



Extension Gardener

NC STATE UNIVERSITY

NORTH CAROLINA COOPERATIVE EXTENSION

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Empowering gardeners. Providing garden solutions.

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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

Rutherford County Extension Master Gardeners

For the past 20 years, the Extension Master Gardener Volunteers of Rutherford County have served as horticultural ambassadors for Extension's consumer horticulture outreach to county residents.

Rutherford Extension Master Gardeners have been instrumental in developing a Spring Garden School serving county and regional residents and in creating a garden for children of the members of the Grandparents Raising Grandchildren Support Group. These volunteers have also provided leadership in implementing a 4-H mini-garden program and have utilized horticulture as a healing tool by providing a safe and secure garden for families of the PATH Women's Shelter.

Since 1992, more than 230 Master Gardener Volunteers have lived the Master Gardener mission of "helping gardeners put knowledge to work" by answering gardening questions, creating a "Tip of the Week" radio program, collaborating with local organizations to provide a wide variety of horticulture programs, and providing an on-site Extension demonstration garden.

Rutherford County's Extension Master Gardener Volunteer Program represents many hands and many efforts coming together to meet the community's needs. Join us in celebrating 20 years of outstanding service!

— Jan McGuinn

Smart Gardening — Efficient gardening

All great gardeners are also efficient gardeners. Gardening is hard work, and those who excel at it know that planning ahead is a big reason why their gardens are successful. Getting it right the first time makes for fewer aching backs and creaking knees. Efficient gardening also saves time and money. Gardeners love what they do, but it's no fun to constantly retrace your steps. So as this season starts to wind down, let's look at some ways to garden a little smarter next year.

How many plants do you need for a particular area? That is a question facing every gardener. Choosing plants and designing beds are fun tasks, but how often have you gotten home with your purchases and found that you didn't buy enough or that you had too many of something? This happens to all of us, but there are ways to prevent it from happening again. Start by measuring your planting area. Then draw the planting area on a piece of paper. (It doesn't have to be fancy.) Then, based on the spacing of the plants you're installing, figure out how many are



required. If you know your quantities ahead of time, shopping is much easier, and when you get home you'll have exactly what you need.

Do your homework on the type of environment your plants need. If your flower bed is sunny, it is a waste of time and money to plant a shade lover like impatiens. If water is an issue, find out what varieties of drought-tolerant plants will grow in your location. The more plans you make ahead of time and the more

knowledge you have about the plants you're working with, the better the chances are that your gardening project will be a success.

The same is true of vegetable gardens and landscapes. Learn about the varieties you plan to grow in the garden. If a variety has issues with diseases and insects, choose another. Applying pesticides can be costly and is certainly time consuming. Not all insects and diseases can be avoided, but many can, when you know ahead of time what to look for.

— Donna Teasley

Food Production — The value of local agriculture

We live in a time of great uncertainty. Job loss, a poor economy, increasing environmental concerns, food-safety issues, high fuel prices, and other worrisome topics crop up in almost every conversation today. How does agriculture fit into this picture? Just ask Thomas Jefferson, who said: "Agriculture is our wisest pursuit, because it will in the end contribute most to real wealth, good morals, and happiness."

The agriculture industry in North Carolina contributes \$70 billion to the state's economy, accounts for 18% of North Carolina's income, and employs 17% of the state's workforce. North Carolina ranks seventh nationally in farm profits, and the state's farmers grow more than 80 different commodities.

One of the fastest-growing agriculture enterprises is the "locally grown" market sector. A growing demand for food-source transparency

and a desire for fresh, high-quality, great-tasting food have fueled the rise of the local-food movement throughout the United States. Shopping at farmers markets and buying from local farms boost the success of small farmers, pump money into the local economy, build jobs, and support healthy eating.

We can help each other by supporting local farms. William Pitt summarized his belief in agriculture and its ability to support this great country when he said: "Trade increases the wealth and glory of a country; but its real strength and stamina are to be looked for among the cultivators of the land." Supporting one of the largest industries in the state can be as simple as shopping at the local farmers market in your community. Make a choice to make a difference: buy and eat local.

— Adam Keener

Pest Alert — Mosquitoes!

Summer storms cause plenty of problems, from lightning damage to flooding and everything between. A less obvious effect of storms is that pests are strewn about just as much as trees and other debris.

One of the more common pests associated with storms are mosquitoes. Mosquitoes reproduce by laying eggs in shallow water. Any area of water that remains stagnant is a likely target for mosquito breeding. As a result, mosquito populations are likely to explode anywhere flooding takes place.

To reduce mosquito populations on your property, Mike Waldvogel, Extension Specialist with NC State University's entomology department, recommends that you:

- Overturn or empty objects that have collected stormwater.
- Clear gutters and downspouts of debris so that rainwater drains properly.



Susan Ellis, Bugwood.org

- Remove water that collects on sagging tarpaulins or other covers on your house or property.

• Clear silt and storm debris from drainage ditches and storm drains so that water will flow and not stagnate.

- Fill in holes left by uprooted trees, vehicles, or heavy equipment.

• Larger water-filled objects, such as swimming pools that become stagnant from lack of maintenance, can be treated with mosquito dunks

containing the bacterium *Bacillus thuringiensis israelensis* (Bti), which does not pose a hazard to animals.

Chemical sprays are available for larger-scale situations, but this method is best left to professionals. Do your part in your community by following these recommendations to reduce potential breeding sites.

— Julie Flowers

Environmental Stewardship — Preventing pest resistance

In Cooperative Extension, we often get calls from gardeners who are having trouble controlling pests. They say they have controlled these pests in the past, but now the pesticide they have always used no longer seems to have the same effect. When this occurs, the disease or insect has probably developed resistance to the pesticide, making it a waste of time and money to apply the pesticide.

Pest resistance occurs when the same pesticide is applied over and over. For example, gardeners that have used Sevin to control Colorado potato beetles for years may suddenly find that this insecticide is not effective anymore. Whiteflies are also notorious for developing resistance to a wide variety of insecticides.

Resistance is not limited to insects. Diseases such as fire blight have developed resistance to certain bactericides. Even weeds have developed resistance over the years to certain herbicides, such as glyphosate.

One way to delay or avoid pest resistance is to use pesticides sparingly. Gardeners have a number of methods at their disposal to minimize the need for pesticides. For example, if you only have a few beetles on your plants, picking them off by hand is preferable to spraying them.

If a pesticide is needed, rotating different pesticide products will help prevent resistance from developing. *Note:* Pesticides with different trade names do not necessarily have different active ingredients. Look at the active ingredient statement on the front of the container to make sure it is different from what you are currently using.

Determining the proper pesticide rotation may require a little research on the gardener's part. Try to find pesticides that have different modes of action. This information is available online, or you can call your local Extension office for advice on selecting the proper pesticide.

— Bill Hanlin

Tips & Tasks

Lawns

- Treat the lawn for grubs before the end of October.
- Continue to rake leaves from the lawn throughout the fall.
- Fertilize and lime tall fescue lawns according to soil-test results.
- Spray for wild onions and garlic using a 2,4-D product in October and November.
- Overseed or plant new turf grass in early fall.

Ornamentals

- Plant spring flowering bulbs such as tulips and narcissus.
- Plant pansies in September so they can become established before cold weather arrives.
- Plant or move ornamental landscape plants during mild fall months.
- Dig and store summer bulbs such as gladiolas, dahlia, and caladium.

Edibles

- Sow leafy green vegetables, such as lettuce and mustard greens, for late fall harvest.
- Practice good sanitation by cleaning debris from the vegetable garden. This will help lessen disease and insect problems.
- Till organic matter such as tree leaves into your vegetable garden soil.
- Take soil samples from ornamental beds and vegetable gardens for testing.

— Donna Teasley

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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