



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

JC Raulston Arboretum Plant Focus

Evergreen Oaks: Hearty Trees for the South

Evergreen oaks in North Carolina were traditionally almost entirely used in the coastal plain, lower piedmont and Sandhills. Although typically described as being adapted to USDA hardiness zones 6 through 9, their performance and growth rate is by far better in warmer climates. One way to interpret the effects of hardiness zones on evergreen oak performance is to observe the height and width range of various species in addition to growth rates. Outside of a species' optimum climate and hardiness zone, expect the lesser size and growth rate.

The smallest of the evergreen oaks is the Japanese oak (*Quercus acuta*), which ranges from 20 to 30 feet tall and 15 to 20 feet wide. Our largest evergreen oak is the native live oak (*Quercus virginiana*), ranging from 40 to 80 feet high and spreading 60 to 100 feet wide. In between these two species are the blue Japanese oak or ring-cupped oak (*Quercus glauca*), Chinese oak (*Quercus myrsinifolia*), ubame or ubamegashi oak (*Quercus phillyreoides*), Monterrey oak (*Quercus polymorpha*), and the Mexican oak (*Quercus risophylla*).

A variant of the ubame oak has been assigned the cultivar name 'Emerald Sentinel'. Michael Dirr favors this one for its hardiness and offers these comments: "Introduced by the JC Raulston Arboretum in North Carolina for its upright habit, fast growth, showy catkins, and ease of rooting." The leaves are quite handsome because the new growth emerges as a bronze red color. It demonstrates excellent tolerance to heat and drought.

Evergreen oaks, especially the small ones, have potential for greater use in the landscape as specimen trees, screens and windbreaks. Wildlife observers will enjoy their presence as habitats for turkey, deer, ducks, quail and songbirds. Expect some minor but not life-threatening problems from pests. As with many oaks, expect to see leaf spots, galls, scale, cankers, caterpillars and possibly mistletoe. In areas with snow and ice accumulations, you may see excess limb breakage because of heavy foliage.

Visit the JC Raulston Arboretum to see a variety of evergreen oak species.

Donald Breedlove

*Q. virginiana*  
JC Raulston Arboretum ©

inside

2

Select and Protect for a Green Winter Menu

3

Enviro-Tip

4

Garden Spot



*Q. phillyreoides*  
'Emerald Sentinel'  
JC Raulston Arboretum ©



*Q. polymorpha*  
JC Raulston Arboretum ©



*Q. glauca*  
JC Raulston Arboretum ©



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*Any discussion of winter vegetables has to include lettuce.*



JC Raulston Arboretum ©

*Protecting winter vegetables with row covers extends the harvest.*



USDA - ARS

*Collards and other members of the Brassica family tolerate cold.*



USDA - ARS

*Other crops for winter include Swiss chard.*

## Select and Protect for a Green Winter Menu

Proper plant selection *and* protection will allow you to grow vegetables that can really enhance winter menus.

First, choose appropriate vegetables. The brassica family shines. Radishes tolerate temperatures down to 15°F. Cabbage, broccoli, cauliflower and turnips will live at 10°F, while collards and kale will tolerate more cold. Just because a plant stays alive, doesn't mean it grows. All our winter vegetables require temperatures over 40 or 45°F to grow. Typically, we plant brassicas to grow in the fall and stay fresh during winter, even if they are growing very little.

Some greens outside the brassica family also make good winter vegetables. Endive and spinach tolerate low temperatures and often over-winter here. Any discussion of winter vegetables has to include lettuce, which is hardy to around 24°F. Other leafy crops for winter include Swiss chard, rated as hardy to 20°F. Corn salad has a mild taste suitable for salads and can be hardy down to 8°F. It grows wild in February and March. Miner's lettuce is another winter green that can add flavor to winter salads.

Some root crops will grow in the fall and provide a harvest all winter, including carrots, onions, parsnips and Jerusalem artichokes. Fava beans will tolerate fairly cool temperatures if planted in September or October.

Protecting these vegetables will extend the winter harvest. The simplest protection is a floating

row cover. This can give 2 degrees of protection in the spring and up to 8 degrees in the fall on tender vegetables. Where a floating row cover really shines is on frost-hardy vegetables. Lettuce, which can be damaged at 24°F, can survive temperatures as low as 5 or 10°F under a row cover.

Tunnels and cold frames provide more protection than row covers. These are support structures covered with plastic or other materials.

The difference between high tunnels, low tunnels and cold frames is vague. If it is high enough to walk in, it is a high tunnel. If it can't be walked in but covers a long row, it is a low tunnel. Anything else can be called a cold frame.

A tunnel can be covered by a floating row cover or plastic. If plastic is used, you can get several more degrees of protection, but you have to manage it to prevent over-heating.

A high tunnel resembles a greenhouse but isn't heated. Low tunnels and high tunnels provide similar protection. One layer of plastic bumps the climate up one zone. High tunnels are more expensive but make it easier to manage the crop. Cold frames or low tunnels can be placed inside a high tunnel. This can provide the equivalent of two additional hardiness zones.

We can grow food here all winter if we select the right vegetables to plant. Add winter protection to really extend your winter harvest.

**David Goforth**

*We can grow food here all winter if we select the right vegetables to plant.*

## Orchid Sitting and Lovable Lichens

Tropical orchids make great houseplants because they are quite adaptable to most indoor home temperatures. One problem that many people experience is getting orchids to bloom again after their initial flowering upon purchase. Even the greenest of thumbs will no doubt tell you they just cannot seem to get their orchids to bloom again. So what do you do with an orchid that doesn't want to re-bloom? One solution is to find an orchid sitter. An orchid sitter, usually a

small nursery owner or orchid grower, will often offer the service of caring for your orchid after it has bloomed out. Expect a fee for this service. Check with the outlet where you have purchased orchids to see if they offer this service or if they know of growers who do.

Lichens are fascinating organisms. They are not classified as single organisms like plants, fungi and algae. A lichen is actually two or

see **Orchid Sitting** on page 3



## Q&amp;A

**"One Call" Before Construction Prevents Line Breaks**

North Carolina One Call (NCOC) is a program that puts homeowners and contractors, and anyone else dealing with excavations, in touch with utility companies to prevent underground utility lines from being cut. If you are planning on digging in your yard or hiring someone to do work that involves digging, call this service to protect your utility lines.

When a call is placed, NCOC will notify its members, the utility companies, who will send personnel out to locate underground utilities free of charge. You will be given a list of member companies that NCOC will contact.

If you have an underground line with a utility company that is not listed, it is

your responsibility to call that company to locate a line.

This service saves everyone money and time. If a utility line is cut, the service that the line provides is interrupted and it is costly to repair the cut. The homeowner and any contractors involved lose valuable time. The NCOC number is toll-free, and operates locate requests Monday through Friday from 6 AM until 10 PM, and on Saturday from 8 AM until 4 PM. (They do have emergency call-outs for special circumstances from 5 PM until 5:59 AM Monday through Friday, and all day Saturday and Sunday.) To use the service, call 1-800-632-4949. Save precious time and money before any excavation project!

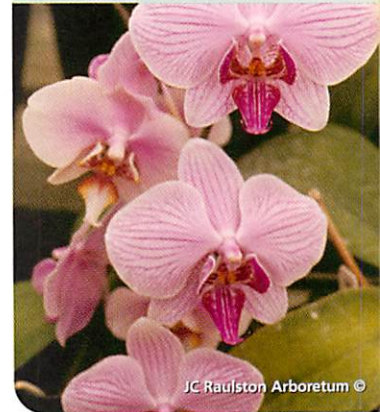
*Shauna Haslem*

**Orchid Sitting**

*continued from page 2*

more separate organisms living permanently together. A typical lichen is composed of a fungal partner and either a cyanobacterium or an algal partner. You can find these prehistoric looking organisms forming irregular three-dimensional structures in a variety of colors – gray, green, yellow and sometimes orange. The most common place you see lichens growing is on older structures, such as stone walls, older buildings, graveyards and mature trees.

*Scott Ewers*



JC Raulston Arboretum ©

**ENVIRO-TIP****Orchard Sanitation Can Reduce Pesticide Use**

Growing fruit and nut trees can be an intensive endeavor. Our high humidity and hot summers lead to many disease and insect problems. Practicing good sanitation is an easy way to reduce pesticide use. Sanitation is a cultural control for both insects and diseases.

During the harvest season, pick all fruit before it becomes over-ripe. All ripe fruit should be picked and removed from the orchard. This helps reduce many disease and insect problems for later-ripening fruit and for next year.

During the growing and dormant seasons, remove and burn or bury dead, diseased and damaged wood and fruit as soon as possible. Disinfect pruning tools with a 10 percent solution of a household disinfectant (such as Lysol or bleach) before and after use and between trees.

Household disinfectants won't corrode tools or ruin clothing.

The oriental fruit moth is a pest of peaches, plums and cherries that over-winters as a mature larva encased in a cocoon. These cocoons can be found in peach mummies and other debris on the ground and beneath the bark on tree trunks.

Apple scab, pear scab and pear leaf spot are fungal diseases that over-winter on dead leaves. After the harvest, rake and remove any fallen leaves, branches and fruit from the orchard floor. Do not use leaves as mulch. Infected leaves, wood and fruit can provide a winter habitat for insects and disease organisms.

Although sanitation will not completely control these problems, it can help keep pest and disease levels at a manageable or tolerable level.

*Amy Lynn Albertson*



JC Raulston Arboretum ©

**Gardentalk**

*"Two sounds of autumn are unmistakable, the hurrying rustle of crisp leaves blown along the street or road by a gusty wind, and the gabble of a flock of migrating geese. Both are warnings of chill days ahead, fireside and topcoat weather."*

**Hal Borland**  
(1900 -1978)



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**Successful Gardener**<sup>®</sup> Editor  
Department of Communication Services  
Box 7603, NC State University  
Raleigh, NC 27695-7603

Editor and Team Leader: **Lucy Bradley, Ph.D.**  
Extension Specialist, Urban Horticulture

Account Coordinator: **Rhonda Green**  
Department of Communication Services

Assistant Editor: **David Goforth**  
Consumer Horticulture Agent, Cabarrus County

Compilations Editor: **Will Strader**  
Agricultural Extension Agent, Franklin County

Contributors:		
County	Name	Phone
Alamance	Mark Danieleley	(336)570-6740
Brunswick	David Barkley	(910)253-2610
Burke	Donna Teasley	(828)439-4460
Cabarrus	David Goforth	(704)920-3310
Catawba	Fred Miller	(828)465-8240
Cumberland	Shauna Haslem	(910)321-6870
Davidson	Amy-Lynn Albertson	(336)242-2091
Durham	Michelle Wallace	(919)560-0525
Forsyth	Craig Mauney	(336)703-2850
Gaston	Mark Blevins	(704)922-2112
Henderson	Diane Turner	(828)697-4891
Iredell	Donald Breedlove	(704)873-0507
Mecklenburg	Scott Ewers	(704)336-4008
Nash	Mike Wilder	(252)459-9810
Orange	Carl Matyac	(919)245-2062
Randolph	Mary Helen Ferguson	(336)318-6003
Rowan	Darrell Blackwelder	(704)216-8970
Union	Jeff Rieves	(704)283-3741

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## Gardening in November

### Piedmont and Mountains

- Turf reseeded in late summer can benefit from topdressing lightly with 10-10-10. Established cool-season lawns need 1 pound of nitrogen/1,000 sq ft this month for a fall treatment.
- Keep fallen leaves from accumulating on newly seeded lawn areas. Germinating grass seeds need all the light and air they can get. A heavy layer of leaves won't take long to kill new grass!
- Plant spring flowering bulbs. Choose the right cultivars for your area to ensure success.

### Coastal Plain

- Coastal lawns will soon be dormant. Continue to mow, rake leaves and water during dry spells.
- Delay planting of spring bulbs until December.

### All Regions

- Soil preparation is a must for winter annuals and spring-flowering bulbs. Till deeply to eliminate compaction problems. Incorporate topsoil, organic matter and lime before planting. Finish with a 2- to 3-inch layer of mulch.
- Continue planting container-grown ornamentals. Loosen the roots and the media before backfilling. For slightly pot-bound roots, cut on three or four sides, shake the roots and media to a loose condition and plant.
  - Recycle mums into the perennial border. Keep watered and fertilized. Cut back next spring, and you'll have a fine display next fall.
  - Pinch tops of pansies and snapdragons to remove stocky growth. Lantana should be pruned to one-third its height and spread. Top-heavy roses may be pruned lightly.
  - Tip prune ornamentals. Many evergreens are used in seasonal decorations for both the foliage and berries. Favorites include the holly species, nandinas, pines and cedars. Delay heavy pruning until late winter. Heavy pruning now would cause tender growth that would be prone to cold injury.
- Garden tools will benefit from a good cleaning and proper storage.

**Darrell Blackwelder**

### Joyce Kilmer Forest

Veterans of the Foreign Wars asked the government to set aside a stand of trees in western Graham County to serve as a memorial to Joyce Kilmer, a soldier and a poet. He is most remembered for his poetry about common, beautiful things in nature.

A walk through Joyce Kilmer Memorial Forest is a journey back in time through a magnificent forest with towering trees as old as 400 years. Some enormous yellow-poplars are over 20 feet in circumference and stand 100 feet tall. The floor is carpeted with wildflowers, ferns and moss-covered logs. The forest is beautiful in all seasons. The only way to see this impressive forest is on foot. The figure-8 Joyce Kilmer National Recreation Trail covers 2 miles and has two loops: the 1 1/4-mile lower loop passes a memorial plaque, and the upper 3/4-mile loop swings through Poplar Cove, a grove of the largest trees. For more information, see <http://www.grahamcountytravel.com/>.

**Diane Turner**

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