



# Extension Gardener

NC STATE UNIVERSITY

NORTH CAROLINA COOPERATIVE EXTENSION

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Empowering  
gardeners.  
Providing  
garden  
solutions.

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## Ornamental sweetpotatoes

When looking for annuals to fill the summer garden, don't overlook the many possibilities that ornamental sweetpotatoes (*Ipomoea batatas*) present. Known for their ability to spread over a large area and fill in gaps under and between other annuals, ornamental sweetpotatoes are great for providing color all season long. Colors range from light green to deep purple, with a wide range of colors in between, including shades of pink and rusty red.

Many older varieties produce large roots and very long vines, making them excellent for use as a groundcover under taller summer annuals but less good for use in small or medium container gardens. A sweetpotato breeding program at North Carolina State University has developed several new varieties. First introduced in 2002, the Sweet Caroline series of ornamental sweetpotatoes grow more slowly, have smaller storage roots, and offer a variety of leaf shapes, colors, and sizes, so they're perfect for smaller containers such as hanging baskets and patio containers. Plants that are part of the more recently developed Sweet Caroline Sweetheart series come in a wide range of colors and have heart-shaped leaves, while Illusion series varieties have leaves that are deeply lobed, producing finger-like projections. The Sweet Caroline series plant named Bewitched Improved, which produces dark purple leaves on compact, bushy

plants, is perfect in a stand-alone container. NC State's breeding program continues to work on producing plants that have a bushy habit, are free flowering, and have filigreed leaves.

Growing ornamental sweetpotatoes is simple. Although they are adaptable to a wide range of soils, they don't grow well in heavy or poor soil. They grow best where the soil has been amended with compost prior to planting. Water them just before they get to the wilting point, and fertilize them once a month for best growth. Ornamental sweetpotatoes are heat-loving plants that do best when planted in full sun. When located in a heavily shaded area, their colors are less intense, and more green appears in the leaves. If plants get too large for their space, simply pinch them back.

Plants that are kept healthy and vigorously growing will have few insect pests. Beetles may become a problem in some plantings; they can be removed by hand or with insecticides. Deer, rabbits, and voles will also find ornamental sweetpotato vines a tasty treat. Take measures to exclude these four-legged pests if possible, or use repellents to keep them at bay. Diseases that may affect ornamental sweetpotatoes include fusarium wilt, root-knot nematode, and southern blight. Avoid these by purchasing disease-free plants and rotating the locations where you plant them each year.

— Shawn Banks



Meri Reeber, NC State University

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## Extension Showcase

### Client Saves Money by Using Extension Advice

Home gardeners who move to North Carolina for jobs, retirement, or other reasons come from a wide range of geographical locations and backgrounds. In an anonymous survey of Extension clients, one such gardener reported that, prior to participating in Extension programs, “much of my gardening was hit and miss.”

Since this client began using Extension programming, the client has implemented integrated pest management to control garden and household pests, learned and used diagnostic skills to solve problems, learned and used appropriate plant management and fertilization practices for lawns and gardens, selected plants based on site analysis, increased the amount and/or variety of available food, and used good pruning practices.

This client reported that Extension “has helped me make appropriate decisions in the garden. Knowing the proper way to approach an issue has saved time, effort, and money because I’m making the right decisions in soil preparation, plant and shrub selection, planting, and pruning.” This client estimated a savings of \$6,025 in pest management expenses plus an additional \$750 per year in recurring savings based on appropriate plant selection, water conservation, and improved lawn management.

— Al Cooke

## Smart Gardening — Right plant, right place

Many landscape problems can be avoided by planting the “right plant in the right place.” The first step is to know your hardiness zone. Most of the piedmont is in US Department of Agriculture plant hardiness zones 7a or 7b. Plants selected for our area should be rated as hardy to zone 7 or cooler, to survive our winters. Some plant professionals also use the American Horticultural Society’s heat zone map because heat tolerance is sometimes more important than cold hardiness.

Next, you need to know your soil. Most of us in the piedmont have heavy clay soils. When a plant label says “needs well-drained soils,” that does not describe our native soils. You can amend your soils with soil conditioners and organic matter, but soil cannot be changed overnight, and without regular amendment, it will revert to its natural state.

Another step in finding the right plant is knowing your year-round sun exposure. An



These plants are planted too close together and have grown so large that they are blocking the front door. Photo by Mark Danieley.

area that is partially shaded in December could receive full sun to partial shade in the summer. As a general rule, a north-facing side will have less sun, and a south-facing side will have more sun. Also, an eastern exposure will typically be cooler, and a western exposure will be hotter.

In addition to looking at your soil and light exposure, you should also stand at the site and look upward before planting anything. If there are power lines, eaves, or other height-limiting factors, make sure you choose plants that won’t become too tall when they mature. Remember that height ranges are just that: ranges. Plants can easily exceed the range listed on their tags.

One last thing to consider before creating your list of the right plants is water requirements. When you plant, create groups of plants that have similar water requirements to save yourself time and money.

— Amy-Lynn Albertson

## Food Production — Blossom end rot

Have black, leathery spots ever developed on the blossom ends of your tomatoes or squash? If so, your plants probably had blossom end rot, a common disorder.

Blossom end rot is a localized calcium deficiency and will not spread from one plant to another. It is most often seen on tomatoes and squash but also affects peppers, eggplant, melons, cucumbers, and zucchini.

Calcium moves into a plant with water taken up from the soil. Blossom end rot can be a result of calcium-deficient soils, but that is not always the case. The disorder can also be caused by inadequate soil moisture or overfertilization and is sometimes associated with low pH. All of these conditions interfere with calcium uptake by plants.

Irrigating during periods of dry weather may help reduce the incidence of blossom end rot. During the growing season, plants require 1 to 1½ inches of water per week. A 2- to 3-inch layer of organic mulch, such as straw or pine

needles, will help keep soil moisture consistent.

When soil is limed to make it less acidic, the lime supplies calcium. Strive for a soil pH between 6 and 6.5. To determine the pH of your soil, submit a soil sample to the North Carolina Department of Agriculture and Consumer Services.

Another common cause of blossom end rot is overfertilization. High nitrogen promotes rapid growth, and plants that are growing quickly cannot move enough calcium to the fruit. To avoid overfertilizing, follow soil test report recommendations or use slow-release fertilizers.

Root damage can also increase the incidence of blossom end rot. Damage can result from high soil temperatures, extended periods of wet soil, and hoeing too close to the plant roots.

Blossom end rot is a common disorder, but it can be avoided. For more information, visit <http://www.ces.ncsu.edu/depts/pp/notes/oldnotes/vg19.htm>.

— Amanda Taylor

## Pest Alert — Azalea lace bugs

**A**zalea lace bugs are one of the most damaging pests of evergreen azaleas in North Carolina. They get their name from the adult's lace-like wings and hood. Adult azalea lace bugs are about 1/8 inch long and 1/16 inch wide, cream colored or clear, with brown and black markings on their wings. They feed on the undersides of leaves, where they leave dark spots of excrement. Lace bugs overwinter as eggs inserted into azalea leaves and emerge in spring in North Carolina.

While minor damage may go unnoticed, lace bugs often cause the upper sides of leaves to look bleached out due to the presence of numerous yellow spots. Affected leaves may drop off the shrub. Most azaleas in the landscape have some lace bugs present; however, these

insects often cause greater problems for plants that are stressed. Providing proper growing conditions and including a variety of plants in the landscape are the first steps to prevent azalea lace bug problems.

If insecticides are needed, treat this pest when it is in the immature stage in spring and follow up with a second application in 7 to 10 days. Horticultural oils and insecticidal soaps are good choices for homeowners and are compatible with beneficial insect populations. For

more information on lace bugs, contact your Cooperative Extension Center or visit [www.ces.ncsu.edu/depts/ent/notes/O&T/shrubs/ort039e/ort039e.htm](http://www.ces.ncsu.edu/depts/ent/notes/O&T/shrubs/ort039e/ort039e.htm).

— Colleen Church



Jim Baker, NC State University, [bugwood.org](http://bugwood.org)

## Environmental Stewardship — A Carolina yard benefits nature

**I**t may surprise you to know that what you plant in or remove from your yard and the techniques you use to manage pests and weeds can affect the quality of North Carolina's air, water, and land. By adding too much fertilizer or disregarding label directions when you spray pesticides, you could disrupt the food chain by accidentally killing honeybees and other beneficial insects.

You can have a more sustainable landscape by incorporating nine simple principles into your gardening practices. In the long run, implementing these principles will save you time, energy, and money, while improving the health of our natural resources. •

• **Right plant, right place.** Different conditions often exist in the same yard, so first observe the variety of conditions present in your yard. Then purchase plants that fit each site's conditions (e.g., soil type, amount of light).

• **Recycle.** Recycling yard debris provides free mulch and returns valuable nutrients to the soil.

• **Water efficiently.** Design your yard so it thrives on normal rainfall amounts. During drought, watch for signs that watering is needed, rather than watering based on the calendar.

• **Mulch.** Apply three inches of mulch around plants to hold moisture, moderate soil

temperatures, reduce erosion, control weeds, and provide aesthetic appeal.

• **Protect the waterfront.** If you live by a lake or river, incorporate shorescape gardens of perennials, shrubs, and trees to absorb nutrients and provide wildlife habitat.

• **Fertilize appropriately.** Overapplication of fertilizer aggravates insect and disease problems and forces excessive growth. Apply fertilizer based on soil test results.

• **Manage yard pests.** Allow beneficial insects to control pests naturally, and save some of those "weeds" for pollinators. Weeds usually provide the first flowers of the season!

• **Reduce stormwater runoff.** Rainwater runs off landscapes into storm drains that dump straight into creeks. Capture rain for reuse, or direct it into rain gardens.

• **Attract wildlife.** Providing adequate food, water, and shelter can increase the variety of animal species that live in your yard.

Please remember that every action has an effect on the environment around you. If you are unsure of a pesticide's use or potential harm to bees, please contact your local Cooperative Extension agent (contact information available at [www.ces.ncsu.edu](http://www.ces.ncsu.edu)).

— Wendi Hartup

# Tips & Tasks

## Summer Chores

Make a habit of walking your garden at least once a week to scout for problems. The sooner you find them, the easier they are to fix.

## Edibles

- Enjoy the harvest. Check with your Extension office for guidelines on how to safely preserve food for later.
- Continue planting summer crops such as beans, melons, corn, cucumbers, eggplant, peppers, okra, peas, squash, and tomatoes.
- As spring plantings fade, remove declining plants and clean up debris.
- Remember that July and August is the time for planting the fall garden.

## Ornamentals

- Watch for lace bug on azaleas, rhododendrons, cotoneaster, and pyracantha.
- Hand-pick or treat bagworms early in the summer before they do extensive damage.
- Use water wisely. Established trees and shrubs should not need regular irrigation.

## Lawns

- Keep bermuda and zoysia lawns mowed at 1 inch to keep them thick enough to suppress weeds. Mow often enough to remove no more than one-third to half of the height.
- Fertilize bermuda and zoysia a couple of times during the summer. Do not fertilize fescue before Labor Day.
- Practice "grasscycling." Let the clippings fall to provide organic matter for your soil, recycle nutrients, and reduce water needs.

— Al Cooke



John Vining

## Showstopper — 'Pocomoke' crape myrtle

"Truly amazing" are the words often used to describe the dwarf "Pocomoke" crape myrtle. Released by the U.S. National Arboretum in 1998, this cultivar of crape myrtle features deep rose-pink flowers in mid- to late summer. Perhaps its most striking attribute is its mature height: Pocomoke only grows 20 inches tall, with a spread of 35 inches.

Pocomoke thrives under the same cultural conditions as a typical crape myrtle. Plant it in full sun to ensure a beautiful floral display in July and August. This drought- and disease-tolerant plant needs a spacing of 3 feet between shrubs. Like all crape myrtles, Pocomoke is a deciduous shrub that drops its foliage each autumn. Ideally suited for residential settings, Pocomoke can be included in large mass plantings or in small groups to create a low-growing hedge. If seasonal color and a low-growing mature height are important to you, then this is the showstopper plant for your garden.

— John Vining

## Helping You Grow

### TurfFiles Website Provides Online Help

TurfFiles ([www.turf-files.ncsu.edu](http://www.turf-files.ncsu.edu)) is the website of the Center for Turfgrass Environmental Research and Education at North Carolina State University. The site provides information about turfgrass management and potential pest problems, and it offers decision aids for identifying weeds and diseases. The site includes a tool called the Turf Irrigation Management System (TIMS) that provides guidance on when and how much to irrigate North Carolina lawns. The creators of TIMS estimate that homeowners can reduce lawn irrigation by at least 25% when they use TIMS to determine when to irrigate. TIMS is available at <http://turf-ims.ncsu.edu>.

— Della King

## Edibles — Kudzu bugs

There is a new bug in town that could cause problems for some of the crops in your summer vegetable garden. First introduced into the Atlanta area in late 2009, kudzu bugs have rapidly spread throughout much of the South, including all regions of North Carolina.

Kudzu bugs can only feed on legumes, or plants in the bean family. Their favorites are soybeans and kudzu, an invasive weed found in much of the South, but they may also hurt summer crops of butter beans, green beans, and southern peas such as field peas. This summer, gardeners should watch for evidence of this new pest in these crops.

Kudzu bugs will congregate on many other plants, such as fig bushes, apple trees, and willow trees, but they won't damage these plants. For information on controlling kudzu bugs, contact your local Extension office.

— Charlotte Glen

## Sustainability — Protecting pollinators

Pollinators, such as honeybees, butterflies, and hummingbirds, are crucial to the life cycles of many flowering and fruiting plants. Home gardeners need to recognize what they can do to protect and promote pollinator populations.

One of the best ways to support a pollinator population for the home garden is to grow plants in a variety of colors, sizes, and life cycles, to attract a variety of pollinators. Clumping plants together rather than planting them separately provides nice bursts of

color in the landscape while also helping to attract pollinators. Select plants that are good sources of nectar, such as sunflowers, asters, and zinnias. Fruit trees, such as apples, blueberries, and plums, are also good sources of nectar. Choose plants that flower at different times throughout the growing season to provide longer periods of nectar and pollen availability.

Once a pollinator population is established, keep the population thriving by taking protective measures to ensure that their

habitat is safe. Avoid insecticide use if at all possible. The simplest alternative to insecticide is to remove nonbeneficial insects by hand. Some gardeners may choose to accept some insect activity to protect pollinators and other beneficial insects. If an insecticide is needed, select the insecticide that is the least toxic to pollinators, and apply it late in the evening, when pollinators are less active. Also, use a liquid spray rather than a dust, to limit pesticide residues.

— Howard Wallace