



Extension Gardener

NC STATE UNIVERSITY

NORTH CAROLINA COOPERATIVE EXTENSION

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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

Burke County Master Gardener Program

Like many counties across North Carolina, the Burke County Cooperative Extension center has a Master Gardener program that trains volunteers to provide horticultural education to home gardeners. The Burke County program has graduated more than 150 Master Gardeners during its 10-year existence. This year the program produced another 27 new volunteers to add to its numbers.

Extension Master Gardeners give their time throughout the year to help with Extension's horticulture program. Extension horticulture agents would be hard-pressed to do the high volume of work that each growing season generates without the help of these volunteers. Master Gardeners bring an endless variety of skills with them when they join the program, and their eagerness to learn new things and do good work is invaluable. Whether the community garden needs weeding, a school garden needs a little TLC, or the local county fair needs some extra hands, there are always plenty of Master Gardeners looking for something to keep them busy.

If you would like to learn more about the North Carolina Cooperative Extension Master Gardener program, you can contact your local Extension center for more information. Thank you, Extension Master Gardeners, for all that you do!

— Donna Teasley

Smart Gardening — Efficient watering

Water is necessary for plants to grow and survive. Some plants, such as cacti and yuccas, require very little water; but the plants that are adapted to our Southern landscapes need ample water to thrive. Most established plants need about 1 inch of water each week. In normal years, rainfall supplies a significant portion of the water that our plants need. During a drought or periods of minimal rainfall, however, we have to supply the water that our plants need to grow. Decreased water supplies have made it increasingly important to use water as efficiently as possible. You can increase your irrigation efficiency by making just a few easy changes to your watering habits.



- **Apply water to the soil rather than sprinkling the leaves.** Most plants absorb the majority of the water they need from the roots, so apply water to the soil where the plants can make the best use of it. Watering the foliage may make you feel good, but the plant is not likely to use much of that water. In addition, wet foliage can increase disease problems.

- **Water your plants when they need it, rather than on a schedule.** Invest in a rain gauge to determine how much additional water you need to apply to supplement the rain you get each week. Install rain monitors if you use an irrigation system so that your system doesn't run during or immediately following a rain event. Also, turn off the automatic timer, and operate the system manually so you can ensure that it only runs when needed.

- **Apply water slowly so it can soak into the soil and be absorbed by plant roots.** Use a soaker hose or drip irrigation when possible. These irrigation helpers are designed to apply water slowly right at the root zone, to optimize the amount of water that soaks in and gets used by plants. Sprinklers and garden hoses generally apply water too fast and in too much volume for it all to soak in, resulting in considerable waste as unabsorbed water runs off.

- **Water early in the day or in the evenings to reduce the amount of water lost from evaporation during the hottest part of the day.**

— Kelly Groves

Food Production — In search of the perfect tomato sandwich

Tomato season is just beginning in North Carolina. After starting with the greenhouse tomatoes, we rapidly progress to a great abundance of tomatoes of all types. One of the best ways to use a tomato is in a tomato sandwich. You might think making a tomato sandwich is a simple thing, but there are major decisions that must be made along the way. First, what type of bread will you use? Then you have to decide on a spread. Will it be mayonnaise or a mayonnaise substitute? For some folks, it has to be a specific brand of mayonnaise. Then there's the tomato itself—red, pink, or yellow?

The next decision is crucial: do you peel the tomato before you slice it, or not? I've tried it both ways. Unpeeled tomatoes make for a sandwich that is easier to handle, but peeling the tomato releases all that great flavor. It also results in a juicier sandwich that challenges

you to eat it before it falls apart. Salt and pepper are the final ingredients for this simple gourmet delight.

To get the most out of your fresh tomatoes, be sure to handle them properly in the kitchen. Rule number 1: do not refrigerate a tomato before you use it! A tomato that is showing even the least bit of color will continue to ripen if kept at room temperature. Placing your tomatoes in the refrigerator will have a negative effect on their taste. Naturally, if you cut a large tomato and only use part of it, you will have to refrigerate the remainder if you want to use it later.

Whether you grow them or buy them at your local farmers market, there's nothing like a fresh North Carolina tomato. Enjoy them this summer!

— Kevin Starr

Pest Alert — Kudzu bugs

The prolific kudzu bug is invading homes and gardens throughout the South.

Homes closest to soybean fields or kudzu patches are more likely to be invaded, because these are the kudzu bug's favorite foods. They've also been known to feed on wisteria and vetches. Kudzu bugs gravitate toward light-colored surfaces such as siding and fascia boards. Once there, they find their way into gaps around doors, windows, air conditioners, and water pipes, becoming nuisance pests inside homes.

It is difficult to control these pests with insecticides because the bugs move constantly, and most people lack the proper equipment to apply insecticides. Sealing gaps and openings can prevent the bugs from entering your house. If they still find their way

inside, simply vacuum them up and destroy the vacuum bag.

You might think there's nothing wrong with a bug that destroys kudzu, but the kudzu bug is wreaking havoc on soybean fields as well as kudzu. Surveys by the North Carolina State University Department of Entomology and the North Carolina Department of Agriculture and Consumer Services have confirmed the presence of kudzu bugs in at least 55 North Carolina counties. Infestation with this pest has been associated with a significant decrease in crop yields, so entomologists are keeping a close watch on it. In the meantime, arm yourself with a vacuum cleaner in case they decide to visit your home.

— Julie Flowers



Environmental Stewardship — Bees and pesticides

Bees are very sensitive to most pesticides, and they are particularly sensitive to insect killers, also known as insecticides. Most bee poisonings happen when pesticides are applied to blooming plants, although pesticides can harm bees in other circumstances, too. Here we'll discuss how you can prevent bees from being harmed by pesticides.

Honeybees fly 2 to 3 miles from their hive to find sources of nectar and pollen. Bees only fly out during the day when temperatures are warm enough, so you can decrease the potential for poisoning bees by applying pesticides when bees are not flying. Apply pesticides to your plants when air temperatures are below 55°F to 60°F and between 6 p.m. and 7 a.m. Early-evening application gives pesticides time to partially or totally break down during the night.

Bees must have water to cool the hive and feed the brood. Never contaminate standing water with pesticides or drain spray tank contents onto the ground, creating puddles.

Do not apply pesticides while crops or landscape plants are in bloom. Before treating a landscape with pesticides, check for the

presence of other blooming plants and weeds, which might attract bees. In orchards, pollen is gathered from the flowers of fruit trees during bloom. However, wildflowers and weeds on the orchard floor and within drift range of the pesticide spray can also serve as pollen sources. Insecticide should be applied only while target plants are in the bud stage or just after the petals have dropped.

If an insecticide formulation that is less toxic to bees is available, use it. Some examples of relatively nontoxic active ingredients that can be applied with little harm to bees include B.t. (*Bacillus thuringiensis*), azadirachtin (which is derived from neem oil), esfenvalerate, and pyrethrum. For any insecticide you apply, follow the instructions on the label.

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 is available at www.ces.ncsu.edu).

— Elizabeth Ayers

Tips & Tasks

Summer Chores

Butterflies are fluttering, birds are tweeting, vegetables are producing, and ornamentals are growing: summer is finally here! That means there is plenty for us gardeners to do, so let's get to it, especially in the cool of the morning and the late afternoon.

Lawns

- Remember to set your mower height no lower than 3 inches to prevent unwanted weed seed germination.
- Water 1 inch per week to prevent drought; alternatively, allow lawns to go dormant, and then water every three weeks in absence of rain.

Ornamentals

- Now is the time to shear conifers, such as leyland cypress, junipers, and arborvitae.
- Deadhead your perennial and annual flowers for prolonged bloom.
- Mulch around tree trunks to prevent weed and grass growth, which in turn prevents weedeater damage on those trees.

Edibles

- Side-dress earlier planted vegetables through July to enhance yields.
- Stake, cage, or trellis certain vegetables — such as tomatoes, pole beans, and cucumbers — when needed or when space is limited.

— Lenny Rogers



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