



Extension Gardener

NC STATE UNIVERSITY

NORTH CAROLINA COOPERATIVE EXTENSION

Spring 2009

Empowering
gardeners.
Providing
garden
solutions.

in this issue

COASTAL NEWS

Soil Testing
Weed Control
Airlie Gardens
Going Native

STATE NEWS

Butterfly Gardens
'Ruby' *Lorapetalum*
Honeybees
Blueberries
Fire Ants

Butterfly Gardens Enliven the Landscape

Growing a garden is a satisfying project. When plants bloom and thrive, they bring constant pleasure to the gardener who has spent many hours on hands and knees tending them. Added pleasures in home gardens are the creatures that make their homes among the flowers. One of the most enchanting of these creatures is the butterfly. A welcome visitor to any garden, the butterfly's whimsical frolic among the plants growing there brings a smile to anyone who may be watching.

There are many different butterflies throughout the world, including the 160 species that occur in North Carolina. When they enter a garden, they are looking for two things: nectar and host plants. Nectar is a major food source for butterflies, and a host plant is a specific plant upon which a butterfly will lay her eggs. This host plant must also serve as food for hatching caterpillars. To encourage butterflies in your garden, these two requirements must be met.

What types of flowers appeal to butterflies? Brightly colored blooms will attract them, and fragrance is also a factor. Most butterflies must land on a flower to drink, so they like those with large petals or tight clusters of flowers. They also seem to prefer mass plantings of single colors rather than a hodgepodge of mixed colors. As

butterflies are present all season long, plants that flower for a long time are preferred.

To ensure the presence of butterflies, plant some host plants in or near the garden. Each species of butterfly is very specific about the types of plants its caterpillars will consume. Become familiar with the types of butterflies that frequent your area and the host plants they require. Decide where you will put your butterfly habitat and how much space to devote to it before selecting plants. Choose a sunny location. Most butterflies are active only in the sun, and many plants that host caterpillars or produce nectar for adult butterflies grow well in sunny habitats. Include some tall plants and shrubs that will help to shelter butterflies from wind and rain.

Butterflies like to have a place to get warm in the mornings, so flat, dark-colored rocks for them to sun on will encourage them to visit. Also, an area on the ground that can be kept moist is helpful so that visiting butterflies can drink water and absorb minerals from wet soil. Enjoy your butterfly garden and the visitors that it will attract. For a list of plants that attract butterflies and more information about butterfly gardens, see *Butterflies in Your Backyard*: www.ces.ncsu.edu/forestry/pdf/ag/ag636_02.pdf

— Donna Teasley



Sleepy orange skipper
JC Raulston Arboretum



Eastern tiger swallowtail
JC Raulston Arboretum



Spicebush swallowtail
JC Raulston Arboretum



Master Gardener plant sales occur March through May.

Upcoming Events

Master Gardener Plant Sales

March 26 – March 31, 9 AM – 5 PM daily, Wilmington, 910.798.7660

April 16 – 18, Burgaw, 910.259.1235

April 16 – 18, 9 AM – 4 PM, Bolivia, 910.253.2610

April 18, 7 AM – 12 PM, Kinston, 252.527.2191

April 25, 8 AM – 2 PM, Nashville, 252.459.9810

April 25, 8:30 AM – 11:30 AM, Beaufort, 252.222.6352

May 2, 8:30 AM – 11:30 AM, Beaufort, 252.222.6352

May 9, 8:30 AM – 11:30 AM, Beaufort, 252.222.6352

May 16, 8:30 AM – 11:30 AM, Beaufort, 252.222.6352

Other Events

April 4, 9 AM – 12 PM, Wilson – Alive with Color Spring Symposium, 252.237.0113

April 18, 9 AM – 6 PM, Ocean – Coastal Federation Native Plant Festival, 252.393.8185

May 1–2, 10 AM – 4 PM, Wilson – 2009 Wilson Garden Tour, \$25, 252.237.0113

May 16, 10 AM – 2:30 PM, Kill Devil Hills – Coastal Gardening Festival, 252.473.4290

May 17, 2 PM – 5 PM, Greenville – Pitt County Arboretum Open House, 252.902.1700

Sustainable Gardening — Soil testing

Whether you are planting a vegetable or flower garden, or maintaining a lawn and landscape, your first step should be soil testing. Applying too much or too little fertilizer and lime without testing your soil can hinder plant growth and development. Correct nutrient applications lead to healthier, more productive plants.

Soil testing plays an important role in plant growth and quality, and it helps protect our environment. Gardeners who rely on soil tests are less likely to apply more fertilizer than plants can use, which wastes money and often results in water pollution. This is especially true during heavy rainfall, when excess fertilizers are carried in runoff and leach into groundwater. Fertilizing properly can reduce pruning needs because over-fertilization can lead to excessive growth.

Obtaining quality soil samples is a vital part of receiving accurate results. Inexpensive home soil-testing kits will not provide the detailed analysis reported by a professional laboratory. Professional soil testing is provided

free to all N.C. residents by the N.C. Department of Agriculture. Boxes and forms for soil testing are available from any county Extension center. Prepared samples can be mailed to the soil-testing lab in Raleigh. Soil-test results and recommendations will be mailed back to you. You can also view results online: <http://www.agr.state.nc.us/agronomi/sthome.htm>

Soil samples can be collected anytime. Plan to test several weeks before planting so you will have your results back in plenty of time. Use a stainless steel or chrome-plated spade or shovel. Dig a small hole to the approximate depth you will be collecting. Scrape soil from the side of the hole, obtaining soil in one scoop from the top to the bottom of the hole. For lawns, take samples no deeper than 2 – 6 inches. For gardens, collect to a depth of 6 – 8 inches. For trees and shrubs, collect samples 6 – 10 inches deep. To find out more about soil testing and test results, contact your county Extension center.

—Della King

Food Production — Weed control in vegetable gardens

A major chore in the vegetable garden is keeping weeds under control. Weeds compete with vegetables for sunlight, water and nutrients, and can also harbor insects and diseases. Get weeds under control with these methods.

Mechanical. Use a hoe to cut weeds off at soil level. This detaches the leaves from the roots, making it difficult for the weed to survive. Some perennial weeds will come back several times. Eventually, however, the energy stored in the roots will be depleted, and those weeds will die. Hand-pulling also falls in this category and is very effective. You will probably have to pull some weeds, no matter what other methods you use.

Mulches. Organic and inorganic mulches shade the soil surface to discourage weed growth. Products such as wheat straw, newspapers and shredded leaves are **organic mulches**: natural products that can be mixed into the soil at the end of the growing season to improve it. Spread these mulches in a 2- to 3-inch

layer across the garden to help suppress weeds and conserve soil moisture.

Products such as landscape fabric and plastics are **inorganic mulches** because they are manmade. They are typically removed at the end of the growing season. Landscape fabric is porous, allowing the exchange of air and water between the soil and the atmosphere. Plastics are nonporous, so a water line will need to be placed under the plastic to provide plants the moisture they need. Black plastics warm the soil in the spring, allowing for earlier planting. Reflective plastics have been used to confuse insects so they can't find plants to feed on.

Chemicals. Herbicides also may be used to control weeds. Keep in mind, however, that most of them will also damage vegetable crops. Use only herbicides labeled for use in vegetables, and follow label directions carefully.

For more information contact your county Extension center.

—Shawn Banks

Garden Spot — Wilmington's Airlie Gardens

Historic Airlie Gardens in Wilmington offers visitors the opportunity to smell the roses, admire the azaleas, and stand in the shade of the 450-year-old Airlie Oak. Trails within this 67-acre garden paradise lead visitors around the garden's lakes, through natural areas and cultivated gardens, and past historic garden structures and tidal creek views. This mixture creates a unique environment for guests to experience.

Sarah Jones, wife of industrialist Pembroke Jones, began planting the 155-acre estate in 1901. In 1906, she commissioned a German landscape architect, Rudolf Topel, to turn the property into a garden.

The Corbett family purchased the property in 1948 and used the gardens as their residence. The Corbetts opened the garden to the public seasonally, especially in the spring. In 1999, the fam-



JC Raulston Arboretum



JC Raulston Arboretum

The Pergola garden at Airlie (top) includes a lakeside fountain (left).

ily sold the property to New Hanover County. Now the 67 acres that remain are preserved for public use.

Operated by New Hanover County, Airlie is open to the public throughout the year by admission. To find out more about the spectacular gardens and their history, visit www.airliegarden.org or call 910.798.7700.

—David Barkley

Environmental Stewardship — Going native

Eastern North Carolina is home to many different kinds of plants, birds, fish, mammals, insects and other creatures that make this area a wonderful place to live. Unfortunately, the rapid development our area is experiencing threatens many of the species that attract people to this region.

When forests and natural areas are cleared to make way for our homes and businesses, wildlife loses out because their homes are destroyed. Altering natural areas to the point that they can no longer support native wildlife is known as habitat loss, one of the greatest threats to native plants and animals. But there is something you can do!

Begin to restore wildlife habitat in your yard by planting and encouraging native plants that provide food and shelter for native species.

A new Web site developed by NC State University's Wildlife Extension Program makes this task easier.

Going Native: Urban landscaping for wildlife with native plants offers expert advice and step-by-step instructions on how to incorporate native plants for wildlife in your yard. A searchable plant database can help you create a list of native species for your landscape. The site includes lists of nurseries that sell native plants.

Discover more by visiting <http://www.ncsu.edu/goingnative/>, or request a copy of *Landscaping for Wildlife with Native Plants* from your county Extension center.

—Charlotte Glen

Tips & Tasks

Ornamentals

- Spring is here, but be cautious. Plant tender annuals and vegetables after the last spring frosts (mid-April is usually a safe planting date in coastal North Carolina).
- Summer annuals and bulbs perform much better when planted in well-prepared beds. Before planting, till and incorporate organic matter, and add lime and fertilizer based on soil test recommendations.
- Prune spring-flowering plants such as azaleas and forsythia after they bloom, if needed.
- Apply slow-release organic or coated fertilizers to landscape beds in mid-spring. Read directions carefully, and do not over-fertilize.

Edibles

- Plant cool-season vegetables such as lettuce, broccoli, carrots, beets, turnips, potatoes, spinach, radishes, and cabbage in early spring. Wait until the threat of frost is past (mid-April) to plant warm-season vegetables such as beans, okra, eggplant, pumpkins, tomatoes, cucumbers, squash, peppers, melons and corn.

Lawns

- Wait until May to fertilize Bermudagrass, St. Augustinegrass, and zoysia, and until early June to fertilize centipede grass.
- Request a copy of the lawn maintenance calendar for your turf type from your local Extension center to find out what should be done to keep your lawn healthy throughout the year. Mowing height and fertilizer rates and timing are different for each grass.

—David Barkley



JC Raulston Arboretum

Showstopper—'Ruby' Lorapetalum

Chinese fringe flower *Lorapetalum chinense* 'Ruby' is an ever-green (or should we say "ever-red") shrub that adds pizzazz to any landscape. Its ruby-red new growth in spring darkens to a deep-burgundy by autumn. Each April, bright pink clusters of fringe-shaped flowers appear to complement the colorful foliage, making this plant a true Showstopper.

Loropetalum or Chinese fringe flower will grow in sun or part shade. Most will easily grow 8 feet tall and wide. 'Ruby' is considered to be one of the more compact cultivars, reaching a mature height of only 5 feet. If another variety is overgrown, prune it into a small, spreading tree.

Use this versatile shrub in an informal hedge, to screen an undesirable view, or with other plants in a shrub border. Once established, 'Ruby' and the other loropetalums are very drought tolerant. —John Vining and Mark Blevins

Sustainability

Honeybees

Be a better hive neighbor, and conserve the honeybees that pollinate our farms and gardens. Honeybees fly from early morning to early evening, collecting nectar, pollen, and water for the hive. If you must apply pesticides, do so in the evening after the bees have gone to bed. Avoid spraying flowers the bees may visit, and avoid powdered pesticides. The bees may collect the powder the next day (as though it were pollen) and return it to the hive with devastating results.

If you see a spring swarm (a large ball of honeybees hanging from a limb, a porch rail, or the eaves of your home), don't panic. Undisturbed honeybees in a new swarm are usually quite calm. Call your local beekeepers club or your Cooperative Extension center immediately to find a beekeeper who will move the bees to a new hive.

—Anne Edwards

Pest Alert — Fire Ants Must Be Monitored

North Carolina's imported fire ant infestation continues to expand, partly because of recent mild winters. Increased residential and industrial development and infestations of fire ants in sod and nursery stock are also factors.

Although red imported fire ants are a nuisance, ants in general are beneficial insects that help to degrade waste and eat other insects. Researchers recommend spot-treating each mound instead of trying to eradicate all fire ants by broadcasting baits over large areas. Native ants will defend their territory and help to prevent red imported fire ants from spreading.

Control is designed around killing the queen. While she lives, she will lay hundreds of eggs daily. It can take several weeks to kill all

the ants in a mound. Fire ant baits and liquid drenches are effective when properly applied. Apply drenches in high-use areas where people are likely to be stung. Ants that come in contact with the liquid pesticide die immediately. There are no guarantees, however, that the queen will come in contact with the pesticide. If she does not die, the mound will survive.

While you may be successful in destroying a fire ant mound, monitoring for future mounds is very important. Don't expect 100% control. New queens will always develop and start new mounds. For more information about fire ants, visit www.ces.ncsu.edu/depts/ent/notes/Urban/ifa.htm

—Karen Neill

Incredible Edible—Blueberries

Blueberries are a wonderful addition to any North Carolina yard! They can be incorporated into the landscape as hedges or planted in mixed borders. You can find out which varieties are recommended for your area from your local Extension center. Regardless of variety, all blueberries require acidic soils to grow well. Testing your soil to find out your pH before planting is critical to success. Blueberries prefer a soil pH of around 4.5. They also need good drainage, but don't like to dry out. Mix composted organic matter into your soil to help retain enough moisture to keep plants healthy.

Plant on a mound to improve soil drainage. Blueberries produce best in full sun. They will also do well in part shade, as long as they get at least 4 hours of sunlight each day.

—Charlotte Glenn



www.ces.ncsu.edu

Extension Gardener provides timely, research-based horticultural information. We publish 4 issues per year. Send comments about **Extension Gardener** to Editor and Team Leader **Lucy Bradley**, Ph.D., Extension Specialist, Urban Horticulture, Box 7609, NC State University, Raleigh, NC 27695-7609

Managing Editor **Will Strader**
 Content Editor **David Goforth**
 Regional Editors
 Coastal Plain **Anne Edwards**,
Charlotte Glenn
 Piedmont **Carl Matyac**, **Mark Blevins**
 Mountains **Donna Teasley**,
Dianne Turner
 Production Editor **Barbara Scott**
 Designer **Karl Larson**

The use of brand names does not imply endorsement by N.C. Cooperative Extension nor discrimination against similar products or services not mentioned.

Distributed in furtherance of the acts of Congress of May 8 and June 30, 1914. North Carolina State University and North Carolina A&T State University commit themselves to positive action to secure equal opportunity regardless of race, color, creed, national origin, religion, sex, age, veteran status, or disability. In addition, the two Universities welcome all persons without regard to sexual orientation. North Carolina State University, North Carolina A&T State University, U.S. Department of Agriculture, and local governments cooperating.

©North Carolina Cooperative Extension **Extension Gardener** may not be reproduced without written permission. Any news media using sections of the newsletter should credit "Extension Gardener, N.C. Cooperative Extension."

<http://extensiongardener.ncsu.edu>



Red imported fire ant