

Helping
Carolinians
Increase Their
Knowledge of
Gardening,
Manage Their
Landscape
Investment &
Protect the
Environment

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JC Raulston Arboretum Plant Focus

Tulip Poplars for Large and Small Landscapes

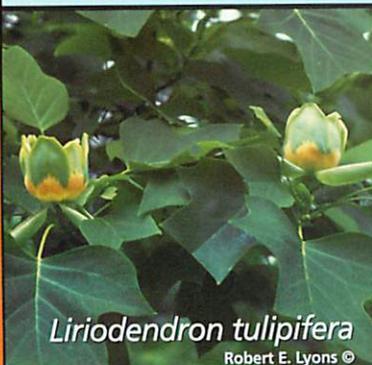
The genus *Liriodendron* consists of two species of large deciduous trees. *Liriodendron tulipifera* is native to eastern North America, and *L. chinense* is native to China and Vietnam. Commonly called tulip poplar, *Liriodendron* is in the *Magnolia* family and is not a true poplar. It is sometimes called tulip magnolia, whitewood, tuliptree and yellow or white poplar.

The tree gets its name from its greenish-yellow flowers with orange markings that resemble a tulip at first glance. Upon closer inspection, similarities to the genus *Magnolia* will be apparent. Mature trees sometimes display pyramidal forms, but more typically tend to produce a broad, symmetrical columnar shape in open areas. Flowers form about 15 years after planting on trees started from seed. Plants propagated by cutting or by grafting from mature trees flower much faster, typically in two to three years. Large, multilobed leaves turn a striking gold in the fall. During drought they may prematurely turn yellow and defoliate. This stately tree prefers full to partial sun in deep, fertile, moist soils.

Characterized by rapid growth, tulip poplars range between 50 to 70 feet high, but can grow over 100 feet tall and 40 feet wide with trunk diameters up to 4 to 8 feet. This is not a tree for small landscapes, though a few cultivars are available for the typical small suburban yard. *L. tulipifera* 'Arnold' is the same tree as 'Fastigiatum'. Named after the Arnold Arboretum, 'Arnold' forms a neat, narrow, flat-topped column, maturing to 60 feet high and 20 feet wide. Well adapted to North Carolina (Zones 6 to 8), this cultivar may show a few problems, including narrow crotch angles, which can result in branch splitting, and leaf miners. Visitors to the JC Raulston Arboretum (JCRA) will find a specimen of 'Arnold' to the west of the McSwain Education Center.

L. tulipifera 'Ardis', the littleleaf tulip poplar, is an excellent choice for compact landscapes. Reduced in both leaf size and stature, this tree can be spotted growing near the JCRA parking lot. Other compact forms of tulip tree have recently been discovered, so expect some new cultivars in a few years. **Aaron Lancaster**

*Liriodendron
tulipifera*
Robert E. Lyons ©



Liriodendron tulipifera
Robert E. Lyons ©



Liriodendron chinense
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Liriodendron tulipifera
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Terrariums, A Project for the Entire Family

Children of all ages will enjoy creating terrariums, a fun, easy gardening project for the entire family and for any time of year. A terrarium is an indoor garden consisting of a grouping of plants growing in a glass or plastic container. The glass or plastic allows light to reach the plants and protects the plants from temperature changes and drafts.

Getting Started

Gather these items for your terrarium:

- a container
- porous soil
- drainage material such as gravel
- plants
- decorative accessories (optional)

Step 1 – Container Options

It is best to use a clear glass or plastic container. Tinted or cloudy glass reduces the amount of light the plant receives. The terrarium will provide a high humidity atmosphere. The terrarium may or may not have a lid. A lid will increase the humidity level and prevent the water or condensation from escaping.

The size of the container will depend on the number of plants and accessories you have for your terrarium. Containers might be glass fish bowls, a gallon jar, candy jar, aquarium, plastic drink bottle, an old mason jar or an apothecary jar. Wash the container thoroughly both inside and out.

Step 2 – Gravel for Drainage

Wash the gravel and then place it into the terrarium in a layer to cover the bottom of the container. To add interest and a design element, use colored gravel.

Step 3 – Soil and Slopes

Moisten the soil and add to the height level that will complement the planting. You may slope the soil for a more interesting garden. About one-fourth of the terrarium's volume should be soil and drainage material. Do not use packaged soil with fertilizer already in the soil. You usually will not need to apply fertilizer. Applying fertilizer in the enclosed area with no outside drainage can cause a build-up of excess salts and kill the plant roots.

Step 4 – Picking Plants

When choosing the plants for your terrarium, remember to use plants that like the same growing conditions. A good suggestion is to do your first terrarium with houseplants such as small ferns, philodendron, peperomia or creeping fig. There are many other houseplants from which to choose. Remember to select plants that suit the container, have a low and dense growth habit and are suited for the location. You can decide to go with a desert or tropical theme and choose plants accordingly.

Before adding the plants, practice arranging the selected plants in an open area the size of the container. This will give you an idea of the design, size and textural patterns. Take the plants from their pots and very carefully remove any excess soil to expose the roots. Remove any damaged or yellow leaves. You can use a spoon to make a hole in the soil for the plants. Carefully place the plant in the hole and cover the roots with soil. Try not to have any of the plant leaves touching the side of the terrarium as this may cause excessive water on the leaves and lead to disease.

Step 5 – Finishing Touches

Use a soft paint brush to remove any soil that may have gotten on the leaves while planting.

After planting, water very lightly. Use a turkey baster or something similar to water the plants. Do not overwater as excess water can cause root rot and other problems. A terrarium with a lid may need watering only every 4 months. One without a lid needs to be examined for watering needs every 2 weeks.

Most terrariums will need diffused light, not direct sunlight. Terrariums with houseplants and tropical plants like a temperature of about 78 degrees F during the day and 68 degrees F at night.

To add "personality" to your terrarium, consider accessories like colored rocks, seashells, jewels and ceramic figures.

Contact your local Cooperative Extension Center to learn more about other science-related projects and the 4-H youth development program. Visit www.ces.ncsu.edu.

Emily Revels





How can I get rid of English ivy?

English ivy can be an unruly evergreen climbing vine that attaches to the bark of trees, brickwork and other surfaces around homes. Although English ivy is now considered to be invasive throughout North Carolina and the United States, it is still a popular landscape plant choice. When trying to control English ivy, standard glyphosate products sold at home improvement stores will likely be too diluted for effective control. Look for stronger glyphosate products sold under the brand names Accord, Rodeo or Roundup PRO Concentrate.

Application technique options include applying the chemical to a freshly cut stem.

The vines will eventually die with time. If the remaining vines are climbing into trees, they must be removed or they will look quite unsightly. Another method is foliar application of glyphosate with a non-ionic surfactant added at the rate of 0.5 to 1.0 percent. It's best to use this technique in the spring when new leaves emerge.

The final removal method option is for those with a strong back and a lot of patience. Manual removal involves repeatedly cutting off the vines at ground level until all energy from the root system is exhausted. Keep in mind that this option will likely result in vigorous regrowth. Dedication is required to ensure long-term control. **Diane Ashburn Turner**

ENVIRO- TIP

Protect Water Quality with Proper Fertilizer Use

Fertilizer can provide essential nutrients to maintain optimum turf-grass growth, resulting in a lawn that is able to recover from insect and disease attacks. A healthy lawn also will compete better with weeds, thereby reducing the need for pesticides. However, it is important that the nutrients applied on the lawn stay in place and do not contaminate streams, lakes and rivers. Follow these guidelines to have a healthy lawn and maintain water quality.

Soil Test: A soil test will determine the amounts of nutrients needed.

Slow Release: Apply fertilizers that are composed of slow-release sources of nitrogen. These sources are made so that the nitrogen is metered out slowly to the grass. Avoid applying fertilizers where sandy soils are prevalent, near surface water or where the water table is shallow.

Apply water-soluble or quick-release fertilizer sources at half the recommended rate in two applications about 10 days apart

to lessen the chances of water contamination. Water lightly immediately following application to wash the material into the soil where the nutrients can be used by the grass plants. This will also reduce the potential for surface runoff.

Water Slowly: Water with light, frequent applications on slopes immediately following fertilizer application to reduce runoff. When working with slopes, natural drainage areas or soil that is compacted, allow water time to penetrate. You may need to aerate the soil.

Drop Spreaders: Use a drop-type (gravity) spreader rather than a centrifugal-type (rotary) spreader near water to minimize the possibility of fertilizer entering the water.

Shut off the spreader when passing over unplanted or bare ground surfaces. Fill spreaders over hard surfaces for easy cleanup. Make sure to sweep fertilizer on driveways and walks onto the lawn.

Carl Matyac

Extension's



- ▶ **September 17, 2-4 p.m.**
 - Winter Color in the Garden
 - Doris Duke Center of the Sarah P. Duke Gardens, 426 Anderson St., Durham
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 - Call (704) 336-4006



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gardentalk



"Gardening has a magical quality when you are a child."

Barbara Damrosch



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Gardening in September

Lawns

- Fertilize cool-season lawns to encourage healthy growth. Some warm-season grasses such as centipede will benefit from an application of 0-0-50. Refer to Extension's Lawn Maintenance Calendar for your turf species.
- Henbit, chickweed, wild onions and other winter annual weeds will begin growing soon. Start preemergence weed management programs in mid-September to prevent their appearance this winter.
- Check and treat for grubs in the lawn.

Ornamentals

- Botrytis (gray mold) season begins now on roses. While fungicides work well before diseases appear, sanitation is the key to disease management. Rake and remove fallen leaves and blooms. Mulch with well-composted material.
 - Resist the urge to prune at this time. Fall pruning depletes food reserves needed to initiate spring growth. Open wounds also are more likely to become infected by decay organisms.
 - Fall is for planting! Get started now with woody ornamentals, fruit trees, pansies, chrysanthemums and other cool-season annuals. Order spring-flowering bulbs to plant next month.
 - Learn to use a hand lens, then scout for cool-season mites on needled evergreens. If necessary, treat with horticultural oil or insecticidal soap to prevent brown needles next spring.

Edibles

- Fertilize strawberry plants to improve quality and yield next spring.
- Treat peach, plum and nectarine trunks for the destructive peach tree borer.
- Plant cabbage, kale, collards, broccoli, lettuce, radishes and other cool-season vegetables.

Mike Wilder

Garden Spot

North Carolina's largest and most popular horticultural display is not to be found in any garden made by human hands. It's the **fall foliage** that dazzles many a tourist in the western part of our state.

A drive along the Blue Ridge Parkway is always a good bet, but you may want to do a little more research before you go to find out the best locations for color at a given time. Visit www.visitnc.com for their fall color updates. Another helpful site is www.exploreasheville.com/leafreports.htm.

Don't limit yourself to just driving through good foliage areas. There are many hiking trails off the Blue Ridge Parkway and in other areas where you can soak in the beauty at a much slower pace while you get some exercise. Another great way to see the leaves is a train trip. The Great Smoky Mountains Railroad (www.gsmr.com) offers a number of different trip options. Just don't miss the show. This one is held just once a year and has a limited run. *Kevin Starr*

Abelia chinensis
Robert E. Lyons ©

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- ▶ Garden Writers Association
- ▶ International Association of Business Communicators
- ▶ N.C. & National Associations of County Agricultural Agents
- ▶ Southern Extension Forest Resource Specialists
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