



Extension Gardener

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Empowering
gardeners.
Providing
garden
solutions.

in this issue

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Pruning roses

Hybrid roses are among the most challenging garden plants to grow. The rewards, however, are beyond description. One of the most critical tasks to keeping these plants healthy is winter pruning.

Prune your roses when the buds begin to swell. Near the coast this usually occurs by mid-February, while in the piedmont and mountains this is usually early to mid-March.

Winter pruning is not as difficult as you may think. First, round up your supplies: sharp pruning shears, lopping shears, gardening gloves, and first aid kit. Then follow these tips for pruning success:

- Remove any dead, diseased, or otherwise weak and unhealthy wood.
- Prune to open the center of the plant. This allows for good air flow and can help reduce disease problems.
- Where canes cross or touch, remove either the weaker cane or the one that exhibits an undesirable growing position.
- Based on size and growing position, make your final choices for this year's canes. Retain canes that are at least pencil-sized in diameter. For more, smaller flowers, retain six to eight canes. For fewer, larger, specimen-type flowers, retain four to five canes. Prune these canes back to 12 to 15 inches. Cut about half an inch above an outward-facing bud.

Keep in mind that most species of old-fashioned roses only bloom once a year. They do not require the severe structural pruning of Hybrid Teas and Floribundas. Prune them mainly to maintain a desirable shape. Prune miniature roses for good plant shape. While deadheading minis can be tedious, it can ensure a plentiful supply of flowers almost all summer long.



All rose types require regular care to thrive. These tips will help you get your roses off to a strong start this season.

- When new leaves begin to emerge, begin irrigating your roses. Roses need around 1 inch of water per week. Use a soaker hose in your rose garden to conserve water and minimize leaf diseases.
- Begin your fertilization program in spring. Fertilize based on soil test results. Boxes for collecting soil samples and instructions for submission are available from your local Cooperative Extension office.
- If a soil test is not performed, use a complete fertilizer (one that contains nitrogen, phosphorus, and potassium), such as 5-10-5, 4-8-4, or 4-8-6. Apply fertilizer at the rate of 3 pounds per 100 square feet. This is about $\frac{1}{4}$ cup of dry fertilizer per plant. Spread the fertilizer evenly around the plant and scratch it into the soil surface.

Regular care and sound pruning practices such as those outlined above will be rewarded with shapely, healthy plants and an abundance of beautiful, fragrant flowers. Enjoy.

— Randy Fulk

Extension Showcase

Wayne Community Gardening Project

Community gardens provide many benefits, including community interaction, opportunities to learn about gardening, and fresh, nutritious food.

In 2006, the Wayne Community Gardening Project was formed to develop a community garden on the grounds of the Wayne County Public Library. Partners in the project include the Wayne County Public Library, the Center for Environmental Farming Systems, and Wayne County Cooperative Extension. Program goals included promoting awareness and appreciation for diverse cultures, encouraging participants to make healthy eating choices, and providing literacy and learning opportunities. Educational gardening programs for adults and children were incorporated to achieve these goals.

The community garden has been in place now for six years. Many programs offered by various partners have incorporated gardening, literacy, and nutrition. The county's first Junior Master Gardener program was established in 2010, and since then 30 children have become certified. Food from the garden has been shared with program participants, with a portion of the harvest going to the Community Soup Kitchen of Goldsboro. The Wayne Community Gardening Project will continue to grow through maintaining current programs, increasing community involvement, and promoting local gardening.

— Jessica Strickland

Smart Gardening — Five reasons to buy or grow local food

The local foods movement is an agricultural supertrend that is continuing to gain popularity. Are you riding the local foods wave? If not, here's why you should consider trying it:

Local foods reduce fossil fuel consumption. Lettuce traveling from California to North Carolina uses 36 times more fossil fuel in transport than it provides in food energy. The average U.S. meal travels 1,500 miles before reaching your plate, with transportation costs contributing 40% to 60% of produce prices. Wouldn't you rather support a farmer?

Local food dollars stay local. When you purchase local produce, your money stays in your community, cycling through local businesses multiple times. When you buy at large chains, your dollars often leave the state.

Local food tastes better. Grocery store varieties are grown for one primary trait: long shelf life. Food from your garden or local farm doesn't ship across country, so it can include varieties based on flavor, quality, or novelty.

Local foods are nutrient rich. There is a direct correlation: the longer the time between harvest and consumption, the fewer the nutrients. Local foods are better for you because they do not lose nutrients while stored for weeks or months.

You can make a difference. The magnitude of environmental concerns can make it frustrating for individuals who want to make a positive environmental impact. Can one family make a difference? YES! Purchasing local helps reduce your carbon footprint, enhance nutrition, and support your local economy, while helping you learn to appreciate the natural abundance of foods available in your area.

Support local producers now, so they will be well-positioned to provide healthy fruits and vegetables for years to come! To find farmers in your area, visit the NC Farm Fresh website at www.ncfarmfresh.com.

— Nicole Sanchez

Food Production — Growing asparagus

I have fond memories of my grandmother and her hills of asparagus. She was an extremely hard worker and always seemed to be tending her asparagus patch. Whether it was fertilizing with composted horse manure or pulling weeds, she was rewarded for her hard work with armloads of fresh asparagus spears.

Asparagus is easy to grow throughout North Carolina, as long as a sunny, well-drained location is available. Start building up organic matter content prior to planting, and adjust the pH level to 6.0–6.7.

Asparagus plants come in male and female varieties. The traditional female types — Mary and Martha Washington — have given way to new male hybrids, such as Jersey Giant, Jersey Prince, and Jersey Knight, which are more productive.

In eastern North Carolina, plant dormant asparagus crowns in February; in the piedmont

and mountains, plant asparagus in late winter. Asparagus crowns should be planted every foot in rows 4 to 5 feet apart. Plant the crowns in a trench 8 inches deep, with the buds pointing up. Cover the crowns with 2 inches of soil initially. As the plants grow, add more soil until gradually the trench is filled.

Your first spears will emerge about a week after you plant, but don't harvest yet! Wait until year two to begin harvest, and then pick spears for only two weeks.

Your patience will help your crowns produce even more spears in later years. Starting in season three, you can increase your harvest up to six or eight weeks. Cut or snap the spears at ground level.

To care for your asparagus patch, provide nutrients based on soil test recommendations. Allow plants to grow until they have turned brown after frost. If they are cut down before frost, the next year's crop of spears is reduced.

— Cyndi Lauderdale



Pest Alert — *Meet under the mistletoe*

Whether you consider it a holiday symbol or a landscape pest, mistletoe is a common sight this time of year. This clumping, evergreen, parasitic plant depends on a host for nutrients and water. It commonly grows on several different species of trees, including red maple, water oak, and pecan.

Mistletoe produces white berries that ripen in the winter following a late fall bloom of yellow flowers. Berries are eaten by birds and spread to other trees through droppings. Berries are also poisonous and should be kept out of the reach of children and pets.

Treating infested trees is difficult. Mistletoe will weaken branches over time; in extreme cases, mistletoe can kill an entire tree. Removing infected branches provides some control but

is often impractical in large trees and does not guarantee complete control.

Over the years, mistletoe has inspired many uses and myths.

Historically the plant was thought to cure disease, improve fertility, and bring good luck. According to legend, if two enemies met beneath a tree on which mistletoe was growing, they would lay down their weapons

and observe a truce until the next day. The use of mistletoe as a holiday aphrodisiac is thought to have originated with the English. Mistletoe was hung in doorways, and after sharing a kiss, couples would pluck a berry from the arrangement until all the berries were gone.

— Katy Shook



Environmental Stewardship — *The 10% campaign*

In today's fast-paced world, we all have high expectations for food. We want fresh, nutritious, tasty food 24/7/365. Locally grown foods can supply this demand.

Why buy local food? What makes it so popular and so important for our farms, our families, and our communities? As food consumers, North Carolinians spend nearly \$35 billion annually. North Carolina farmers produce \$10 billion of farm products. That's a lot of money!

A lot of the \$35 billion we spend on food goes to farms in other states or other countries. Supporting farmers outside North Carolina isn't bad; it just moves money from our local economies to other economies.

In North Carolina the Center for Environmental Farming Systems in Goldsboro developed the 10% Campaign to remind us of the importance of our local farmers and to help us all pledge to keep some of our food dollars at home. Through its Farm to Fork Initiative, the NC 10% Campaign is connecting thousands of

North Carolinians with hundreds of local, regional, and statewide organizations through local food. The goals of the campaign are simple:

- Get consumers to keep 10% of the money they spend on food at home.
- Get buyers to work with area farmers and pledge to buy at least 10% of the food products they need locally.
- Keep the money we spend on food at home to support farmers and locally owned food producers and food businesses.

Pledging to do this is easy. Simply go to the NC 10% Campaign website at www.ncsu.edu/project/nc10percent and join the 10% Campaign. Once you join you will be able to track your progress along with the progress of the campaign statewide. If we all do 10%, we could keep \$3.5 billion that we already spend in the state by channeling that money to local farms, restaurants, and businesses.

— Mark Seitz

Tips & Tasks

Tips and Tricks for Planting Bulbs

Purchasing and planting bulbs is an easy and inexpensive way to add color to your landscape. These tips will help you get the most out of your bulbs:

- Bulbs purchased in fall include daffodils, tulips, and crocus. These bulbs should be planted in November or December to bloom in spring.
- Bulbs purchased in early spring include lilies, gladiolus, and dahlias. These should be planted in April to bloom in summer.
- Make sure you purchase bulbs from a reputable garden center, nursery, or catalog. Purchasing quality bulbs will ensure that you get quality blooms.
- Purchase early to get the best selection, and always check the bulbs for firmness upon receipt. Typically, the size and number of flowers are directly related to the size of the bulbs.
- Keep your bulbs cool (50°F–65°F) and dry before planting.
- Select a site with lots of sun and well-drained soil.
- Plant small bulbs 5 inches deep and large bulbs 8 inches deep for best results and to help protect against mechanical damage.
- Fertilize your bulbs at planting with 1 rounded teaspoon per square foot of 10-10-10 fertilizer (or an equivalent fertilizer) and again at sprouting.
- Water well after planting. Apply mulch to keep the weeds down and hold in moisture.

— Mary Hollingsworth

Ilex x 'Conaf' RP 9487

Charlotte Glen

Helping You Grow

Become an Extension Master Gardener

Extension's Master Gardener Program is designed to enhance public education in horticulture. Under the guidance of Extension agents, participants complete a 40-hour training course in horticulture. In exchange for their training, Master Gardeners work through their Extension office to complete a 40-hour volunteer internship. Volunteer opportunities include answering gardening questions, developing exhibits, working with community and demonstration gardens, and assisting with school gardening projects. To find out more about the

Extension Master Gardener program in your area, contact your local Extension center or visit www.ncstategardening.org.

— Katy Shook

When instructions are properly followed, you can expect mushrooms in six to 12 months, and the logs can last up to 10 years.

Showstopper — 'Oakleaf' holly

The 'Oakleaf' holly is one of the most exciting recent introductions into the world of hollies. One of five different varieties introduced as the "red hollies" in the mid-1990s, 'Oakleaf' holly gets its name from the shape of the plant's leaf, which resembles that of our native scarlet oak. This evergreen beauty was a chance seedling from the well-known holly variety 'Mary Nell'.

The leaves of 'Oakleaf' maintain an attractive medium green color with a lighter-colored leaf edge throughout the year. Plants exhibit a pyramidal growth habit, reaching heights of 14 feet or more, and spread up to 8 feet across. Hardy in zones 6 to 9, the 'Oakleaf' holly is an ideal choice for evergreen hedges or planting en masse for screening purposes. This showstopper is attractive enough to place in your garden as a specimen plant. Grow in full sun or in very light shade and well-drained soil.

— John Vining

Edibles — Mushrooms

Mushroom-growing kits are a popular way for beginners to get started growing mushrooms. Kits are readily available and tend to have moderate to good success rates. In North Carolina, shiitake seems to be the most popular mushroom. However, growers are also having success with oyster, maitake, and lion's mane mushrooms, to name a few.

Mushroom kits start at around \$13, though more elaborate kits can cost in excess of \$100. A word of caution for beginners: It is important to start with smaller kits. These come with the essentials — spawn plugs, plug wax, and basic instructions. As the grower, you have to supply the wood (oak is preferred) and manual labor to inoculate the logs.

— Danelle Cutting

Sustainability — LED lights: Growing into the future

Since its debut in the 1970s, the light-emitting diode (LED) has morphed from a futuristic device to a fixture of everyday life. Described as solid-state lighting, today's LED more closely resembles a computer chip than a light bulb.

The impact of LED lighting on horticulture began in 1991, when researchers at the University of Wisconsin suggested that LEDs could be used to grow plants. These findings inspired NASA to develop LED-

lit growth chambers as prototypes for crop production on Mars.

When used to provide artificial lighting for plants grown indoors, LED lights have many benefits. In addition to more closely matching the wavelengths most utilized by plants, LED lights also radiate very little heat. This allows them to be placed very close to plant leaves.

The environmental benefits of LED lights are impressive. According to Energy

Star, LEDs are 20 times more efficient than incandescent bulbs, five times more efficient than fluorescents, and have brightness equal to or greater than other lighting technologies. In addition, they provide constant output for more than 25,000 hours, supply excellent color quality, light immediately upon start-up, do not flicker, and do not draw power when off. Finally, the LED device does not contain mercury or other hazardous materials that require special disposal.

— Bob Filbrun

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