



Extension Gardener

NC STATE UNIVERSITY

NORTH CAROLINA COOPERATIVE EXTENSION

Summer 2011

Empowering
gardeners.
Providing
garden
solutions.

Make Your Landscape “Water-wise”

Water is an integral part of life. Not just the water we drink and bathe in, but ponds, lakes, streams, rivers and coastal waters all contribute to our quality of life here in North Carolina. To conserve and protect these resources, there are a few steps you can take to make your landscape “water-wise.”

Submit a soil sample to the NC Department of Agriculture and Consumer Services, and the testing service will tell you how much lime and the type of fertilizer to use to correct nutrient deficiencies. Apply full rates of fertilizer to plants you want to grow larger. Mature plants need only occasional fertilization to maintain health.

Amend soils with compost. Compost holds moisture for plants and at the same time improves soil structure to allow excess water to drain. Don't just add organic amendments to the planting hole. Apply 3 or 4 inches of organic matter to the soil surface and incorporate it into the plant bed. Never work soil when it is wet.

Match your family's needs to the landscape features, and be realistic. If you use that grass for parties, soccer or chipping practice, then keep the turf. Otherwise, transform a part of that lawn into beds that are either natural areas or just low-maintenance groundcovers, perennials, shrubs or ornamental grasses. If you enjoy large turf areas, consider a drought-tolerant species such as bermudagrass, centipede or zoysiagrass.

Tired of spraying for black spot, leafminers and lacebugs? It hurts only for a short time to throw away plants that are not suited to your environment. There are lots of books and pamphlets that will help you learn about plants that are well-adapted to your local gardening climate. Visit public gardens, your county Cooperative Extension center website and garden centers. Join a garden club or volunteer as a Master Gardener. Here is one website with a complete list of tough plants: www.ncstate-plants.net

Organic mulches on landscape beds conserve moisture and help to moderate soil temperature, allowing for rapid root development. Mulches hold moisture and allow rainfall to penetrate compacted soils.

When rainfall does occur, be mindful of nitrogen and phosphorus fertilizers. If swept into a gutter or storm drain, they will go directly into our streams and rivers. There is no water treatment plant to clean this water before it reaches a stream or river. In addition, never dump oil, paint or solvents into the gutter.

Impervious surfaces such as concrete or asphalt do not allow water infiltration. This causes rapid runoff and greater stormwater management problems. Gravel or paver products allow for water infiltration and thus feed our groundwater supplies.

— Carl Matyac

in this issue

PIEDMONT NEWS

Effective Irrigation

Herbs

The Legacy Garden

Planting Your Rain
Garden

STATE NEWS

Make Your Land-
scape Water-wise

Climbing
Hydrangea

Cane Fruits

Spotted Wing
Drosophila



Upcoming Events

June 4

Star Farmers' Market Opens

454 S. Main St., Star

June 7 (6:30 – 8:30 PM)

June 8 (9:30 – 11:30 AM)

Complete Gardener: Growing Herbs

Chatham County Agriculture Building, 45 South Street, Pittsboro, (919) 542.8202

June 21 (9:30 – 11:30 AM and 6:30 – 8:30 PM)

Complete Gardener: The Soil We Dig

Chatham County Agriculture Building, 45 South Street, Pittsboro, (919) 542.8202

June 22 (11 AM)

Introduction to Local Foods

Montgomery Cooperative Extension, 203 W. Main St., Troy, (910) 576.6011

• Please RSVP by June 17.

July 9 (8 AM – 12 PM)

Second Annual Great Tomato Tasting Festival

NC A&T State University Farm, 3136 McConnell Road, Greensboro

• Pre-registration suggested: Guilford County Extension Office, (336) 375.5876

July 11 (6:30 – 8:30 PM)

July 12, (9:30– 11:30 AM)

Complete Gardener: Soil Fertility & Water Quality

Chatham County Agriculture Building, 45 South Street, Pittsboro, (919) 542.8202

July 16

NC Peach Festival

Downtown Candor

July 20 (11 AM)

Summers' Bounty

Montgomery Cooperative Extension Office, 203 W. Main St., Troy, (910) 576.6011

August 4 (7 – 9 PM)

Successful Gardener: Organic Lawn Care

Union County Agricultural Center, Monroe, (704) 283.3822, unionmg@co.union.nc.us

Smart Gardening — Effective irrigation

The practice of watering plants is as old as agriculture itself. Early irrigation systems were probably gourds used to carry water from a stream to crops. Today we have many different ways to put water on our plants. But do we put it where it needs to be and when it needs to be there?

The “rule of thumb” in the NC piedmont is that plants of all kinds need 1 inch of water per week. What differs is the area being measured. One inch of irrigation water applied to a 100-square-foot flower bed will take a lot less water than 1 acre of farmland. For informational purposes, that’s 62 gallons and 27,154 gallons respectively.

Just how *do* we irrigate our plants more effectively? As always, it starts with the soil. Soil testing will reveal nutrient needs for your plants. Organic matter will feed the microbes that make your soil the living biosphere it truly is. Remember, the best water storage device on earth is soil that’s high in organic matter! Next, observe the

site where you want to plant and create the best environment for your plants by proper installation. After planting, organic mulch 2 to 3 inches deep will lessen soil moisture loss due to evaporation. It breaks down to add more organic matter to your soil as well.

Choose the appropriate system to irrigate your plants. “Appropriate” can mean a \$5 sprinkling can or an expensive irrigation system, but use it “water-wisely.” Water deeply, but not to the point of runoff. Irrigate early in the morning. Wet foliage at night is a great environment for fungal pathogens. If you are blessed by rainfall, check before you irrigate. You can drown your plants. Sandy soils require more water than soils with clay. If the soil is dry to a depth of 1 to 2 inches, it’s usually time to water. Essentially, just use your common sense. That’s one thing gardeners seem to have in ample supply.

— Jeff Rieves

Food Production — Herbs pull double duty

Maintaining a small herb garden in the kitchen or an outdoor flower bed is perfect for busy people who want a garden that can give immediate returns. Pinch off a few oregano or basil leaves here, snip a bit of rosemary sprig there, or use some spearmint leaves to create flavorful fruit dishes or accent hot tea. We could find an excuse to incorporate herbs into nearly all of our everyday meals. Multiple herbs can be maintained in a small space, and they double as companion plants if interspersed among more traditional vegetable garden plants.

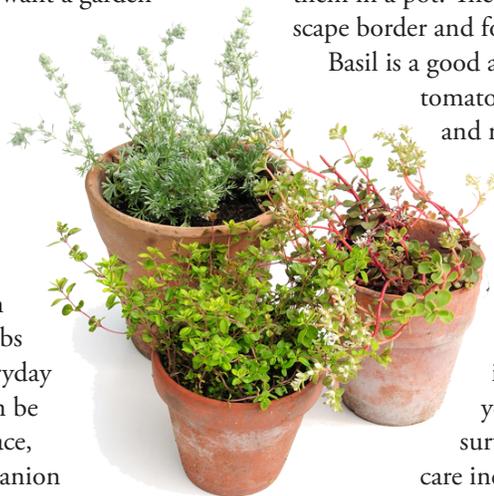
Rosemary is a good companion to cabbage, beans, carrots and sage and will work to keep cabbage moths and Mexican bean beetles away. Planting spearmint can help repel ants and the aphids they maintain for honeydew. Mint plants

often send runners just under the soil surface. To prevent excessive spreading, you can keep them in a pot. The container will act as a landscape border and focal point.

Basil is a good annual companion plant for tomatoes to repel hornworms, flies and mosquitoes. Pinch stems to promote bushy compact growth. Oregano is a nice broad-spectrum pest deterrent that grows well in poor soils. Cover oregano with fall leaves to winterize and enjoy them the next year. Other herbs that can survive the winter with proper care include rosemary, thyme, mints, lemon verbena, lemon balm, lavender and chives.

Planting just a few of these fragrant and tasty herbs is an easy way to be a successful gardener! Find out more by calling your local Extension center, or visit www.ces.ncsu.edu.

— Aimee Rankin



Garden Spot — *The Legacy Garden*

The Legacy Demonstration Garden serves as an outdoor classroom for Cooperative Extension and its Master Gardener volunteers. All within an acre, you can find a shade garden, a butterfly garden, bog plants, a winter interest garden, hortitherapy beds, intense vegetable production, a water feature and a composting site. This year we have installed a rose trial garden as well as a fruit garden, which helps us further promote edible landscaping.

The garden was planned and installed by Master Gardener volunteers using the principles from the Carolina Yards and Neighborhoods program, a water quality and water conservation program. Plants were selected for drought tolerance as well as insect and disease resistance. Integrated pest management practices are adhered to as an effective and environmentally sensitive approach to pest management. Three cisterns have been installed, along with a rain garden and wetland to address stormwater issues and water quality. Grants and donations have helped fund this garden. One



The 1-acre Legacy Garden includes all kinds of demonstration gardens, from a butterfly garden to a shady grove.

grant in particular, the Syngenta crop protection community grant, enabled us to build a teaching pavilion that is used by many school and 4-H groups.

All of this makes the garden attractive *and* educational. The garden is free and open to the public seven days a week from sunup to sundown at 3309 Burlington Road in Greensboro. Call (336) 375.5876 for more details.

— Karen Neill

Environmental Stewardship — *Planting your rain garden*

Use container-grown plants with well-established root systems. It's fun to sow native wildflower seed, but experience shows that this doesn't work too well in a rain garden. Flooding, weeds and garden pests will be hard on your seeds, and the garden will be mostly weeds for the first few years. You can start plants from seeds indoors, grow them for a few months and then move the plants outdoors. You might be able to get transplants from a gardening friend, or you could participate in a plant rescue where groups dig up plants from construction sites before the heavy equipment moves in.

Plants that are native to your area should need the least maintenance – they have adapted to the climate and rely on the insects that live in your area. There are many spectacularly beautiful plants that are native to North Carolina to choose from. Where you live and where you place your garden will determine what type of

plants are best for you. Associated plant lists are available for different regions of North Carolina online: <http://www.bae.ncsu.edu/topic/raingarden/plants.htm>

Planting several species in your rain garden can create a long flowering season, and give your garden depth and dimension. Lay out the plants in the garden before putting them into the ground to see how they will look. Dig the hole for each plant twice as wide as the plant container and deep enough to keep the crown of the young plant right at the soil line, as it was in the container.

Water immediately after planting, and then water twice weekly (unless rain does the job for you) until the plants are well-established. After the first growing season, you shouldn't need to water the plants unless there is a lengthy drought.

— Kelly Collins

Tips & Tasks

Lawns

- Fertilize warm-season grasses, but do **not** fertilize tall fescue and bluegrass until fall.
- Take soil samples from your lawn and garden areas for testing. Soil testing materials are available at your county Extension center.
- Remember to change direction when moving your lawn to prevent wear patterns and other problems. Travel north to south on one mowing and east to west on the next.
- In late August, prepare the lawn for seeding or renovation of tall fescue and bluegrass lawns.

Ornamentals

- Watch for bagworms and Japanese beetles. Ask for control recommendations when you visit your county Extension center.
- Summer is a good time to see if and where your home can use some additional shade trees.
- Spray programs are available for roses, fruit trees and more from your county Extension center.

Edibles

- Renovate your strawberry bed. Prune raspberry and blackberry canes at ground level after harvest.
- Begin your fall vegetable garden by planting beans, carrots, Brussels sprouts, and tomatoes in July. Wait for August to plant lettuce, winter squash and other late-season favorites.
- Blossom-end rot may be seen on tomatoes and peppers. Two major causes are inconsistent water and insufficient calcium, so water frequently and follow your soil test results.

— Mark Blevins



Sustainability

Garden Chickens

More and more homes now sport a small, often ornate, very functional outbuilding: a chicken coop! Backyard chickens can easily and beautifully fit into an integrated, sustainable home food system. Garden hens provide value as they turn kitchen and garden waste into two commodities: eggs and manure. In their first productive years, each laying hen will produce close to four eggs every five days. So just four hens will easily provide two dozen eggs a week! The last and often best benefit for gardens is the manure that hens provide. Once composted, it is a perfect supplement for all garden soils. Garden hens can be a key part of a sustainable landscape, serving as recyclers of waste and providers of a key nutritious food — with a quality and manner of production you control.

— Anne Edwards

Pest Alert — Spotted Wing Drosophila

The spotted wing drosophila (SWD, *Drosophila suzukii*) was first found here last summer and has now been found at several locations in the state. Most drosophila species (vinegar or fruit flies) lay their eggs in overripe fruit. The spotted wing drosophila is different; it lays its eggs in good fruit, too. Blueberries, cane fruits, figs, bunch grapes, peaches, plums and strawberries, among other fruits, can be affected.

Make sure to remove overripe fruit, especially if you live close to a commercial strawberry field, orchard or vineyard, so any infestation won't spread. Even though SWDs can lay eggs in non-overripe fruit, doing that takes more effort than laying eggs in overripe fruit. Bag the fruit

that you aren't going to use, and let it "cook" in the sun in the sealed bag before putting it in a compost pile.

Pesticides are not currently recommended for managing SWDs in home gardens, although they are for commercial plantings when SWDs have been detected in the area. A pesticide needs to be selected carefully. The product needs to be effective on SWDs and safe to use on ripening fruit close to harvest.

For more information, see the following blog from NC State University: <http://ncsmallfruit-sipm.blogspot.com/search/label/SWD>

— Mary Helen Ferguson

Showstopper — Climbing hydrangea

Looking for an ornamental vine with year-round interest? The climbing hydrangea (*Hydrangea anomala petiolaris*) is the plant for you. With its rich green foliage, midsummer white flowers and striking exfoliating bark in winter, this deciduous vine makes a statement in any season. According to Donald Wyman, respected American authority on woody plants, "there is no better climbing vine." Climbing hydrangea is excellent for a massive effect on brick or concrete walls, arbors, gazebos or most any freestanding garden structure. This woody vine has an almost shrub-like appearance due to its lateral branches. It is somewhat slow to establish and prefers rich, well-drained, moist soil. It will grow in sun or shade and can easily grow 60 to 80 feet in its lifespan. Introduced in 1865 from Asia, this vine should find a home in most NC landscapes.

— John Vining

Edibles — Cane fruits

Blackberries and raspberries make excellent additions to the landscape. The fresh fruit is delicious and high in antioxidants. Plus the fruit makes an excellent wildlife food. More than 100 species of birds feed on blackberries. Cultivar selection is very important. 'Navaho' and 'Triple Crown' are good blackberry choices for gardeners statewide. Both have great taste and no thorns. Raspberries prefer the cooler climates of the mountains where gardeners can choose several varieties. In the piedmont, 'Heritage' is the best choice for floriculture while 'Caroline' and 'Jocelyn' are good choices for primocane culture. 'Southland' or 'Dormanred' may satisfy gardeners in the coastal plain.

You may get by without using pesticides, but control measures must be taken for insects and disease. In particular, manage the raspberry crown borer and rednecked cane borer.

— David Goforth

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 **Charlotte Glenn**
Piedmont **Carl Matyac, Mark Blevins**
Mountains **Donna Teasley,
Dianne Turner**

Production Editor **Viki Balkcum**

Designer **Karl Larson**

Photos courtesy JC Raulston Arboretum unless otherwise noted.

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."

11-CALS-2664—6/11

<http://extensiongardener.ncsu.edu>



Spotted wing drosophila
Drosophila suzukii or SWD

© Beverly S. Gerdeman,
WSU NWREC