



Extension Gardener

NC STATE UNIVERSITY

NORTH CAROLINA COOPERATIVE EXTENSION

Summer 2010

Empowering gardeners. Providing garden solutions.

in this issue

MOUNTAIN NEWS

- Vermicomposting
- Columnar Basil
- So You Want to be a Master Gardener?
- Rain Gardens

STATE NEWS

- Hardy Tropicals—Go Bananas
- 'Blue Chip' Buddleja
- Make Your Landscape Water Wise
- The Produce Lady
- Scale Insects and Ground Pearls

Hardy Tropicals — Go Bananas

Last summer, JC Raulston Arboretum's Tim Alderton reintroduced me to the pink velvet banana, *Musa velutina*, and piqued my interest in plants that are typically thought of as tropical but are hardy in at least central North Carolina. The pink velvet banana has proven itself hardy as far north as USDA Hardiness Zone 7B. While banana foliage alone is enough to provide a tropical look in the garden, this plant has the added attraction of pink bananas. This isn't a very tall banana plant, typically reaching only about 3 to 6 feet tall.

If you prefer yellow to pink, you might consider the Chinese yellow banana, *Musella lasiocarpa*. The large yellow flowers of this banana have been described as "lotus-like" and resembling "giant golden artichokes." This species appears to be as hardy as *Musa velutina*.

Those who live in the coldest areas of North Carolina might consider the textile or Japanese fiber banana, *Musa basjoo*, which is believed to be the most cold-hardy banana. It has been reported to survive in areas colder than those found in our state. This species also produces the largest banana plant of the three and may grow to be 10 feet tall or more.

Although all of these bananas are relatively hardy, mulching around the "trunk" (pseu-

dostem) during cold weather is suggested while the plant is getting established. When growing *Musa basjoo* in Zones 6 and colder, mulch may be helpful even after establishment.

Besides colorful, cold-hardy bananas, another exciting discovery for me has been cold-tolerant *clumping* bamboo. I think most of us have seen bamboo growing in North Carolina, but many hardy bamboos are of the running type — the ones that people are usually more concerned with getting rid of than planting. Dr. Todd Lasseigne, Executive Director of Kernersville's Paul J. Ciener Botanical Garden, recently introduced me to *Fargesia rufa* 'Green Panda'. This cultivar grows to approximately 6 – 8 feet tall and is reported to withstand temperatures down to -15°F. There are other *Fargesia* species and cultivars as well, including *Fargesia robusta* 'Green Screen' and *Fargesia murieliae* 'New Umbrella'. With *Fargesia*, the concern in North Carolina is more likely to be heat than cold — they do not fare well in areas with hot, humid nights. Although information about exactly where the southern limit of production lies is hard to come by, I offer this caution to those in North Carolina's coastal plain: Avoid investing a lot of money on this bamboo without trying some for several years first.

— Mary Helen Ferguson

Musella lasiocarpa



Musa velutina



Musa basjoo



Upcoming Events

June 16 (10 AM – 12 NOON)

Hypertufa Workshop

Bullington Center, Hendersonville

- Linda Beach will lead a workshop on making natural looking hypertufa garden containers, and participants will make their own. Cost for materials.

• 828.698.6104

June 19 (8 AM – 5 PM)

WNC Daylily Club Show and Sale

The North Carolina Arboretum, Asheville

- Prize-winning daylilies will be on display and a wide variety of daylilies will be on sale. Daylily Club members will be available to answer questions.

June 21 – 24

Organic Gardening 101

ASU Teaching Farm, Valle Crucis

- Designed for beginning gardeners. Topics include garden planning, seed starting, companion planting, how to attract beneficial bugs, pest management, soil tests and amendments, composting and vermicomposting, growing herbs, landscape planning and edible landscaping.

• 828.264.3061

July 18 (3 – 4:30 PM)

Growing and Using Culinary Herbs

Bullington Center, Hendersonville

- Masters of the herb garden will whip up culinary creations using herbs for participants to taste and also give a tour of the Bullington herb garden with tips on how to grow culinary herbs.

• 828.698.6104

August 16 (2 – 3:30 PM)

Season Extenders

Swain County Extension Center, Bryson City

- Individuals will learn how cultivar selection, shade, multiple cropping, mulches, floating row covers, low tunnels, cold frames and more will extend their growing season.

• 828.488.3848

Smart Gardening — Vermicomposting

Many gardeners compost already but have never attempted vermicomposting (composting with worms). One of the benefits of vermicomposting is that it can be done year-round, inside or out. Worms don't take up much space, so a small container will be sufficient. A good way to gauge the size of your worm bin is to weigh your kitchen food waste for a week. Provide 1 square foot of surface area per pound of waste. Worm bins can be shallow (8 – 12 inches) because the worms feed on the top layers of bedding. Plastic storage containers are handy worm boxes, as are wooden boxes. In cold weather, worm bins can be kept in laundry rooms, under the kitchen sink or in a closet. Drill some holes in the bottom of the bin, and place a tray underneath to catch any excess liquid. Worms need the dark, so a cover is necessary. A loose burlap sack or a piece of dark plastic works well.

Worms need bedding to help retain moisture. Shredded corrugated cardboard, shredded paper or newsprint, or peat moss is acceptable bedding. Commercial worm bedding is also

available. A worm bin needs to be filled two-thirds full with bedding. Cover the bedding with water, and allow it to stand for 24 hours. Wring out the excess water, place the bedding in the bin, and fluff.

The worms to use in your vermicomposting project are redworms (*Eisenia foetida*), also called red wigglers, manure worms, red hybrid or tiger worms. What do you feed the worms? Most kitchen waste is acceptable, but be sure and add some gritty foods, such as coffee grounds, to aid in digestion. Start slowly, and wait for worms to become established; then slowly add more scraps. In 3 to 4 months the bin will be filled with rich, black compost.

You will need to remove the castings occasionally. Simply shine a light into the bin. This makes the worms move deeper. Use a sieve, and take out a layer of castings. Shine the light again and repeat the process. Add new bedding when you are finished.

If you would like to learn more about vermicomposting, contact your county Cooperative Extension center.

— Donna Teasley

Food Production — Columnar basil

Dozens of basil varieties exist with different flavors, shapes and foliage colors. Columnar basil (*Ocimum xcitriodorum*) is often called Greek basil or "Aussie Sweetie." It has some unique characteristics that make it easy to grow and maintain.

The flower heads on most large-leafed basil varieties need to be picked almost every day, or the plant must be cut back a couple of times during the season to remove flower heads. This maintains the vigor of each plant, and maximizes flavor. Columnar basil does not flower, so this is unnecessary.

Large-leafed basil varieties need to be pinched when young to encourage branching. Columnar basil is base branching, so pinching is not required. Columnar basil also has a unique shape, forming a column of foliage 18 inches in diameter and 3 feet high. Planting

12 to 18 inches apart results in an interesting annual hedge that can be sheared into any desired shape. Because it has a slight cinnamon flavor, columnar basil is probably not the best basil for pestos, but is still excellent in other applications where a strong basil flavor is needed.

Columnar basil does not flower, so no seeds are produced. But propagation is easy. Take cuttings from new growth at the tips of stems, and root them in a soilless seed-starting mix using rooting hormone. Or root cuttings in a glass of water, then move to pots.

Within 6 weeks you'll be harvesting basil for use in the kitchen. One plant outdoors will produce several pounds of fragrant leaves for drying or freezing.

— Jim Janke

Photo © www.pantrygardenherbs.com



Garden Spot — *So you want to be a Master Gardener?*

You've heard them on the hotline, at farmers markets and other local events, answering gardening and landscaping questions. You've seen the demonstration and educational gardens they maintain across the state. You've participated in workshops or special events they've hosted. Perhaps your child or grandchild is involved in a youth gardening program they manage. And you may have thought, "I would like to be involved in those projects. How do I become a Master Gardener?"

The Extension Master Gardener program started in 1972 in Washington State, when a local Cooperative Extension agent realized that a group of well-trained volunteers could be of considerable assistance in promoting best gardening practices and answering homeowner's



gardening questions. Since then, the program has spread to more than 30 states as well as other countries.

In North Carolina, the programs operate at the county level under the supervision of the county Extension center. Interested individuals must apply and, once selected, complete 4 to 6 months of instruction on a variety of horticultural subjects. Upon completing the course and an internship, graduates are certified as Extension Master Gardener

Volunteers. Maintaining certification requires volunteering a set number of hours of service and continuing education each year.

For more information on the NC program, visit these sites: <http://www.ces.ncsu.edu/depts/hort/consumer/masgar/> and www.ncmastergardeners.org

Environmental Stewardship — *Rain gardens*

What are rain gardens anyway? They are shallow depressions in the land that capture rainwater so it can slowly seep into the ground—*slowly* being the key word.

When rainfall occurs, it infiltrates soil until the soil becomes saturated. Then the excess water flows across surfaces as runoff. Rainfall slowly infiltrates the ground in forested and natural areas to replenish our aquifers and water tables. Runoff occurs in these areas after the soil becomes saturated to capacity. But if rainfall hits impervious surfaces, such as driveways, rooftops, parking lots or roads, the water runs off these surfaces very quickly. This runoff is stormwater. Stormwater can cause erosion and pollute our streams. When it moves across impervious surfaces, it picks up trash, pesticides, oils, fertilizers, and more. The plants and soil in a rain garden work together to filter and clean the stormwater, trap the pollutants, and let clean water back into the ground. The pollutants are broken down in the sunlight.

The plants that go into a rain garden should be native plants. Native plants will help you successfully establish your rain garden. Natives require less maintenance because they have adapted to the local environment, including diseases and insects.

The next time it rains, go out in your yard and see where water collects and travels from your property. Rain gardens are located between the runoff source (roofs, roads and other hard surfaces) and the runoff endpoint (streams and storm drains). The size of your rain garden can be calculated by using a formula found on this website: <http://www.bae.ncsu.edu/topic/raingarden/index.htm>.

A rain garden produces many benefits beyond improving water quality and reducing flooding. A rain garden can enhance your property, and the native plants provide habitat for beneficial insects and wildlife.

—Elizabeth Ayers

Tips & Tasks

Lawns

- Mow grass regularly. Never cut off more than a third of the grass blades' height at one time.
- Apply a pesticide containing imidacloprid in June and July for next year's grub prevention. Always read the label before applying any pesticide.
- Allow clippings to fall on the lawn rather than bagging them. This adds nitrogen and organic matter to the soil.

Ornamentals

- Take semi-hardwood cuttings of azalea, holly, camellia and rhododendron in late June. Make cuts where the year's new growth is starting to harden.
- Prune bleeder trees, such as maple, dogwood, birch and elm, in July.
- If dry weather persists, water landscape plants as needed.

Edibles

- Watch for pests on vegetable plants. Flea beetles, whiteflies and Colorado potato beetle are out. Spray for squash vine borer in early June and again in early August.
- Fall vegetable transplants, such as cabbage, broccoli, Brussels sprouts and greens, should go in the ground between mid-July and mid-August.
- Mulch tomato plants early to help prevent early blight. A 3-year rotation plan will also help to suppress early blight.

—Donna Teasley



Showstopper — 'Blue Chip' buddleja

Few deciduous plants are as colorful in the summer garden as the butterfly bush. Thanks to the plant breeding efforts of Dr. Dennis Werner at NC State University, a hardy miniature buddleja called Lo & Behold™ 'Blue Chip' is available for Carolina gardens. 'Blue Chip' has a symmetrical, compact spreading habit with violet-blue flowers. The blossoms are fragrant and possess malformed anthers that produce little to no pollen. Due to the tiny number of seed heads formed, 'Blue Chip' flowers prolifically throughout the summer and fall in full sun and decent soil drainage. Because of its low (2 to 3 feet tall), spreading habit, Lo & Behold™ 'Blue Chip' is perfect for the front of landscape beds or in mass plantings. As with most buddlejas, 'Blue Chip' will attract butterflies in abundance. It is deer-resistant, drought-tolerant and compact enough to grow in containers.

—John Vining

Sustainability

Make your landscape water wise

Water-wise landscapes need less water year-round, making them less reliant on irrigation. Plants vary greatly in the amount of water they need to thrive. Some can withstand long periods of low soil moisture. These include junipers, hollies, Indian hawthorn, lantana, yucca, and muhly grass. Others, such as azaleas, roses, dogwoods, impatiens, hydrangeas, and Japanese maples, need more constant soil moisture to grow well. Grouping plants in beds based on water requirements makes watering more efficient and practical. Other water-wise landscaping strategies include mulching to conserve moisture, preparing soils so they retain moisture, and using efficient irrigation practices. To find out more about water-wise landscaping and drought-tolerant plants for your area, contact your county Extension center.

—Charlotte Glen

The Produce Lady

Selecting locally grown fruits and vegetables is as easy as stopping at a farmers market or roadside stand. Next time you are looking for easy tips and recipes, be sure to visit www.theproducelady.org for all the information you need. The Produce Lady is Brenda Sutton, the Cooperative Extension director in Rockingham County. Brenda grew up on a farm in eastern Wake County and developed a love for good, home-grown food as a child. Quality local foods are her passion, and she loves sharing healthy, nutritious ways to select, store, prepare and preserve foods from the local farmers market. The Produce Lady effort consists of a series of videos on North Carolina fruits and vegetables and other local food products.

You may also enjoy her updated Web site, bi-weekly blog posts, and entertaining YouTube videos.

—Diane Turner

Pest Alert — Scale insects and ground pearls

North Carolina has several scale species that can affect many ornamental and turfgrass specimens. Nandina and pittosporum varieties are common hosts for the *cottony cushion* scale. The females are approximately 3/16-inch long and have a rusty red appearance, black legs, and antennae. They have piercing and sucking mouthparts and can often be seen with a protective wax coating. The males are approximately 1/8-inch long with a reddish-purple appearance and a set of wings.

Euonymus scale can be found throughout North Carolina. Females feed by sucking out fluids from foliage. Females are approximately 1/16-inch long and dark-colored with an armor or protective cover they never leave. The males are white and will leave their armor casing to mate.

Indian wax scale can be found from Florida to Maryland on a variety of hosts, including hemlocks, azaleas, camellias and hollies. They are brownish-purple and typically found with a sticky, white, waxy coating. *Tea scale* has been found on the undersides of leaves on a variety of plants, including camellias and hollies. The adult females have a brown armor or protective coating.

Even though *ground pearls* do not affect ornamental plants, they are a problem in warm-season turfgrasses. They attach themselves to the roots of grasses and extract fluids. Ground pearls look like tiny pearls.

For more information, visit NCSU Entomology Insect Notes: <http://insects.ncsu.edu/>

—Della King



www.ces.ncsu.edu

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 **Anne Edwards, Charlotte Glenn**
Piedmont **Carl Matyac, Mark Blevins**
Mountains **Donna Teasley, Dianne Turner**
Production Editor **Barbara Scott**
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."

E10 52864—6/10

<http://extensiongardener.ncsu.edu>



Euonymus scale infestation.

(Photo courtesy E.L. Manigault, Bugwood.org)