



Extension Gardener

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Empowering
gardeners.
Providing
garden
solutions.

in this issue

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Why fall is a great time to plant

Cool weather and the changing colors of leaves are signs that it's time to plant trees and shrubs. Although many people plant in the spring, fall is a better time for planting most woody plants. Trees and shrubs that are planted in the fall have more time to get established before the stress of a hot, dry summer, giving them a better chance of survival.

Before you plant, be sure to select the right plant for the site. Choosing trees and shrubs based solely on their ornamental characteristics, without consideration of the site, is probably the most common mistake people make when planting. Putting time into proper plant selection now will ensure a low-maintenance planting and prevent disappointment and headaches down the road.

Choose a plant based on the conditions of the site where it will be planted. Is it sunny or shady? Dry or wet? A tree that is adapted to a particular site will have a better chance of thriving in that area.

A common pitfall is planting trees that grow too large for their location. When choosing a tree, consider its mature height and width, which are found on the sales tag. In 10 or 20 years, will it be too large for the spot where you want to plant it? Trees that grow too big for their location will require constant pruning, which will damage tree health. For help choosing trees and shrubs in North Carolina, visit www.ncstate-plants.net.

Have soil tests performed to assess your soil's pH and nutrients prior to planting. Soil samples are easy to gather, and the North Carolina Department of Agriculture and Consumer services performs the test free of charge. Sampling supplies are available from your local Extension office. When you get your results back, amend the soil with lime and fertilizer in accordance with what the results tell you about your soil.



Planting a landscape is an investment, so make sure you do it right the first time. Here are some things to consider when planting trees and shrubs in your landscape:

- If installing a container-grown plant, remove the pot and check for circling roots.
- Don't plant deeper than the soil surface.
- Make sure the trunk flare (the place on the trunk where the roots spread out from the base of the tree) is visible.
- Remove all twine, wire, strings, and straps to prevent girdling.
- Do not plant tall trees under utility lines.
- Remove any broken, dead, or crossing branches.
- Mulch the base of the plant with a layer of wood mulch or pine needles 2 to 3 inches thick, keeping the material a couple of inches away from the trunk.
- Provide 1 inch of water per week during the growing season when rainfall is lacking.

For more information on tree planting, visit www.cals.ncsu.edu/extgardener/tree.pdf.

— Amanda Taylor

Extension Showcase

Extension funds school gardens

According to the Centers for Disease Control and Prevention (CDC), U.S. childhood obesity has more than tripled in the past 30 years. The CDC states, “Obese youth are more likely to have risk factors for cardiovascular disease, such as high cholesterol or high blood pressure. . . . Schools play a particularly critical role by establishing a safe and supportive environment with policies and practices that support healthy behaviors. Schools also provide opportunities for students to learn about and practice healthy eating and physical activity behaviors.”

School gardens can serve as a valuable resource to introduce children to the natural environment and increase their interest in eating fresh vegetables. However, funding for such projects is a major impediment in many school systems.

In response to this concern, Guilford County Extension Master Gardeners have implemented a School Garden Grant program. The program uses money generated by targeted fundraising activities to support gardening programs in schools by helping to fund the creation or expansion of school garden projects. In the 2011–2012 school year, \$1,500 was distributed to six schools. The gardens that have resulted from these grants have been used by 30 third-grade school teachers to involve more than 750 students in hands-on learning activities.

— Karen Neill

Smart Gardening — Cover crops for home gardens

Most of the time when we grow something, we want it to either produce food or look good (or both). Cover crops are grown for different reasons. Often, the purpose of a cover crop is to make the soil better for other plants.

There are cover crops that are suitable for either warm or cool seasons. A person who is primarily interested in growing a summer vegetable garden might find a cool-season cover crop most useful. A popular combination for the winter months is cereal rye and crimson clover, which can be planted from August 25 through October 25 in the piedmont. When using this combination, plant cereal rye and crimson clover at rates of 0.75 pounds and 0.5 pounds per 1,000 square feet, respectively. Cereal rye is a type of grain and a member of the grass family. It helps build organic matter and hold nutrients. Clover is a legume. If appropriately inoculated, bacteria associated with legumes pull nitrogen into the soil, thus providing fertilizer for the next crop.

Before sowing your winter cover crop, till in any lime needed for the next season. Also, if you plan to add compost or aged manure to your garden, till it in before planting. The cover crop will help prevent nutrients from being washed

out of the soil layer where they’re needed for your garden. If manure is used or if the compost has a high level of nutrients, you might plant a grain by itself (e.g., cereal rye at a rate of 2.5 pounds per 1,000 square feet). Before adding manure to a vegetable garden, make sure you’re not likely to run into any residual herbicide issues, as described in Cooperative Extension publication AG-727W, *Herbicide Carryover in Hay, Manure, Compost, and Grass Clippings*, available online and from your county Extension office.

About four weeks before you plan to plant your spring garden, mow or string-trim the cover crop, or spray it with a glyphosate-containing herbicide that is labeled for use in home vegetable gardens. Then till in what is left of the cover crop or leave it on the surface as mulch. If you use glyphosate to kill the crop, wait until it is obvious that the crop has started to die before tilling, to ensure that the herbicide has had time to work.

For more information about cover crops, see publication AG-659W-03, *Cover Crops for Organic Farms*, available online at the Center for Environmental Farming Systems website (www.cefs.ncsu.edu).

— Mary Helen Ferguson

Food Production — Raised-bed gardening

Raised-bed gardening has been around for many years. It arose out of the desire to find a way to garden in heavy, poorly drained soils. Gardeners continue the practice for additional reasons, among them to bypass potential problems with native soil and allow for greater root development.

Raised beds can grow an annual crop without any edging, but most gardeners prefer to enclose them with various types of wood or synthetic materials. Sizes and shapes vary. If using wood, cedar, locust, or cypress are the best choices. Avoid treated railroad ties because they will leach creosote, a harmful chemical, into the soil.

Raised beds only need to be 8 inches to 10 inches in height. However, taller beds may be constructed to allow for wheelchair access or to allow those with mobility challenges to enjoy the benefits of gardening. Keeping the

width less than 4 feet allows easy access from all sides without excessive reaching and straining.

The bed should be filled with the gardener’s choice of growing media. A mixture of composted cow manure, peat, and vermiculite works well, although some gardeners have their own secret recipes. Don’t be afraid to experiment with different growing mixes to find which one you like best.

Raised beds offer superior soil drainage and space utilization. Installing a vertical trellis at one end for vine crops offers even more growing capacity for small spaces. Fertilization in a raised bed is the same as for conventional gardens and should be based on soil test results. Without a soil test, gardeners should apply a complete fertilizer such as 10-10-10 applied at the rate of 1 to 2 pounds per 100 square feet.

— Randy Fulk



Pest Alert — *Managing voles in the landscape*

Voles, also known as field mice, present a management challenge to gardeners across the state. They provide a source of food for predators higher up on the food chain, but as vegetarians their primary food is the roots and bark of herbaceous and woody plants. Voles can do considerable damage in home landscapes and commercial orchards. Healthy plants can literally die overnight after voles have feasted on the roots. Holes the size of silver dollars around the base of plants are a strong indicator that voles are present in the landscape.

Management of voles involves a combination of monitoring, trapping, and the use of a rodenticide. Monitoring of vole populations can be done using the “apple sign” test, in which a mousetrap is baited with an apple slice and placed in a vole tunnel. The tunnel



is covered and periodically checked to see if a vole is present.

Using traps to manage vole populations can be successful, but the most effective method is applying an approved rodenticide, such

as Chlorophacinone, in tunnels that are being actively used by voles. Rodenticides are pesticides and should be used with caution. While they are registered for use on rodents, they are harmful to all mammals, including dogs, cats, and people. Care should be taken to follow label instructions

to avoid harming a nontarget animal. For more information see Extension publication AG-472-3, *Voles in Horticultural Plantings*, available online (<http://www.ces.ncsu.edu/nreos/wild/wildlife/wdc/voles2.html>) or from your local Extension office.

— Michelle Wallace

Environmental Stewardship — *Building healthy soils*

Many people think great soil is like a beautiful view—you either have it or you don't. Here in the South, our soils are not naturally rich because nutrients are continuously leached away by our warm, moist weather. But there are several steps we can take to make our soils highly productive.

Adding organic matter to clay soil improves moisture retention, soil structure, and microbial populations. What kind of organic matter you add depends on what you intend to grow. Some animal and mushroom composts have very high nutrient levels and are most suitable for heavy feeders, such as vegetable crops. Leaf compost has moderate nutrient levels and can be worked into the soil for vegetables or ornamental plants. Shredded hardwood and pine mulch work great for perennial beds, which can be top-dressed each year. All of these materials provide food for soil organisms, which in turn help feed the plants.

Testing soil for pH and nutrient levels is the next important step. For most plants, a pH of 6.0 to 6.5 is ideal. When the pH is above 6.5, certain nutrients may become unavailable to the plants—so yes, you can overlime! At a pH below 5.0, you may see root development limited by acid conditions. A free soil test by the North Carolina Department of Agriculture and Consumer Services soil testing lab will determine the pH and nutrient concentrations of your soil. Contact your local Extension office for supplies and advice on soil testing.

Crop rotation is critical for maintaining soil health. Many pests reside in the soil for part of their life cycle. By moving their host plants to new beds each year, you reduce the pests' ability to reproduce.

We may live in the hot, sunny South with its signature clay soils, but by focusing on building healthy soils you can grow a showstopper garden!

— Jeana Myers

Tips & Tasks

Lawns

- September is the month to start fertilizing cool-season lawns. Use the holidays as a rule of thumb for fertilizing lawns: Fertilize around Labor Day, Halloween, and Thanksgiving.
- Reseed thin areas of cool-season turf with 3 to 4 pounds of turf-type fescue per 1,000 square feet. Completely bare areas should be seeded with 5 to 7 pounds of turf-type fescue per 1,000 square feet.

Ornamentals

- For fall color, plant pansies, flowering kale, and cabbage when temperatures begin to cool.
- Perennials, such as lirioppe, day-lilies, and hosta, can be divided. Plants should be healthy and at least three years old.
- Leaves are falling. Shred them and start your compost pile.
- Fall is for planting. Trees and shrubs do best when planted during dormancy. Have a realistic maintenance plan before planting.

Edibles

- Continue to irrigate the fall garden during dry periods. Side-dress leafy vegetables with a complete fertilizer to promote growth during the early fall.
- Dig sweet potatoes before hard frost. Cure at a temperature of 80 degrees for a few days and store in a cool, dry location.
- Till and plant cover crops to enrich the soil and improve organic matter. Wheat, rye, and barley make excellent cover crops for vegetable gardens.

— Darrell Blackwelder

Showstopper — 'Miss Ruby' butterfly bush

Thanks to the plant breeding efforts of Dr. Dennis Werner, NC State University has released a series of new and improved butterfly bushes, including this year's "showstopper," Buddleja 'Miss Ruby.' 'Miss Ruby' was selected for its compact habit and remarkably vivid, rich pink flowers, which some observers say are more vibrant than any other Buddleja variety available. In 2008 the United Kingdom's Royal Horticultural Society plant popularity poll ranked 'Miss Ruby' as its number one butterfly bush cultivar out of 97 varieties.

Hardy in zones 5 to 10, 'Miss Ruby' has an upright, globe-shaped habit with many lateral branches. It can be grown as a specimen plant in the landscape or in mixed borders. Although compact in habit, this new cultivar will reach a height of 5 feet, so give it plenty of space to grow. Like all butterfly bushes, 'Miss Ruby' requires full sun and good drainage to thrive, and it attracts butterflies in abundance.

— John Vining

Helping You Grow

Pesticide Disposal Days

Do you have old containers of pesticide that you are unsure how to dispose of? The North Carolina Department of Agriculture & Consumer Services (NCDA&CS) Pesticide Disposal Assistance Program offers free assistance to help homeowners and growers dispose of outdated or unwanted pesticides in an environmentally safe manner.

Since this program was implemented in 1980, NCDA&CS has collected more than 2.4 million pounds of pesticides throughout the state. Contact your local Cooperative Extension office to find out collection dates, times, and locations near you.

— Della King

Edibles — Persimmons

When you think of persimmons, puckering up may be the first thing that comes to mind—not to kiss, but because unripe persimmons are so astringent on the palate.

To enjoy the sweet flavor of native persimmons (*Diospyros virginiana*), wait to harvest fruits until they are fully ripe. You can also grow a nonastringent variety of Oriental persimmon (*Diospyros kaki*), such as 'Fuyu,' 'Hanagoshu,' or 'Jiro.' The flavor of these easy-to-grow fruits is exceptional, the fruits are larger, and best of all, no puckering!

Native persimmons can be grown throughout the state, but Oriental varieties are less cold hardy and are better suited to the coastal plain and piedmont. Plant persimmons in full sun and well-drained soil with a pH of 6.0 to 6.5, with trees spaced 20 feet apart.

— Jan R. McGuinn

Sustainability — GreenScaping

Do you want to have a greener, healthier yard while helping the environment and saving both money and time? It almost sounds too good to be true, but GreenScaping can achieve all these things.

Here's how to create a GreenScape:

1. Build and maintain healthy soils with composting and mulching. Contact your local Extension office to learn more about free soil testing, the first step to knowing what your soil needs. If your soil needs nutrients, feed it with compost you made in your backyard with your yard

waste clippings. Mulching is another strategy that greatly improves the production of flowers and vegetables.

2. Plant right for your site. In addition to selecting plants that are appropriate for your growing climate and that are resistant to pests in your area, choose plants that attract beneficial wildlife to the garden.

3. Practice smart watering. Water conservation is a must for all gardeners. Smart watering starts with rain gardens, rain barrels, and making every drop count.

4. Adopt a holistic approach to pest

management, starting with prevention. Recognizing beneficial insects and accepting some imperfections can go a long way toward reducing pesticide use.

5. Practice natural lawn care. Leave grass clippings on the lawn, and mow regularly at the correct height to have a healthier lawn. Natural fertilizers, watering, and overseeding are a few more practices to consider.

Learn more about GreenScaping at www.epa.gov/GreenScapes.

— Cyndi Lauderdale

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