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**Gardener**

NC STATE UNIVERSITY NORTH CAROLINA COOPERATIVE EXTENSION

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Gardening,  
Manage Their  
Landscape  
Investment &  
Protect the  
Environment

JC Raulston Arboretum Plant Focus

Focus on Form and Foliage with Japanese Maples

Japanese maples (*Acer palmatum*) have eye-catching appeal with colorful foliage, beautiful branching and attractive leaves. Used as shrubs or small trees, Japanese maples make great focal points for any garden.

Some cultivars display foliage that emerges purple to red in the spring, changes to green in summer's heat and turns shades of red again in the fall. Others emerge in shades of green and remain that way until fall, when they take on shades of red. Colors can be less intense if the plants are grown in deep shade.

Japanese maple leaf shapes add contrast in a garden. Cultivars fall mainly into two groups: those with *dissected* (or finely cut) leaf margins and those with *nondissected* leaves (fewer "cuts" along the edges).

Japanese maples can be grown as single- or multi-stemmed specimens. Pruning can create branch structures that bring interest to a winter garden. Branches spread from the trunk in a rounded shape, with many forming layers that can provide shade to other plants. Size and rate of growth vary with cultivar. Many dissected types, such as 'Crimson Queen', reach only 8 feet in height. 'Bloodgood', a very popular nondissected variety, can reach a height of 15 to 20 feet. Japanese maples usually grow no more than 1 foot annually.

Hardy in USDA Zones 5 through 8, Japanese maples prefer dappled light or afternoon shade. Summer heat can scorch the leaves in full sun, and exposure to drying winds can have adverse effects. Drought and heat can adversely stress these plants, but specimens planted in moist, well-drained soils will have an advantage. A 2- to 3-inch layer of pine straw or bark mulch will help keep soils moist and cool.

Japanese maples have few pest problems. Aphids may appear on new growth. Leaf spots and branch dieback can affect these trees but rarely kill them outright. Keeping maples mulched and watered will help them avoid most problems. A soil test every two to three years will tell you how much, if any, fertilizer they might need.

Whether you're looking for a small tree or a midsized shrub, a Japanese maple can be an exciting focal point for your garden. **Jeff Rieves**



*Acer palmatum*  
(*dissectum atropurpureum* group)  
JC Raulston Arboretum ©

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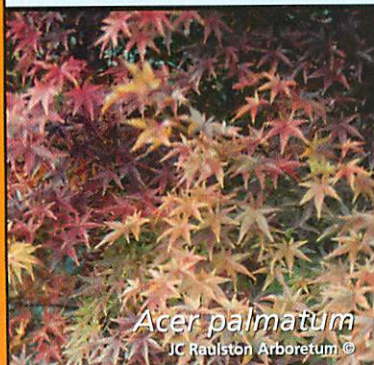


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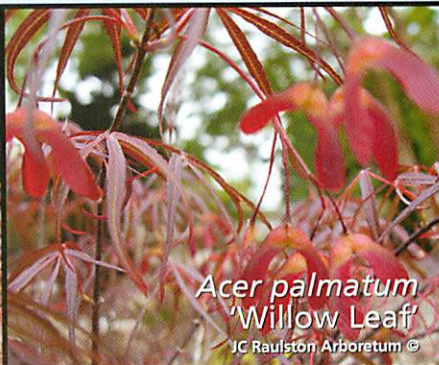
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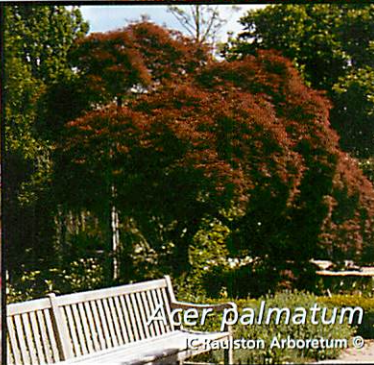
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*Acer palmatum*  
JC Raulston Arboretum ©



*Acer palmatum*  
'Willow Leaf'  
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*Acer palmatum*  
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*Cornus mas*



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*Koelreuteria paniculata*



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*Chionanthus retusa*  
'Ivory Tower'



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*Cotinus coggyria*

## Under-Used Small Trees

A small tree is one that grows 15 to 20 feet tall with a 6-foot central axis. Multi-stemmed trees, such as crape myrtles, are also considered small trees. They can be used as specimens, accent trees, and street trees under power lines. While crape myrtles and dogwoods are popular, many less common small trees can add interest to the garden.

Specimen trees grab our attention. Used sparingly and placed carefully, they enhance views in the garden year round. *Betula nigra* 'Summer Cascade' (20 feet tall × 15 feet wide) is a weeping river birch with exfoliating bark. It tolerates both wet and dry conditions. *Acer palmatum* 'Sango Kaku' (20 feet tall × 15-feet wide) is a Japanese maple with coral-red bark in winter and palmate golden leaves in fall. It grows in full sun to part shade and will tolerate drought once established. *Taxodium distichum* 'Cascade Falls' (8 feet tall × 5-feet wide) is a weeping bald cypress that grows well in full sun and withstands wet and dry conditions.

Accent trees draw our attention for a season or two and provide a backdrop for other plants. *Chionanthus retusus* (20 feet tall × 15 feet wide) is an upright fringe tree with white strap-like flowers in spring and glossy foliage in summer. It grows in full sun to partial shade and will tolerate drought once established. *Cornus* 'Rutban' Aurora® is a cross between our native flowering dogwood and the kousa dogwood. It has white flowers like its parents but blooms a little later in mid-spring,

Aurora resists dogwood anthracnose and powdery mildew and has spectacular red fall foliage but does not produce fruit. *Cotinus coggyria* (15 feet tall × 10 feet wide) is a smoke tree that produces cloud-like pink flowers in spring and purple fall foliage. It grows in a wide range of soils and tolerates drought once established.

Small trees can make great street trees where overhead power lines loom if they are large enough to define the street yet small enough not to interfere with power lines (which can be as low as 30 feet).

*Robinia psuedoacacia* 'Glode' (20 feet tall and wide) is a black locust with a round habit and yellow fall foliage. It is fast growing and drought tolerant once established. *Koelreuteria paniculata* (30 feet tall and wide) is a rounded goldenrain tree with yellow flower clusters in summer and papery capsules that persist through winter. It has

a medium to fast growth rate and tolerates drought once established. *Cornus mas* 'Golden Glory' (20 feet tall and wide) is an upright cornelian cherry dogwood with small yellow flowers in late winter and reddish-purple fall foliage. It tolerates full sun to partial shade and exfoliates its bark at maturity.

For a more comprehensive list of small trees suitable for North Carolina, visit <http://www.ces.ncsu.edu/depts/hort/consumer/quickref/trees/smalltrees.html>. Plant something different in the garden.

*Michelle Wallace*

*While crape myrtles and dogwoods are popular, many less common small trees can add interest to the garden.*

## Planting Trees Properly

The first step to planting a containerized or balled-and-burlapped (B&B) tree is digging a hole at least two to five times the width of the root ball but no deeper than its height. Amend the soil with organic matter only if a large bed is being prepared, if the soil is sandy and excessively well drained, or if drainage in the area is poor, in which case other measures may be needed. If organic matter or potting soil is used in a planting hole in clay soil, water may pool at

the bottom and cause root rot or suffocation. Mix needed lime and phosphorus with the soil, but do not add nitrogen fertilizer.

The roots of containerized plants should be loosened or cut if they are circling the root ball. For B&B trees, cover natural burlap with soil but remove synthetic or preservative-treated burlap and wires, straps, or strings. Remove or fold down the top half of the wire basket.

see Planting Trees Properly on page 3 ▶

## Q&amp;A

## How Do I Protect My Trees During Construction?

Trees damaged by construction don't

always show the effects until after the builders have already moved on. Significant damage to the roots often results in structural failure and may show up 10 to 20 years later. Other construction injuries are quite noticeable and may affect the trees' performance for years to come.

It is important to protect trees throughout the entire construction phase. Obvious injuries include broken limbs, stripped bark and split trunks. But other more indirect injuries are not so easily noticed. They include soil compaction, changes in soil drainage or soil fertility (or both) and deposits of fill materials that will affect future growth.

Construction impacts need to be managed. Use a professional to assess the trees

prior to beginning of the job. Plans should include accurate and precise locations for the trunks, crowns, and major soil areas colonized by the roots. Define construction danger zones and tree protection zones. Provide adequate space for these areas. One rule of thumb is to allow 1 foot from the base of the trunk for every inch of trunk diameter; the larger the space the better. Also strive to minimize damage and eliminate potential problems.

Limit construction machine access, material storage, rinsing of potential contaminants, vehicle parking and site-office location. It may be necessary to protect the trees with fences and retaining walls or other methods to protect the root zone. Insure your trees' future by limiting access, mulching high traffic areas and minimizing soil disturbance. **David Barkley**

## Planting Trees Properly

*continued from page 2*

When replacing soil, form a short dam under the tips of the branches to keep water in the root zone while the tree is getting established, and apply 2 to 4 inches of mulch, keeping it away from the trunk. Water trees well before and after planting, and see that trees get 1 inch of water per week during their first year.

Containerized and B&B trees can be planted any time, but late fall to early spring is preferred because their water demand is lower.

**Mary Helen Ferguson**



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## ENVIRO-TIP

### Lasagna Composting

Lasagna composting saves time because it relies on layers arranged to help materials decompose fast and evenly.

*Brown layers* consist of carbon-rich materials, such as straw, dried leaves, and sawdust, that act as critical food sources for decomposers. The dry brown layers control moisture and also tend to be coarser than the other layers, allowing air in and excess water out. Because the brown layers filter out food smells, they help to protect the pile from pests.

*Green layers* consist of food scraps, grass and garden clippings, and manure. These nitrogen-rich materials are vital food sources for decomposers. To prevent pests, do

not include meat, oil materials or dairy products.

To build a compost pile alternate brown layers with green. Always end with a brown layer. Green layers should be 1 to 2 inches thick, while brown layers need to be 3 to 6 inches thick. Keep green layers from the edge to protect the layers.

Turn the pile to speed up decomposition. The bottom layers will be done before the top. To harvest the finished compost, remove the top layers and place that material in a new bin. The weather, size of your bin and other factors will determine how long composting takes. Most piles take about a year to finish. Happy composting! **Shauna Haslem**



JC Raulston Arboretum ©

## Gardentalk



*The sweet calm sunshine of October, now warms the low spot; upon its*

*grassy mould The purple oak-leaf falls; the birchen bough*

*Drops its bright spoil like arrow-heads of gold.*

**William Cullen Bryant**  
October (1866)



## Gardening in October

### Ornamentals

- Cool-season fescue and fescue-bluegrass lawns can be seeded early this month.
- Continue to fertilize cool-season fescue lawns this month for optimum growth.
- Continue to plant for seasonal color with pansies, Panolas® (registered crosses between pansies and violas), chrysanthemums and asters.
- It's also time to select and plant spring-flowering bulbs, such as tulips, daffodils, hyacinths and crocuses. Browse catalogs to decide which bulb varieties you want to add in the spring.
- Now is the time to move houseplants indoors before outdoor temperatures reach 38°F. Insects are usually harbored in the soil. Take a few days before bringing houseplants indoors to treat for insects.
- Dahlias, gladioli bulbs and other tender summer-flowering bulbs need to be dug and stored this month.

### Vegetables

- October is an excellent time to plant cover crops for spring vegetable gardens. Clover, oats, barley and rye are excellent cover crops for spring vegetable gardens. Cover crops provide organic matter and improve the workability of tight clay soils.
- Cole crops such as broccoli, cauliflower, cabbage and turnips can be side-dressed this month with a complete fertilizer. Cole crops have unusually sparse root systems and need continuous fertilization for maximum growth.
- Leaves are falling, and it's an excellent time to start a compost pile for use on the vegetable garden in the spring. Shredded leaves break down quicker by adding kitchen scraps (excluding meats, bones, fat and grease), grass clippings and manures. Add water and turn frequently for dark, fluffy compost.

**Darrell Blackwelder**

### Waterwise Garden, NC State Fairgrounds

Wake County Master Gardeners designed, developed and maintain this garden, which was planted in 2004 to demonstrate waterwise landscaping practices, including plant selection, efficient irrigation, and mulching.

The garden site is an embankment between the Heritage Village and the corner of the Flower Show at the fairgrounds, chosen to capture the attention of some 800,000 fairgoers. A stone walkway, seating, and instructional signage provide a spot for visitors to enjoy the garden and learn about waterwise practices. Labeled ground covers, ornamental grasses and woody ornamentals create a peaceful garden spot in the midst of a sometimes-chaotic State Fair. A small rain garden was added in 2006.

For more information about waterwise principles, see [www.ncwaterwise.info](http://www.ncwaterwise.info). And visit us at the State Fair!

**Carl Matyac**

Garden Spot

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- ▶ N.C. & National Associations of County Agricultural Agents
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