



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

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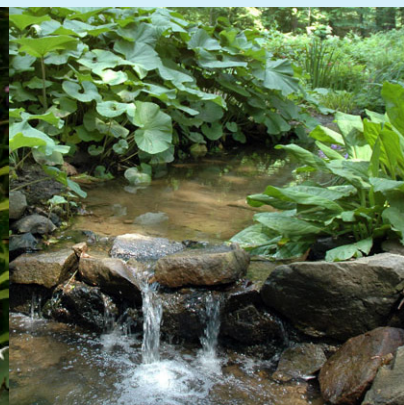
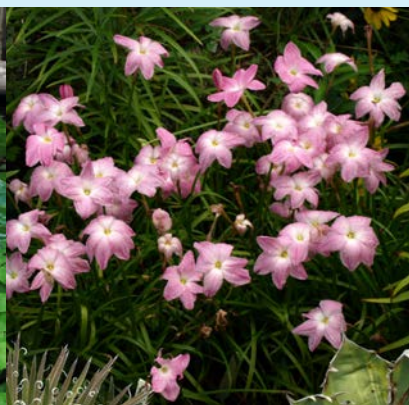
STATE NEWS

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Smart Gardening — Preparing for hurricane season

As hurricane season approaches, homeowners often ask how they can prepare their yards for a storm. Begin by assessing the landscape's current condition. Take photographs of significant plantings to help with insurance claims or recovery efforts. This will also help in identifying broken, dead or pest-damaged branches that require immediate removal. Otherwise, these pieces can act as projectiles during heavy wind.

Make a list of additional items in the landscape that need to be removed or secured before a storm, including yard debris, hanging baskets, flowerpots, patio furniture, arbors and trellises. Remember, everything is vulnerable.

Trees are especially vulnerable. Weak trees, trees with narrow forks and branches, recently damaged trees and those in poor growing conditions or with disease or insect problems are most susceptible to wind damage. Trees growing singly rather than in a group are more likely to be damaged.

Prevent tree damage by promoting tree

health. Damage to trunks and roots increases hazard potential. Protect tree roots and trunks by keeping traffic and equipment well away. Avoid heavy mulch application at the base of trees. Secure young, newly planted trees with stakes to reduce wind damage.

When planting new trees, choose species adapted to your yard that have a good record of storm survival. Trees for the NC coastal plain that have made it through hurricanes with minimal damage include live oak, bald cypress, southern magnolia, river birch, hickory, crape myrtle, yaupon, American holly and sabal palm. Weak-wooded, damage-prone trees commonly found in landscapes include pecan, Bradford pear, Leyland cypress, lacebark elm, red and silver maples, green ash, pines, laurel and water oaks, and tulip poplar. Avoid planting these trees close to structures.

To learn more, visit the University of Florida's "Trees and Hurricanes" website: <http://hort.ifas.ufl.edu/treesandhurricanes/>

— Katy Shook

Upcoming Events

June 20 (5 PM)

Alive at 5: Featuring Daylilies

Wilson Botanical Gardens, 1806 SW

Goldsboro Street, Wilson

• (252) 237.0113

June 23 (8:30 AM – 3:30 PM)

Get Growing Garden Camp

New Hanover County Cooperative

Extension, 6206 Oleander Dr.,

Wilmington

• <http://newhanover.ces.ncsu.edu/>
or (910) 798.7660

• For ages 9 – 12. Plant a crazy container garden; bring your own container. \$15

June 30 (7 – 8:30 PM)

Pender County Beekeeper Meeting

Pender County Cooperative

Extension, 801 South Walker St.,

Burgaw

• <http://pender.ces.ncsu.edu/>
(910) 259.1235

July 12 (9 AM – 4 PM)

Kids in the Garden Day Camp

Pender County Cooperative

Extension, 801 South Walker St.,

Burgaw

• <http://pender.ces.ncsu.edu/>
(910) 259.1235

• A hands-on gardening

experience for ages 5 – 10. \$15

July 18 (5 PM)

Alive at 5: Melon Tasting

Wilson Botanical Gardens, 1806 SW

Goldsboro Street, Wilson

• (252) 237.0113

August 15 (5 PM)

Alive at 5

Wilson Botanical Gardens, 1806 SW

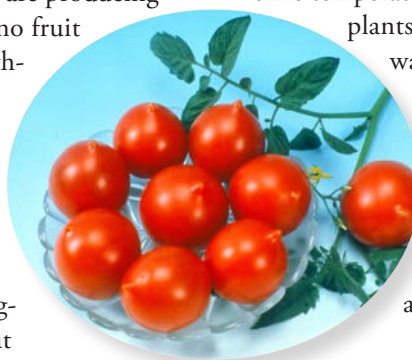
Goldsboro Street, Wilson

• (252) 237.0113

Food Production — Vegetables and summer's heat

When temperatures start to rise in summer, there is a common problem you may encounter in your vegetable garden. You may notice that your plants are producing lots of flowers, but little to no fruit is being set, resulting in nothing to harvest. While this problem is most noticeable on tomatoes, it also affects peppers, beans, squash and several other summer crops.

What causes summer vegetables to appear healthy but fail to produce? Shade or too much nitrogen could do this, but in mid-summer blame the heat. Research has shown that as daytime temperatures rise over 90 to 95°F and nighttime temperatures above 70 to 75°F, fruit set in many vegetables declines and in some cases stops. This is partially due to poor pollen or sterile pollen production during high night temperatures. Without viable pollen, plants cannot set fruit and flowers abort or drop off.



Another reason is water stress during the heat of the day. Plants need water to fill the cells of the fruit being produced. When daytime temperatures reach up into the 90s, many plants have trouble moving enough

water into their leaves to keep them from drooping, even when there is enough water in the soil. When plants can't keep their leaves full of water, they also don't have the water to spare for producing fruits such as tomatoes, peppers or beans.

Fortunately, one day of these extreme temperatures is not enough to cause a stop in production. Instead, it's the accumulation of five to seven days or more in a row that causes problems when it comes to production. There is little gardeners can do to prevent low production during heat waves except to keep plants healthy during these extreme temperatures so when the temperatures cool down a little, production will start back up.

— Shawn Banks

Garden Spot — Green Swamp Preserve

Some of our state's most amazing gardens are actually native plant communities planted and tended by nature rather than people. One such natural garden can be found in the Green Swamp Preserve, an amazing 17,000-acre plant community managed by the Nature Conservancy, located near Supply, NC, in Brunswick County.

Walking trails lead visitors through some of our country's finest remaining longleaf pine savanna habitat, which supports a thriving plant and bird population that includes red-cockaded woodpeckers. Native plants that can be seen include 14 species of carnivorous plants, such as pitcher plants and Venus fly traps, multiple native orchids and many more. Many plants in the Green Swamp benefit from periodic fires, including the pond pine, longleaf pine and wiregrass.

While there is always something to see in the



The Green Swamp Nature Preserve is home to the native plant communities of long-leaf pine savanna forests and pocosin bogs.

Green Swamp, plant lovers should plan to visit from late spring through fall to see the greatest number of flowering plants. Be aware that part of the preserve is open to hunting. A parking area for the Green Swamp Preserve is located 5.5 miles north of Supply on NC Hwy 211.

— Charlotte Glen

Environmental Stewardship — Make every drop count

Using irrigation water efficiently is an important part of sustainable landscaping. A typical landscape can be renovated for water conservation by relocating high water use plants to more suitable locations on the property or by modifying plant bed shape to simplify irrigation. Considerable savings can result from converting irrigated turf areas to ground cover or natural areas. In addition, large amounts of water can be saved by simply changing how and when you water your lawn and garden.

The best time to water landscape plants and turf is during the night, from dusk to dawn. Less evaporation occurs during this time because there is less wind, lower temperatures and less sunlight.

Apply water slowly to avoid runoff. Trickle and drip irrigation improve absorption into the soil. These irrigation methods deliver water directly to the plants' roots, avoiding loss to wind and evaporation. These techniques also reduce the spread of disease by keeping leaves dry.

Install timers on irrigation systems to manage application. Attaching an inexpensive rainfall sensor to your irrigation timer will prevent the system from operating if significant rainfall occurs.

As water needs change during the growing season, timers should be reprogrammed. During summer, 1 inch of water per week is recommended on established plants, vegetables and turf. A thorough soaking of the soil once a week is much better for plants than frequent light irrigations that encourage shallow root systems and reduce plant drought tolerance. An exception is in sandy soils, where irrigation applications should be split by applying ½-inch of water twice a week. Visit these websites for more information on water conservation in the landscape:

www.40GallonChallenge.org

<http://www.bae.ncsu.edu/programs/extension/ag-env/publicat/turf.html>

— Peg Godwin

Tips & Tasks

Summer Chores

- Water according to plant needs. Vegetables and newly established plants require more frequent watering than established lawns and plants. Sandy soil requires more frequent watering than heavier soils.
- Mulch plants to conserve moisture and reduce weeds.
- Drip irrigation and soaker hoses deliver water to the root zone without wetting leaves. Moisture on leaves can contribute to disease development. If you must use sprinklers, water early in the day so leaves dry quickly.
- Provide appropriate support for fruit and vegetable plants such as tomatoes. Trellises and staking will reduce disease and make maintenance easier.
- Harvest fruits and vegetables as they ripen. Remove over-ripe, damaged or diseased fruits immediately to help control diseases and insects.
- Watch for insects and diseases. If you find an insect or disease, have it identified by your Extension agent and get recommendations for control.
- Mow lawns regularly and at the correct height to promote dense turf and reduce weeds. Centipede, Bermuda and zoysia should be mowed to 1 inch, while St. Augustine should be mowed at 3 inches.
- Deadheading promotes new blossoms for many annuals and perennials.
- Remove weeds before they set seed.

—Lisa Rayburn



Sustainability

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

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

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 florican culture 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

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



Spotted wing drosophila
Drosophila suzukii or SWD

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