



Extension Gardener

NC STATE UNIVERSITY

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Empowering
gardeners.
Providing
garden
solutions.

in this issue

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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

Onslow County Farmers' Market: Growing Strong

The Onslow County Farmers Market, located at the Onslow County Extension office since 1998, enjoys a strong following of several hundred loyal customers each Saturday. With vendors selling fruits, vegetables, crafts, and even fresh flounder, there is something of local origin for everyone.

Larry Kent, manager of the market, attributes the market's success to the many partnerships it has developed over the years. From the dependable volunteer base of Master Gardeners answering plant- and garden-related questions to the cadre of 20 different musical acts providing free live music, the local flavor and atmosphere cannot be matched by any grocery store. A great working relationship with the local newspaper also helps Kent keep the community informed about all the market has to offer. These elements combine to provide the foundation for a thriving, exciting market environment where there is always something new to see and buy.

A farmer educational program delivered by the Onslow County Extension office continues to develop new vendors and promote horticulture entrepreneurship. In 2012, five new produce vendors joined the market, extending the range of products sold there. The Onslow County Farmers Market is a great example of how hard work and dedication can create a valuable community asset.

— Nicole Sanchez

Smart Gardening — Kitchen scraps for gardening success

If you save your kitchen scraps instead of throwing them away, you'll be on your way to gaining a valuable ally in your garden: compost.

By adding kitchen scraps to your compost pile each week, you'll provide the moisture and constant supply of nitrogen a compost pile needs to decompose quickly. Leftover fruits and vegetables, eggshells, coffee grounds, and tea bags are all good for compost. (Don't add meats or greases to compost. Many gardeners store food scraps next to the kitchen sink in a resealable plastic container. When the container gets full, or the next time you go out to the compost pile, take the container to the pile and add the scraps to your compost. Some people store kitchen scraps in the freezer in a resealable plastic bag between trips to the compost pile.

You can also create your own indoor worm-powered composter in a 2' x 3' x 8" plastic bin with a lid. Add food scraps and moist, shredded newspaper bedding, and the worms will do the

rest. A bin this size will accommodate the food waste of four to six people.

If you don't have a compost pile, you can still use kitchen scraps to improve your soil by practicing "lasagna gardening," also called sheet composting. Place your kitchen scraps on the ground in a 1-inch layer in a vacant garden space. Then put a 1-inch layer of carbon-rich mulch, such as brown leaves or straw, on top of the scraps to prevent odors from attracting unwanted animals. Keep a supply of mulch near your sheet-composting area. Each time you take kitchen scraps out, deposit them in a different location, cover them with mulch, and let the earthworms, pillbugs, insects, and microorganisms break the scraps down and improve the soil. When the next gardening season comes, plant right in the improved area, or cultivate first to mix the broken-down material into the soil. Many people use this technique in small vegetable gardens.

— Danny Lauderdale

Food Production — Growing blackberries

Blackberries are one of the easiest fruits to grow in home gardens. Each plant can produce about 20 pounds of fruit, beginning when they are only two to three years old.

Blackberries are classified according to three different growth habits: trailing, semitrailing, and erect. Erect and semitrailing varieties are more upright and should be spaced 3 to 4 feet apart, and trailing varieties require 6 to 8 feet between each plant. For all types of blackberries, the canes need to be supported by a trellis system or stakes.

Early spring is the optimum time to plant blackberries. Select a site in full sun with well-drained, sandy loam soil, and give the plants plenty of room to grow. During the growing season, plants need about 1 inch of water per week; however, during fruit development each plant will need approximately 2 gallons of water per day. Mulching around the plants will reduce moisture loss and minimize weed growth.

Similar to other fruiting plants, blackberries require proper nutrition to promote healthy growth. Select a complete fertilizer such as 10-10-10 and apply at a rate of 5 pounds per 100-foot row, or 3 ounces per plant.

Fruits that are dull black in color are ripe and at their peak sweetness, ready for harvest. However, if you need to hold the fruit before eating, pick blackberries with a shiny black appearance because they will last longer in the refrigerator.

Fruit harvest is not the last chore when it comes to growing blackberries. After the season's harvest is complete, prune all the old fruiting canes. Erect varieties will require an additional pruning during the winter to reduce the length of the lateral branches to approximately 12 to 16 inches. As new canes develop, be sure to provide support by tying them to a stake or support structure. Check with your local Extension agent for blackberry varieties recommended for your area.

— Della King



Scott Bauer, USDA
Agricultural Research Service,
bugwood.org

Pest Alert — *Indian wax scale*

Indian wax scale attacks several woody plant species in North Carolina, including Japanese holly, *Euonymus*, *Pyracantha*, and boxwood. Infestations can occur on foliage, stems, and branches. Heavy infestations can cause chlorotic spotting on leaves (which may shed prematurely), dieback of stems, and wilting. In addition, heavily infested plants will often be coated with black, sooty mold.

Effective control of scale insects relies on careful timing of insecticide applications. Female Florida wax scale adults overwinter to produce eggs in May. Crawlers begin hatching in early summer. This is when the insect is most vulnerable to pesticides. Once the crawlers insert their sucking mouthparts into the host plant, they do not change locations again.

To control wax scale, remove heavily infested twigs or branches. Once the crawlers begin emerging in early summer, apply horticultural oils, insecticidal soaps, or a contact or systemic insecticide. Because of their extended emergence period, which happens over two to three weeks, it is important to reapply oils throughout this time period.

If insecticides are needed, treat this pest



USDA Agricultural Research Service, bugwood.org

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.

— Susan Brown

Environmental Stewardship — *The importance of composting*

Approximately 20% of waste in municipal landfills consists of compostable material from yards, gardens, and kitchens. Instead of throwing all that compostable waste away, recycling it through composting will benefit both your home garden and the overfilled landfill.

Farmers and gardeners used to return vegetation and food byproducts to the land as a way to reclaim the nutrients those plants absorbed while growing and put them back in the soil. In today's quest for ease and convenience, we eagerly send our kitchen waste, lawn debris, and grass clippings to the landfill, interrupting the return flow of nutrients back to our lawns and gardens. By using these materials to make compost and then applying the compost to our lawns and gardens, we can restore the natural cycle of nutrients and reduce the amount of fertilizer our yards need.

Many of the plant-growing problems that gardeners face are caused by suboptimal soil conditions. One sure way to solve a number

of these soil-based problems is to incorporate compost into the soil. Compost is a fantastic soil amendment for both sandy and clay soils. Adding compost to quick-draining sandy soils helps them retain water and nutrients. Gardeners who have poorly drained clay soils can use compost to loosen the soil, creating more air space, which in turn improves drainage and encourages root growth.

Additional benefits of amending with compost include increased earthworm activity, a higher population of beneficial microorganisms, and more desirable soil structure, all of which contribute to happier, healthier plants. To find out how you can start composting, ask your local Extension office for a copy of publication AG-467, *Composting: A Guide to Managing Organic Yard Wastes*. You can also download the publication at <http://www.ces.ncsu.edu/depts/hort/hil/pdf/ag-467.pdf>.

— Matt Stevens

Tips & Tasks

Deadheading

Deadheading is the practice of removing spent flowers or seed heads from flowering plants. While some plants are self-cleaning and shed old flowers quickly, many plants benefit from this maintenance chore. Deadheading can be beneficial in the following ways:

- Encourages the production of additional flowers
- Gives plants a neater appearance
- Eliminates an environment suitable for disease and insect pests
- Reduces the energy expended for seed production
- Conserves energy for new flower production or the subsequent season's growth

Although this technique is most frequently identified with annual and perennial flowers, it can be used on bulbs and flowering shrubs as well. To deadhead a plant, remove the old blossom by cutting back to the base of the flowerscape on bulbs, or prune back to a healthy leaf or side branch below the blossom of other plants.

Plants that respond well to deadheading include roses, salvias, cosmos, geraniums, purple coneflowers, black-eyed Susans, marigolds, and gaura. Remember to avoid deadheading if you wish to collect seed from a particular plant or if you want a plant to freely self-sow. For plants such as cleome that self-seed prolifically around the garden, deadheading can help reduce unwanted seedlings.

— Bob Filbrun



John Vining

Showstopper — 'Pocomoke' crape myrtle

"Truly amazing" are 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) 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

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