewood

**Cultivar Information**

* See specific cultivar notes on next page.

**Ornamental Characteristics**

- **Size:** Tree < 30 feet
- **Height:** 30'
- **Leaves:** Deciduous
- **Shape:** round, spreading
- **Ornamental Other:** prefers shaded, moist soils

**Environmental Characteristics**

- **Light:** Part shade
- **Hardy To Zone:** 3b
- **Soil Ph:** Can tolerate acid to neutral soil (pH 5.0 to 7.4)

**Insect Disease**

relatively trouble free, little maintenance, ice storms can be a problem

**Bare Root Transplanting**

Difficult

**Other**

transplant in spring; somewhat slower to establish, Native to Eastern N. America

**Moisture Tolerance**

<table>
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<tr>
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<th>1</th>
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<td><strong>Very Wet</strong></td>
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<tr>
<td><strong>Very Dry</strong></td>
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</tbody>
</table>
Cultivars for *Carpinus caroliniana*

Showing 1-4 of 4 items.

<table>
<thead>
<tr>
<th>Cultivar Name</th>
<th>Notes</th>
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</thead>
<tbody>
<tr>
<td>Ball O' Fire</td>
<td>a.k.a. 'J.N. Globe' - compact, globe form; superior fall color; matures to 15' x 15'</td>
</tr>
<tr>
<td>Firespire</td>
<td>a.k.a. 'J.N. Upright' - tight upright habit; notable orange red fall color; mature to 20' tall by 10' wide</td>
</tr>
<tr>
<td>Native Flame</td>
<td>oval, upright form; notable bright red fall color</td>
</tr>
<tr>
<td>Palisade</td>
<td>narrow, upright form; dense, tidy habit; grows 25' tall and 12' wide</td>
</tr>
</tbody>
</table>
Photos

Carpinus caroliniana - Bark

Carpinus caroliniana - Habit

Carpinus caroliniana - Bark

Carpinus caroliniana - Leaves, Fruit

Carpinus caroliniana - Bark

Carpinus caroliniana - Habit

Carpinus caroliniana - Bark

Carpinus caroliniana - Leaves

Carpinus caroliniana - Buds

Carpinus caroliniana - Habit, Fall Interest
Species: **Cercis canadensis**  
(ser'sis kan-ah-den'sis)  
Eastern Redbud

**Cultivar Information**

* See specific cultivar notes on next page.

<table>
<thead>
<tr>
<th>Orna mental Characteristics</th>
<th>Environmental Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Size</strong></td>
<td>Light: Full sun, Part shade</td>
</tr>
<tr>
<td>Tree &lt; 30 feet, Shrub &gt; 8 feet</td>
<td>Hardy To Zone: 5b</td>
</tr>
<tr>
<td><strong>Height</strong></td>
<td>Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)</td>
</tr>
<tr>
<td>20' - 35' (spread 20' - 35')</td>
<td>Environmental Other: tolerant of shade and heat</td>
</tr>
<tr>
<td><strong>Leaves</strong></td>
<td>CU Structural Soil™: Yes</td>
</tr>
<tr>
<td>Deciduous</td>
<td></td>
</tr>
<tr>
<td><strong>Shape</strong></td>
<td></td>
</tr>
<tr>
<td>picturesque horizontal branching habit</td>
<td></td>
</tr>
<tr>
<td><strong>Ornamental Other</strong></td>
<td></td>
</tr>
<tr>
<td>Single stem or multi stemmed forms available.</td>
<td></td>
</tr>
</tbody>
</table>

**Insect Disease**

canker and verticillium wilt can cause damage

**Bare Root Transplanting**

Moderately difficult

**Other**

native to eastern and south-central U.S.

**Moisture Tolerance**

![Moisture Tolerance Graph]

<table>
<thead>
<tr>
<th>Moisture Condition</th>
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<th>12</th>
</tr>
</thead>
</table>
### Cultivars for *Cercis canadensis*

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

<table>
<thead>
<tr>
<th>Cultivar Name</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Ace of Hearts</td>
<td>'Ace of Hearts' - compact habit; semi-glossy, notably heart-shaped leaves; zig-zag stems; dense dome-shaped canopy which typically requires no pruning</td>
</tr>
<tr>
<td>Alba</td>
<td>'Alba' - white flowers</td>
</tr>
<tr>
<td>Appalachian Red</td>
<td>'Appalachian Red' - dark reddish pink flowers</td>
</tr>
<tr>
<td>Flame</td>
<td>'Flame' - double-flowered variety</td>
</tr>
<tr>
<td>Forest Pansy</td>
<td>'Forest Pansy' - purplish foliage- less cold hardy</td>
</tr>
<tr>
<td>Hearts of Gold</td>
<td>'Hearts of Gold' - new leaves emerge red then turn to chartreuse; older foliage fades to green</td>
</tr>
<tr>
<td>Lavender Twist</td>
<td>'Lavender Twist' (a.k.a. 'Covey') - weeping form; contorted, arching branches</td>
</tr>
<tr>
<td>Northern Strain</td>
<td>'Northern Strain' - more cold hardy, to zone 5a</td>
</tr>
<tr>
<td>Rising Sun</td>
<td>'Rising Sun' - Similar to 'Hearts of Gold', slightly more colorful; new foliage emerges red then fades to orange, yellow and finally green</td>
</tr>
<tr>
<td>Royal White</td>
<td>'Royal White' (a.k.a. 'Royal') - white flowering; more compact, earlier blooming, more floriferous, and produces larger flowers than 'Alba'</td>
</tr>
<tr>
<td>Ruby Falls</td>
<td>'Ruby Falls' - weeping form; purple foliage</td>
</tr>
<tr>
<td>Silver Cloud</td>
<td>'Silver Cloud' - oddly irregular, splotchy variegating</td>
</tr>
<tr>
<td>Withers Pink Charm</td>
<td>'Withers Pink Charm' - brighter pink flowers than species</td>
</tr>
</tbody>
</table>
Photos

Cercis canadensis 'Alba' - Habit, Flowers

Cercis canadensis - Flowers

Cercis canadensis - Habit

Cercis canadensis 'Alba' - Flowers

Cercis canadensis - Flowers

Cercis canadensis - Habit

Cercis canadensis - Leaf

Cercis canadensis - Fruit

Cercis canadensis - Habit, Flowers
Species: *Cornus mas*
(kore'nu:s mas)
Corneliancherry Dogwood; Cornelian Cherry

### Cultivar Information

There are many cultivars of this plant. Particularly in Europe it is used as a food plant and many high-yield fruiting cultivars exist there, occasionally some are available in the U.S.

* See specific cultivar notes on next page.

### Ornamental Characteristics

- **Size:** Tree < 30 feet
- **Height:** 18' (spread 15' - 20')
- **Leaves:** Deciduous
- **Shape:** rounded; multi-stem, occasionally grown a single stem

### 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)
- **CU Structural Soil™:** Yes

### Insect Disease

pest free

### Bare Root Transplanting

Easy

### Native Central and Southern Europe and Western Asia.

### Moisture Tolerance

<table>
<thead>
<tr>
<th>Very Wet</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occasionaly saturated or very wet soil</td>
</tr>
<tr>
<td>Consistently moist, well-drained soil</td>
</tr>
<tr>
<td>Occasional periods of dry soil</td>
</tr>
<tr>
<td>Prolonged periods of dry soil</td>
</tr>
<tr>
<td>1</td>
</tr>
</tbody>
</table>
Cultivars for *Cornus mas*

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

<table>
<thead>
<tr>
<th>Cultivar Name</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Alba</td>
<td>'Alba' - white fruits</td>
</tr>
<tr>
<td>Aurea</td>
<td>'Aurea' - gold to chartreuse mature foliage</td>
</tr>
<tr>
<td>Flava</td>
<td>'Flava' - yellow fruits</td>
</tr>
<tr>
<td>Golden Glory</td>
<td>'Golden Glory' - upright form; heavy bloomer; widely available in the trade, probably not as hardy as other forms</td>
</tr>
<tr>
<td>Nana</td>
<td>'Nana' - dwarf, to three feet tall</td>
</tr>
<tr>
<td>Variegata</td>
<td>'Variegata' - white variegated foliage</td>
</tr>
<tr>
<td>Aureo-Elegantissima</td>
<td>'Aureo-Elegantissima' (a.k.a. 'Elegantissima', 'Tricolor')- leaves bordered in yellow, green and pink</td>
</tr>
<tr>
<td>Fructu Violaceo</td>
<td>'Fructu Violaceo' - purple fruits</td>
</tr>
<tr>
<td>Macrocarpa</td>
<td>'Macrocarpa' - larger fruits</td>
</tr>
<tr>
<td>Spring Glow</td>
<td>'Spring Glow' - low chilling requirement; beautiful flowers; leathery foliage; useful for getting fruit set in southern climes</td>
</tr>
<tr>
<td>Elegant</td>
<td>'Elegant' - improved fruit set</td>
</tr>
<tr>
<td>Pioneer</td>
<td>'Pioneer' - heavy fruit set</td>
</tr>
<tr>
<td>Redstone</td>
<td>'Redstone' - improved heavier fruit set</td>
</tr>
</tbody>
</table>
Photos

Cornus mas - Bark

Cornus mas - Buds

Cornus mas - Habit

Cornus mas - Buds

Cornus mas - Leaves

Cornus mas - Leaves, Fruit

Cornus mas - Flowers

Cornus mas - Habit
Species: *Cotinus obovatus*  
(koe-tie'rus ob-oh-vay'tus)  
American Smoketree

**Cultivar Information**

This species has almost no cultivars and any that exist are rare. It has a lot of potential, particularly for creating cultivars with superior fall color, improved urban hardiness; improved form; and superior panicle color/yield. Keep an eye out for new varieties in the future.

* See specific cultivar notes on next page.

<table>
<thead>
<tr>
<th><strong>Ornamental Characteristics</strong></th>
<th><strong>Environmental Characteristics</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Size: Tree &lt; 30 feet, Shrub &gt; 8 feet</td>
<td>Light: Full sun</td>
</tr>
<tr>
<td>Height: 20’ - 30; (variable spread)</td>
<td>Hardy To Zone: 5b</td>
</tr>
<tr>
<td>Leaves: Deciduous</td>
<td>Soil Ph: Any</td>
</tr>
<tr>
<td>Shape: upright, oval/rounded shrub, more tree-like than C. Coggygria</td>
<td>Environmental Other: blue-green leaves turn intense yellow, orange, red, purple in fall;</td>
</tr>
<tr>
<td>Ornamental Other:</td>
<td>CU Structural Soil™: Yes</td>
</tr>
</tbody>
</table>

**Insect Disease**

none serious; weak wood susceptible to ice damage

**Bare Root Transplanting**

Difficult

**Other**

Native to South and Midwest US, Difficult to Transplant

**Moisture Tolerance**

<table>
<thead>
<tr>
<th></th>
<th>1</th>
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<tbody>
<tr>
<td>Occasional periods of dry soil</td>
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<tr>
<td>Prolonged periods of dry soil</td>
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<tr>
<td>Moisture Tolerance</td>
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</tbody>
</table>
Cultivars for *Cotinus obovatus*

Showing 1-2 of 2 items.

<table>
<thead>
<tr>
<th>Cultivar Name</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Red Leaf</td>
<td>‘Red Leaf’ - superior, reliable fall color</td>
</tr>
<tr>
<td>Grace</td>
<td>Hybrid with C.coggygria, but much more tree like than the European smokebush. Marroon to purple foliage. Can be specified as multi-stemmed or single stemmed.</td>
</tr>
</tbody>
</table>
Photos

Cotinus obovatus - Bark

Cotinus obovatus - Leaves, Fall Interest

Cotinus obovatus - Habit, Fall Interest

Cotinus obovatus - Bark
Species: *Crataegus crus-galli*  
(kra-tee'gus kruss-gal'eye)  
Cockspur Hawthorn

**Cultivar Information**

* See specific cultivar notes on next page.

<table>
<thead>
<tr>
<th>Ornamental Characteristics</th>
<th>Environmental Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size: Tree &lt; 30 feet</td>
<td>Light: Full sun</td>
</tr>
<tr>
<td>Height: 20’ - 25’</td>
<td>Hardy To Zone: 4a</td>
</tr>
<tr>
<td>Leaves: Deciduous</td>
<td>Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)</td>
</tr>
<tr>
<td>Shape: round</td>
<td>Salt Tolerance: Tolerates salty soil</td>
</tr>
<tr>
<td>Ornamental Other: tolerant of a wide range of soils except poorly drained ones</td>
<td>Environmental Other: white flowers, bright red persistent fruit, strongly horizontal branching pattern; thorns</td>
</tr>
</tbody>
</table>

**Insect Disease**

Susceptible to cedar-hawthorn rust, leaf blight, lacebug

**Bare Root Transplanting**

Moderately difficult

**Other**

transplant B & B, somewhat slow to establish, native to East and Midwest US and Canada

**Moisture Tolerance**

<table>
<thead>
<tr>
<th>Moisture Tolerance</th>
<th>1</th>
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<tr>
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<tr>
<td>Occasionally saturated or very wet soil</td>
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<tr>
<td>Consistently moist, well-drained soil</td>
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<tr>
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<td>Prolonged periods of dry soil</td>
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</tbody>
</table>
Cultivars for *Crataegus crus-galli*

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

<table>
<thead>
<tr>
<th>Cultivar Name</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Crusader</td>
<td>'Crusader' (a.k.a. 'Cruzam') - thornless; said to be particularly disease resistant</td>
</tr>
<tr>
<td>Inermis</td>
<td>'Inermis' - thornless variety</td>
</tr>
</tbody>
</table>
Photos

Crataegus crus-galli - Fruit

Crataegus crus-galli - Leaves

Crataegus crus-galli - Thorn

Crataegus crus-galli - Habit

Crataegus crus-galli - Flowers

Crataegus crus-galli - Leaf

Crataegus crus-galli - Fruit
### Species: *Crataegus phaenopyrum*

(kra-tee'gus fee-no-pye'rum)

Washington Hawthorn

**Cultivar Information**

* See specific cultivar notes on next page.

<table>
<thead>
<tr>
<th>Ornamental Characteristics</th>
<th>Environmental Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td>Size: Tree &lt; 30 feet</td>
<td>Light: Full sun</td>
</tr>
<tr>
<td>Height: 20' - 30'</td>
<td>Hardy To Zone: 4b</td>
</tr>
<tr>
<td>Leaves: Deciduous</td>
<td>Soil Ph: Can tolerate acid to alkaline soil (pH 5.0 to 8.0)</td>
</tr>
<tr>
<td>Shape: round</td>
<td>Salt Tolerance: Tolerates salty soil</td>
</tr>
<tr>
<td>Ornamental Other: tolerant of a wide range of soils except poorly drained ones</td>
<td>Environmental Other: white flowers; thorns; reddish-purple fall color; bright, glossy red persistent fruit</td>
</tr>
</tbody>
</table>

**Insect Disease**

resistant to cedar-hawthorn rust; less susceptible than other hawthorns to disease; susceptible to lacebug

**Bare Root Transplanting**

Difficult

**Other**

transplant in spring; somewhat slow to establish, native to Eastern and Midwest US

**Moisture Tolerance**

![Moisture Tolerance Diagram](image)

<table>
<thead>
<tr>
<th>Moisture Tolerance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occasional periods of dry soil</td>
</tr>
<tr>
<td>Prolonged periods of dry soil</td>
</tr>
<tr>
<td>Consistently moist, well-drained soil</td>
</tr>
<tr>
<td>Occasionally saturated or very wet soil</td>
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<tr>
<td>1</td>
</tr>
</tbody>
</table>
### Cultivars for *Crataegus phaenopyrum*

Showing 1-3 of 3 items.

<table>
<thead>
<tr>
<th>Cultivar Name</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Fastigiata</td>
<td>'Fastigiata' - fastigiate form; columnar habit; to 30' tall x 20' wide</td>
</tr>
<tr>
<td>Princeton Sentry</td>
<td>'Princeton Sentry' - fastigiate form; columnar habit, to 30' tall x 20' wide; nearly thornless</td>
</tr>
<tr>
<td>Vaughn</td>
<td>'Vaughn' (a.k.a. x 'Vaughnii') - hybrid with C. crus-galli; profuse, long-lasting red fruit; susceptible to rust</td>
</tr>
</tbody>
</table>
Photos

Crataegus phaenopyrum - Flowers

Crataegus phaenopyrum - Fruit

Crataegus phaenopyrum - Leaves, Fruit

Crataegus phaenopyrum - Rust

Crataegus phaenopyrum - Thorn

Crataegus phaenopyrum - Bark

Crataegus phaenopyrum - Thorns

Crataegus phaenopyrum - Leaves, Fruit

Crataegus phaenopyrum - Habit, Fall Interest
Species: *Crataegus viridis* 'Winter King'

(kra-tee'gus veer'ih-dis ...)

Winter King Hawthorn

### Ornamental Characteristics
- **Size:** Tree < 30 feet
- **Height:** 20' - 30'
- **Leaves:** Deciduous
- **Shape:** 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
- **Environmental Other:** thorns; white flowers; purple and scarlet fall color; bright red persistent fruit, outstanding for size and retention in winter
- **CU Structural Soil™:** Yes

### Insect Disease
resistant to cedar-hawthorn rust; less susceptible than other hawthorns to disease

### Bare Root Transplanting
Moderately difficult

### Moisture Tolerance

<table>
<thead>
<tr>
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</thead>
<tbody>
<tr>
<td><strong>Very Wet</strong></td>
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<td><strong>Very Dry</strong></td>
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<tr>
<td>Occasionally saturated or very wet soil</td>
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<td>Consistently moist, well-drained soil</td>
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<tr>
<td>Occasional periods of dry soil</td>
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<tr>
<td>Prolonged periods of dry soil</td>
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</tbody>
</table>

### Other
- transplant in spring; somewhat slow to establish, Native to East and Midwest US
Photos

Crataegus viridis 'Winter King' - Leaves, Flowers

Crataegus viridis 'Winter King' - Habit, Fall Interest

Crataegus viridis flowers

Crataegus viridis 'Winter King' - Habit

Crataegus viridis 'Winter King' - Habit

Crataegus viridis 'Winter King' - Habit, Flowers

Crataegus viridis 'Winter King' - Habit

Crataegus viridis 'Winter King' - Leaves, Fruit
Species: *Gleditsia triacanthos*
(geh-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.

### Moisture Tolerance

<table>
<thead>
<tr>
<th>Occasional periods of dry soil</th>
<th>Consistently moist, well-drained soil</th>
<th>Occasionally saturated or very wet soil</th>
<th>Prolonged periods of dry soil</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
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</tbody>
</table>
Cultivars for *Gleditsia triacanthos*

Showing 1-9 of 9 items.

<table>
<thead>
<tr>
<th>Cultivar Name</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Moraine</td>
<td>'Moraine' - graceful, umbrella-like habit; thornless</td>
</tr>
<tr>
<td>Shademaster</td>
<td>'Shademaster' - vase-like shape; upright, symmetrical habit; to 40' tall; produces some pods; superior drought tolerance; thornless</td>
</tr>
<tr>
<td>Skyline</td>
<td>'Skyline' (a.k.a. 'Skycole') - cold-hardy form; reduced fruiting; unusual upright growth habit; broadly pyramidal form; 40' tall and wide; thornless</td>
</tr>
<tr>
<td>Sunburst</td>
<td>'Sunburst' (a.k.a. 'Suncole') - golden yellow new foliage turns bright green; more susceptible to insect problems; thornless</td>
</tr>
<tr>
<td>var. inermis</td>
<td>var. inermis - thornless variety</td>
</tr>
<tr>
<td>Christie</td>
<td>'Christie' (a.k.a. Halka) - sturdy-trunked form; round-headed crown with less drooping branches; to 40' tall and wide; rarely fruits</td>
</tr>
<tr>
<td>Imperial</td>
<td>'Imperial' (a.k.a. 'Impcole') - relatively dwarf mature size; to 30' tall; compact spreading habit; produces few pods; thornless</td>
</tr>
<tr>
<td>Spectrum</td>
<td>'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</td>
</tr>
<tr>
<td>Rubylace</td>
<td>'Rubylace' - bronze-red foliage</td>
</tr>
</tbody>
</table>
Photos

Gleditsia triacanthos - Leaves, Thorns

Gleditsia triacanthos - Bark

Gleditsia triacanthos - Fruit

Gleditsia triacanthos - Habit, Fall Interest

Gleditsia triacanthos - Bud

Gleditsia triacanthos - Leaves

Gleditsia triacanthos - Habit

Gleditsia triacanthos - Leaf

Gleditsia triacanthos - Fruit

Gleditsia triacanthos - Leaves
Species: *Koelreuteria paniculata*
(kol-rew-teer'ee-ah pan-ik-u-lay'tah)
Golden-rain Tree; Varnish Tree

**Cultivar Information**

* See specific cultivar notes on next page.

**Ornamental Characteristics**

- **Size:** Tree < 30 feet
- **Height:** 30' - 40'
- **Leaves:** Deciduous
- **Shape:** round
- **Ornamental Other:** tolerates heat

**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:** yellow flower clusters in mid-summer; specify straight trunk and good branch structure or tag at nursery
- **CU Structural Soil™:** Yes

**Insect Disease**

- No diseases listed

**Bare Root Transplanting**

- Easy

**Other**

- somewhat weak wooded; transplant in spring, Native to China, Japan, Korea.

**Moisture Tolerance**

<table>
<thead>
<tr>
<th>Moisture Condition</th>
<th>1</th>
<th>2</th>
<th>3</th>
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</tbody>
</table>

Section 2.1 - Page 47
Cultivars for *Koelreuteria paniculata*

Showing 1-3 of 3 items.

<table>
<thead>
<tr>
<th>Cultivar Name</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Rose Lantern</td>
<td>'Rose Lantern' - pink fruits</td>
</tr>
<tr>
<td>September</td>
<td>‘September’ - later flowering</td>
</tr>
<tr>
<td>Summerburst</td>
<td>'Summerburst' - foliage more glossy than species; better symmetry and heat resistance than species</td>
</tr>
</tbody>
</table>
Photos

Koelreuteria paniculata - Leaves, Habit, Fall Interest

Koelreuteria paniculata - Bark

Koelreuteria paniculata - Bark

Koelreuteria paniculata - Habit

Koelreuteria paniculata - Fruit

Koelreuteria paniculata - Panicle

Koelreuteria paniculata - Leaves, Fruit

Koelreuteria paniculata - Habit

Koelreuteria paniculata - Leaves
Species: *Maackia amurensis*
(mak'ee-ah a-moor-en'sis)
Amur Maackia

Cultivar Information

* See specific cultivar notes on next page.

<table>
<thead>
<tr>
<th>Ornamental Characteristics</th>
<th>Environmental Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Size:</strong> Tree &lt; 30 feet</td>
<td><strong>Light:</strong> Full sun</td>
</tr>
<tr>
<td><strong>Height:</strong> 20' - 30' (equal or wider spread)</td>
<td><strong>Hardy To Zone:</strong> 4a</td>
</tr>
<tr>
<td><strong>Leaves:</strong> Deciduous</td>
<td><strong>Soil Ph:</strong> Can tolerate acid to alkaline soil (pH 5.0 to 8.0)</td>
</tr>
<tr>
<td><strong>Shape:</strong> small, round headed tree</td>
<td><strong>Salt Tolerance:</strong> Tolerates salty soil</td>
</tr>
<tr>
<td><strong>Ornamental Other:</strong> prefers sun; fixes atmospheric nitrogen; adaptable</td>
<td><strong>Environmental Other:</strong> white pea-like flowers in June/July; shiny amber bark peels and curls; leaflets emerge with grayish pubescence turning to rich green</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Insect Disease</th>
<th>Bare Root Transplanting</th>
</tr>
</thead>
<tbody>
<tr>
<td>none serious</td>
<td>Easy</td>
</tr>
</tbody>
</table>

Other

easy to transplant, Native to Manchuria

Moisture Tolerance

<table>
<thead>
<tr>
<th>Moisture Tolerance</th>
<th>1</th>
<th>2</th>
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<tbody>
<tr>
<td>Occasionally saturated or very wet soil</td>
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<tr>
<td>Consistently moist, well-drained soil</td>
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<tr>
<td>Occasional periods of dry soil</td>
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<tr>
<td>Prolonged periods of dry soil</td>
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</tbody>
</table>
### Cultivars for *Maackia amurensis*

Showing 1-3 of 3 items.

<table>
<thead>
<tr>
<th>Cultivar Name</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>MaacNificent</td>
<td>'MaacNificent' - vigorous; upright branching; symmetrical vase shape; foliage shows silvery pubescence in spring</td>
</tr>
<tr>
<td>Starburst</td>
<td>'Starburst' - denser and more uniform and vigorous than the species</td>
</tr>
<tr>
<td>Summertime</td>
<td>'Summertime' - slightly smaller than species, height of 18-20', width of 12-15'</td>
</tr>
</tbody>
</table>
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 the 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

**Moisture Tolerance**

<table>
<thead>
<tr>
<th>Occasional periods of</th>
<th>Prolonged periods of</th>
</tr>
</thead>
<tbody>
<tr>
<td>very wet</td>
<td>very dry</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>1</th>
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</table>
### Cultivars for *Malus* spp.

Showing **1-33** of **33** items.

<table>
<thead>
<tr>
<th>Cultivar Name</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Adams</td>
<td>'Adams' - 20' high and wide; round form; profuse flowering; deep pink buds and flowers; 5/8&quot;, persistent red fruit; foliage green with a red tint</td>
</tr>
<tr>
<td>Adirondack</td>
<td>'Adirondack' - grows to 18' high x 12' wide; vase-like form; carmine buds that open to white flowers; 1/2&quot;, bright red fruit; dark green leathery foliage</td>
</tr>
<tr>
<td>American Salute</td>
<td>'American Salute' (a.k.a. 'Amsalzam') - grows to 18' high x 10' wide; upright oval form; rose red buds and flowers; 3/8&quot;, cherry red fruit; maroon-red foliage</td>
</tr>
<tr>
<td>American Triumph</td>
<td>'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</td>
</tr>
<tr>
<td>Jackii</td>
<td>'Jackii' - <em>M. baccata</em> cultivar; hardy to zone 3a; grows to 20' high and wide; round form; white-pink bud open early to fragrant white flowers; 3/8&quot; deep purple-red fruit; glossy green foliage</td>
</tr>
<tr>
<td>Cardinal</td>
<td>'Cardinal' - grows to 16' high x 22' wide; broad spreading habit; pink buds open to bright pink to red flowers; 1/2&quot;, deep red often sparse fruits; glossy dark purple-red foliage</td>
</tr>
<tr>
<td>Centurion</td>
<td>'Centurion' (a.k.a. 'Centsam') - grows to 20' high x 15' wide; narrow oval form; dark red buds open to rose red; 5/8&quot; bright red persistent fruit; reddish foliage changing to green</td>
</tr>
<tr>
<td>Dolgo</td>
<td>'Dolgo' - grows to 30' high x 25' wide; oval form; white buds and flowers; 1.5&quot; fruit, bright red edible fruit; glossy green foliage</td>
</tr>
<tr>
<td>Donald Wyman</td>
<td>'Donald Wyman' - grow to 20' high x 22' wide; round form; pink buds open to abundant white flowers; 3/8&quot;, bright red persistent fruit; dark green foliage</td>
</tr>
<tr>
<td>Doubloons</td>
<td>'Doubloons' - grows to 18' high x 16' wide; dense oval habit; carmine buds open to double white flowers; 3/8&quot; persistent yellow fruit; deep green foliage</td>
</tr>
<tr>
<td>Liset</td>
<td>'Liset' - grows to 15' high and wide; columnar habit; crimson bud open to large pink-red flowers; 1/2&quot;, dark red fruit; reddish foliage aging to greenish-bronze</td>
</tr>
<tr>
<td>Prairiefire</td>
<td>'Prairiefire' - grows to 20' high x 18' wide; oval, round with age; crimson buds open to pink-red flowers; 1/2&quot;, persistent orange-red fruit; reddish aging to green red</td>
</tr>
<tr>
<td>Professor Sprenger</td>
<td>'Professor Sprenger' - grows to 20' high and wide; oval form, round with age; pink buds open to fragrant white flowers; 1/2&quot; persistent, orange-red fruits</td>
</tr>
<tr>
<td>Purple Prince</td>
<td>'Purple Prince' - grows to 20' high and wide; round habit; carmine buds open to rose red flowers; 3/8&quot;, persistent maroon fruit; purple foliage aging to greenish-bronze</td>
</tr>
<tr>
<td>Cultivar Name</td>
<td>Notes</td>
</tr>
<tr>
<td>------------------------</td>
<td>-------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------</td>
</tr>
<tr>
<td>Red Jewel</td>
<td>'Red Jewel' (a.k.a. 'jewelcole') - grows to 15' high x 12' wide; oval from; pink to white buds open to white flowers; 1/2&quot; persistent bright red fruit</td>
</tr>
<tr>
<td>Robinson</td>
<td>'Robinson' - grows to 25' high and wide; oval form; crimson buds open to deep pink flowers; 3/8&quot;, dark glossy red fruit; reddish aging to bronze green</td>
</tr>
<tr>
<td>Royal Raindrops</td>
<td>'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&quot;, persistent red fruit; purple, cut-leaf foliage, turns orange red in fall</td>
</tr>
<tr>
<td>Sentinel</td>
<td>'Sentinel' - grows to 18' high x 12' wide; narrow oval habit; red buds open to to singe white flowers; 1/2&quot;, persistent bright red fruit; dark green glossy foliage</td>
</tr>
<tr>
<td>Snowdrift</td>
<td>'Snowdrift' - grows to 20' high and wide; round, upright, dense, spreading form; pink buds that open to single white flowers; 3/8&quot;, persistent orange fruit; bright green glossy foliage</td>
</tr>
<tr>
<td>Strawberry Parfait</td>
<td>'Strawberry Parfait' - grows to 18' high x 22' wide; vase-like form; red buds open to large pink flowers; 3/8&quot;, yellow fruit; reddish foliage aging to green</td>
</tr>
<tr>
<td>Sugartyme</td>
<td>'Sugartyme' (a.k.a. 'Sutyzam') - 18' high x 15' wide; oval habit; pink buds open to fragrant white flowers; 1/2&quot;, persistent red fruit</td>
</tr>
<tr>
<td>Calocarpa</td>
<td>x zumi 'Calocarpa' - grows to 20' high x 22' wide; round form; deep red buds open to white flowers; 3/8&quot;, persistent bright red fruit</td>
</tr>
<tr>
<td>Coralburst</td>
<td>'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&quot;, bronze fruits; mildly susceptible to scab; excellent resistance to most other major diseases</td>
</tr>
<tr>
<td>Firebird</td>
<td>'Firebird' - dwarf M. sargentii selection; grows 8' high x 10' wide; rounded spreading form; red buds open to white flowers; 3/8&quot;, more persistent bright red fruits than any other natural dwarf crabapple</td>
</tr>
<tr>
<td>Golden Raindrops</td>
<td>'Golden Raindrops' (a.k.a. 'Schmidcutleaf') - 20'high x 15' wide; upright vase-like habit; profuse, white buds and flowers; 1/4&quot;, tiny golden yellow fruit; fine textured, deeply cut foliage</td>
</tr>
<tr>
<td>Harvest Gold</td>
<td>'Harvest Gold' (a.k.a. 'Hargozam') - grows to 22' high x 18' wide; upright, vase-shaped form; white buds and flowers; 1/2&quot;, persistent yellow fruit; fair scab and fire blight resistance; good cedar-apple rust and mildew resistance</td>
</tr>
<tr>
<td>Pink Princess</td>
<td>'Pink Princess' (a.k.a. 'Parrsi') - M. sargentii selection; dwarf, grows to 8' tall x 12' wide; low, spreading form; purple foliage, becoming bronze green; rose pink flowers; 1/4&quot;, deep red fruit; excellent resistance to scab, fireblight, cedar-Apple Rust, mildew</td>
</tr>
<tr>
<td>Purple Prince</td>
<td>‘Purple Prince’ - grows to 20' tall and wide; rounded from; purple foliage, becoming bronze green; rose red flowers; 3/8&quot; - 1/2&quot;, maroon fruit; excellent resistance to scab, cedar-apple rust; good resistance to fireblight and mildew</td>
</tr>
<tr>
<td>Cultivar Name</td>
<td>Notes</td>
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</tr>
<tr>
<td>Royal Raindrops</td>
<td>'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&quot;, persistent red fruit; excellent resistance to scab and cedar-apple rust; good resistance to fireblight and mildew</td>
</tr>
<tr>
<td>American Spirit</td>
<td>'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</td>
</tr>
<tr>
<td>Madonna</td>
<td>'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</td>
</tr>
<tr>
<td>Silver Drift</td>
<td>'Silver Drift' - rounded habit; red buds open to white flowers; small persistent red fruits; disease resistant; grows to 20' tall</td>
</tr>
<tr>
<td>Malus floribunda</td>
<td>Species with good disease resistance and wider than tall form</td>
</tr>
</tbody>
</table>
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: *Ostrya virginiana*  
(os'tri-ah ver-jin-i-ay'nah)  
Hop Hornbeam

### Ornamental Characteristics

- **Size:** Tree > 30 feet, Tree < 30 feet  
- **Height:** 30' - 50'  
- **Leaves:** Deciduous  
- **Shape:** oval  
- **Ornamental Other:** tolerates light 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:** slow growing; dark green leaves turn yellow/brown in fall and drop early; attractive grayish brown exfoliating bark; distinctive fruit resembles that of hops, hence the name

### Insect Disease

- pest free

### Bare Root Transplanting

- Difficult

### Other

- slow to recover from transplanting; transplant in spring, Native to Eastern N. America

### Moisture Tolerance

<table>
<thead>
<tr>
<th>Very Wet</th>
<th>Very Dry</th>
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</thead>
<tbody>
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<td>1</td>
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<td>12</td>
</tr>
</tbody>
</table>

- Occasionally saturated or very wet soil  
- Consistently moist, well-drained soil  
- Occasional periods of dry soil  
- Prolonged periods of dry soil
Photos

Ostrya virginiana - Leaves, Fruit

Ostrya virginiana - Leaves

Ostrya virginiana - Bark

Ostrya virginiana - Habit

Ostrya virginiana - Bark

Ostrya virginiana - Fruit

Ostrya virginiana - Catkins

Ostrya virginiana - Catkins

Ostrya virginiana - Leaf

Ostrya virginiana - Leaf
Species: Parrotia persica  
(pah-rote'ee-ah purr'sih-kah)  
Persian Parrotia

Cultivar Information

Several cultivars exist for this species, most are rare.
* See specific cultivar notes on next page.

<table>
<thead>
<tr>
<th>Ornamental Characteristics</th>
<th>Environmental Characteristics</th>
</tr>
</thead>
</table>
| **Species:** Parrotia persica  
(pah-rote'ee-ah purr'sih-kah)  
Persian Parrotia | **Light:** Full sun, Part shade  
**Hardy To Zone:** 5a  
**Soil Ph:** Can tolerate acid to alkaline soil  
(pH 5.0 to 8.0)  
**Environmental Other:** leaves emerge red/purple/bronze, turn green, then yellow/orange/red in fall; small maroon flowers in late winter; exfoliating bark is cream/gray/green/brown  
**CU Structural Soil™:** Yes |
| **Size:** Tree < 30 feet  
**Height:** 20’ - 40’ (spread 15’ - 30’)  
**Leaves:** Deciduous  
**Shape:** oval/rounded; single stem tree or large multi-stem shrub  
**Ornamental Other:** full sun to light shade; withstands heat and cold |  |
| **Insect Disease** | **Bare Root Transplanting** |
| none | Easy |
| **Other** |  |
| native to Iran; transplant B & B or from container |  |

Moisture Tolerance

<table>
<thead>
<tr>
<th>Moisture Tolerance</th>
</tr>
</thead>
</table>
| **Very Wet**  
Occasionally saturated or very wet soil |
| **Consistently moist, well-drained soil** |
| **Occasional periods of dry soil** |
| **Prolonged periods of dry soil** |
| 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
Cultivars for *Parrotia persica*

Showing 1-5 of 5 items.

<table>
<thead>
<tr>
<th>Cultivar Name</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pendula</td>
<td>'Pendula' - weeping; dome-shaped form</td>
</tr>
<tr>
<td>Horizontalis</td>
<td>'Horizontalis' - semi-weeping, with a wide-spreading horizontal branching pattern; good fall color</td>
</tr>
<tr>
<td>Vanessa</td>
<td>'Vanessa' - upright, columnar habit; reddish new growth tips and good fall color</td>
</tr>
<tr>
<td>Ruby Vase</td>
<td>‘Ruby Vase’ - new leaves ruby-red; upright vase-shaped habit; grows to 30’ high x 12’ wide</td>
</tr>
<tr>
<td>Biltmore</td>
<td>'Biltmore' - superior bark and habit</td>
</tr>
</tbody>
</table>
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*

**Moisture Tolerance**

<table>
<thead>
<tr>
<th></th>
<th>Very Wet</th>
<th>Consistently moist, well-drained soil</th>
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</tbody>
</table>
Photos

Prunus 'Accolade' - Flowers
Prunus 'Accolade' - Flowers
Prunus 'Accolade' - Flowers

Prunus 'Accolade' - Flowers
Prunus 'Accolade' - Flowers
Prunus 'Accolade' - Flowers

Prunus 'Accolade' - Habit, 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.

<table>
<thead>
<tr>
<th>Ornamental Characteristics</th>
<th>Environmental Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Size:</strong> Tree &lt; 30 feet</td>
<td><strong>Light:</strong> Full sun</td>
</tr>
<tr>
<td><strong>Height:</strong> 20' - 35' (spread 18' - 25')</td>
<td><strong>Hardy To Zone:</strong> 3a</td>
</tr>
<tr>
<td><strong>Leaves:</strong> Deciduous</td>
<td><strong>Soil Ph:</strong> Can tolerate acid to alkaline soil (pH 5.0 to 8.0)</td>
</tr>
<tr>
<td><strong>Shape:</strong> small tree or large shrub; oval-rounded crown</td>
<td></td>
</tr>
<tr>
<td><strong>Ornamental Other:</strong></td>
<td></td>
</tr>
</tbody>
</table>

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

Moisture Tolerance

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<tr>
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</tr>
</tbody>
</table>
Cultivars for *Prunus virginiana*

Showing 1-8 of 8 items.

<table>
<thead>
<tr>
<th>Cultivar Name</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Schubert</td>
<td>'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</td>
</tr>
<tr>
<td>Canada Red</td>
<td>'Canada Red' - small white flowers in hanging clusters 3-5&quot; 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</td>
</tr>
<tr>
<td>Boughen's Chokeless</td>
<td>'Boughen's Chokeless' - non-astringent fruit</td>
</tr>
<tr>
<td>Copper Schubert</td>
<td>'Copper Schubert' - copper leaves</td>
</tr>
<tr>
<td>Mini-Schubert</td>
<td>'Mini-Schubert' - compact, purple leaved form</td>
</tr>
<tr>
<td>Robert</td>
<td>'Robert' - red-purple leaves</td>
</tr>
<tr>
<td>Bailey Select</td>
<td>'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</td>
</tr>
<tr>
<td>Purple Jewel</td>
<td>'Purple Jewel' - hardy non-fruiting form; larger leaves than other cultivars; new growth turns a deep wine red, with gorgeous, soft, blue-mauve undersides</td>
</tr>
</tbody>
</table>
Photos

*Prunus virginiana 'Canada Red' - Habit*

*Prunus virginiana - Leaf*

*Prunus virginiana - Flowers*

*Prunus virginiana - Flowers*

*Prunus virginiana - Leaves*

*Prunus virginiana - Flowers*

*Prunus virginiana - Fruit*
Species: *Prunus ‘Snow Goose’*

Snow Goose Cherry

### Ornamental Characteristics

<table>
<thead>
<tr>
<th>Species: Prunus ‘Snow Goose’</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Size:</strong> Tree &lt; 30 feet</td>
</tr>
<tr>
<td><strong>Height:</strong> 20'</td>
</tr>
<tr>
<td><strong>Leaves:</strong> Deciduous</td>
</tr>
<tr>
<td><strong>Shape:</strong> upright when young, spreading with age</td>
</tr>
<tr>
<td><strong>Ornamental Other:</strong> profuse white flowers; orange fall color</td>
</tr>
</tbody>
</table>

### Environmental Characteristics

<table>
<thead>
<tr>
<th>Light: Full sun</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hardy To Zone: 5a</td>
</tr>
<tr>
<td><strong>Soil Ph:</strong> Can tolerate acid to alkaline soil (pH 5.0 to 8.0)</td>
</tr>
</tbody>
</table>

### Insect Disease

resistant to common cherry foliage diseases

### Moisture Tolerance

<table>
<thead>
<tr>
<th>Moisture Tolerance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Occasionally saturated or very wet soil</td>
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</table>

**Very Wet**

**Very Dry**
Photos

Prunus ‘Snow Goose’ - Habit

Prunus ‘Snow Goose’ - Habit, Fall Interest

Prunus ‘Snow Goose’ - Bark, Leaves, Fall Interest
**Species: Robinia pseudoacacia**  
(roe-bin'ee-ah sue-doe-a-kay'see-ah)  
Black Locust

### Cultivar Information

* See specific cultivar notes on next page.

### Environmental Characteristics

<table>
<thead>
<tr>
<th>Light:</th>
<th>Full sun</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hardy To Zone</td>
<td>4b</td>
</tr>
<tr>
<td>Soil Ph:</td>
<td>Can tolerate acid to alkaline soil (pH 5.0 to 8.0)</td>
</tr>
<tr>
<td>Salt Tolerance:</td>
<td>Tolerates salty soil</td>
</tr>
<tr>
<td>Environmental Other:</td>
<td>white, fragrant flowers in late spring; dark gray ropy bark; dark bluish green pinnately compound leaves</td>
</tr>
<tr>
<td>CU Structural Soil™:</td>
<td>Yes</td>
</tr>
</tbody>
</table>

### Insect Disease

borers can be a serious problem; leaf miners may also be problematic

### Bare Root Transplanting

Easy

### Other

native to east-central U.S. (Pennsylvania to Iowa, south to Georgia and Oklahoma); widely used in Europe as a street tree. Prohibited as INVASIVE in New York State

### Moisture Tolerance

<table>
<thead>
<tr>
<th>Very Wet</th>
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</tbody>
</table>
### Cultivars for *Robinia pseudoacacia*

Showing **1-11** of **11** items.

<table>
<thead>
<tr>
<th>Cultivar Name</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Bessoniana</td>
<td>'Bessoniana' - small; compact; well-branched; oval; spineless</td>
</tr>
<tr>
<td>Globe</td>
<td>'Globe' - small, spineless, &lt;30'</td>
</tr>
<tr>
<td>Frisia</td>
<td>'Frisia' (a.k.a. 'Aurea') - foliage emerges golden yellow, dulls in summer heat; red spines on new shoots; vigorous grower to 30' - 50' tall</td>
</tr>
<tr>
<td>Idaho</td>
<td>'Idaho' - possibly an R. x ambigua selection; tolerates difficult cultural conditions; cold tolerant to zone 3-4; rosy-pink blooms; grows to 40' tall x 30' wide</td>
</tr>
<tr>
<td>Purple Robe</td>
<td>'Purple Robe' (a.k.a. 'Rouge Cascade', 'Casque Rouge', 'Pink Cascade', 'Red Cascade') - possibly an R. x ambigua selection; compact rounded form; rose-pink flowers; grows to a 40' tree; new growth emerges bronzy-red and retains some undertones of this color into summer; forms fewer seeds than the species; flowers slightly earlier in the season</td>
</tr>
<tr>
<td>Pyramidalis</td>
<td>'Pyramidalis' (a.k.a. 'Fastigiata') - strongly upright, fastigiate, spineless form; grows to 50' tall x 15' wide</td>
</tr>
<tr>
<td>Semperflorens</td>
<td>'Semperflorens' - sporadic bloom after the initial late-spring flush</td>
</tr>
<tr>
<td>Umbraculifera</td>
<td>'Umbraculifera' - dense, umbrella-like, dwarf form; grows to 20' tall; produces few or no thorns; flowers very sparsely; prone to damage from ice and borer insects</td>
</tr>
<tr>
<td>Twisty Baby</td>
<td>'Twisty Baby' (a.k.a. 'Tortuosa', 'Lace Lady') - twisted, contorted branches and stems; often grafted; usually do not exceed 10' in height; flowering is sparse or non-existent</td>
</tr>
<tr>
<td>Chicago Blues</td>
<td>'Chicago Blues' (a.k.a. 'Benjamin') - upright form with an oblong crown; thornless; blue-green foliage; grow to 50' tall x 35' wide</td>
</tr>
<tr>
<td>Inermis</td>
<td>'Inermis' - thornless variety</td>
</tr>
</tbody>
</table>
**Species:** *Syringa reticulata*  
*(si-ring’gah reh-tick’yoo-ley-tah)*  
**Japanese Tree Lilac**

**Cultivar Information**

* See specific cultivar notes on next page.

<table>
<thead>
<tr>
<th>Ornamental Characteristics</th>
<th>Environmental Characteristics</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Size:</strong> Tree &lt; 30 feet</td>
<td><strong>Light:</strong> Full sun</td>
</tr>
<tr>
<td><strong>Height:</strong> 25' - 30' (spread 15' - 25')</td>
<td><strong>Hardy To Zone:</strong> 3a</td>
</tr>
<tr>
<td><strong>Leaves:</strong> Deciduous</td>
<td><strong>Soil Ph:</strong> Can tolerate acid to alkaline soil (pH 5.0 to 8.0)</td>
</tr>
<tr>
<td><strong>Shape:</strong> oval tree</td>
<td><strong>Salt Tolerance:</strong> Tolerates salty soil</td>
</tr>
<tr>
<td><strong>Ornamental Other:</strong> slow growing</td>
<td><strong>Environmental Other:</strong> large, cream colored flowers in late June; suitable for large containers; lustrous brown bark with horizontal lenticels similar to cherry bark; slow growth rate</td>
</tr>
</tbody>
</table>

**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

**Moisture Tolerance**

<table>
<thead>
<tr>
<th>Occasionarly saturated or very wet soil</th>
<th>Consistently moist, well-drained soil</th>
<th>Occasional periods of dry soil</th>
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</tbody>
</table>
## Cultivars for *Syringa reticulata*

Showing 1-7 of 7 items.

<table>
<thead>
<tr>
<th>Cultivar Name</th>
<th>Notes</th>
</tr>
</thead>
<tbody>
<tr>
<td>Summer Snow</td>
<td>'Summer Snow' - round, compact, 16', heavy flowering</td>
</tr>
<tr>
<td>Chantilly Lace</td>
<td>'Chantilly Lace' - leaves variegated with a pale creamy yellow perimeter</td>
</tr>
<tr>
<td>Cameo Jewel</td>
<td>'Cameo Jewel' - variegated form with yellow-cream splashed foliage</td>
</tr>
<tr>
<td>Ivory Silk</td>
<td>'Ivory Silk' - rounded form; stocky branch structure; blooms heavily, even when young; grows to 25' tall</td>
</tr>
<tr>
<td>Snowdance</td>
<td>'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</td>
</tr>
<tr>
<td>Snow Cap</td>
<td>'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</td>
</tr>
<tr>
<td>Regent</td>
<td>'Regent' - canopy grows more narrowly than other <em>S. reticulata</em> selections; grows vigorously; produces abundant white flower clusters in summer; grows 25 - 30' tall x 15' wide</td>
</tr>
</tbody>
</table>
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:** Any  
- **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

### Moisture Tolerance

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</table>
### Cultivars for *Zelkova serrata*

Showing 1-9 of 9 items.

<table>
<thead>
<tr>
<th>Cultivar Name</th>
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<tbody>
<tr>
<td>Green Vase</td>
<td>'Green Vase' - upright vase; fast grower; golden-orange fall color</td>
</tr>
<tr>
<td>Halka</td>
<td>'Halka' - upright vase-like form; most elm-like; better branch attachment; yellow fall color</td>
</tr>
<tr>
<td>Village Green</td>
<td>'Village Green' - vase; shorter than other cultivars; fast grower; rusty red fall color</td>
</tr>
<tr>
<td>Musashino</td>
<td>'Village Green' - vase-like form; shorter than other cultivars; fast grower; rusty red fall color</td>
</tr>
<tr>
<td>Schmidtlow</td>
<td>'Schmidtlow' (a.k.a. 'Wireless') - vase-shaped form; grows to 30' tall</td>
</tr>
<tr>
<td>City Sprite</td>
<td>'City Sprite' (a.k.a. 'JES-KW1') - oval to vase-shaped form; grows to 30' tall</td>
</tr>
<tr>
<td>Goshiki</td>
<td>'Goshiki' - variegated form, leaves splashed or dusted with creamy white</td>
</tr>
<tr>
<td>Variegata</td>
<td>'Variegata' - variegated form with white rimmed leaves; weak grower</td>
</tr>
<tr>
<td>Spring Grove</td>
<td>'Spring Grove' - vase-shaped, tight branching form; a rival for 'Village Green'; ornamental superior; dark green leaves with red fall color; attractive peeling bark; grows to 80' tall x 60' wide</td>
</tr>
</tbody>
</table>