



Extension Gardener

NC STATE UNIVERSITY

NORTH CAROLINA COOPERATIVE EXTENSION

Summer 2010

Empowering gardeners. Providing garden solutions.

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

in this issue

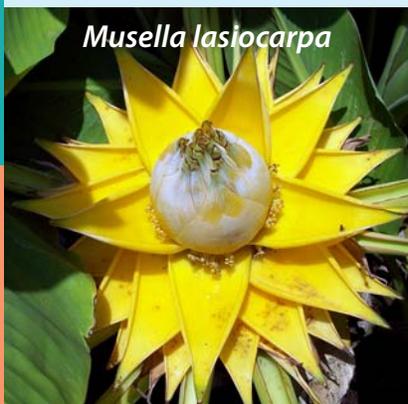
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Musella lasiocarpa



Musa velutina



Musa basjoo





Smart Gardening — Rain barrels and cisterns

Using a rain barrel or cistern to collect rainwater can lower your water bill, help your plants and protect the environment by reducing runoff. What's the difference between a rain barrel and a cistern? The size. Rain barrels are smaller and installed above-grade, whereas cisterns are larger and can be installed above- or below-grade. Rain barrels and cisterns can be purchased from many sources. You can also make your own. A quick Web search pulls up many sites with instructions and videos.

Be sure to use a food-grade quality recycled barrel (55 gallons is a common size). Install a faucet at the bottom and an overflow pipe near the top. A screened opening will allow the water to enter the barrel from the downspout. Elevate the rain barrel slightly for easy access to the faucet and improved water flow. Make sure the base is level and stable. A full barrel is very heavy. You may want to tether the barrel in place so it can't tip over.

Sizing your system is important. For every 100 square feet of roof area, a 1-inch rainfall will yield about 62 gallons of water. A single 55-

gallon barrel can be filled quite rapidly. Several barrels can be linked together if you want to collect larger volumes of water.

If you decide on a cistern, it can be placed totally or partly in the ground. A pump (hand, solar or electric) will be needed to use the water. In areas with a high water table, groundwater may cause an empty tank to pop out of the ground. When purchasing a tank for inground use, make sure it is built for that purpose. Inground tanks are stronger and have extra ribbing support to keep them from being crushed. New, unused 1,000-gallon concrete septic tanks work well as cisterns.

If you don't have gutters, you can still collect rainwater from your roof. A French drain can be placed in the ground along your roof's drip line. The pipe from the drain could lead to an inground cistern. No gutters are needed, plus the water is filtered prior to entering the tank. Check with your termite control company about cistern or trench placement so that your contract is not voided.

— Diana Rashash

Upcoming Events

May 17

Alive at 5 (5 PM)

1806 SW Goldsboro Street, Wilson

- Guided tour of the Wilson Botanical Garden. Featured garden: Arboretum (magnolias in bloom).

Plant Sale (6 PM)

- Presentation on Bamboo Artwork, Dr. Will Hooker, N.C. State University.
- 252.237.0113

May 20 (10 AM – 2 PM)

Pesticide Collection Day

Wilson Agricultural Center, 1806 SW Goldsboro Street

- 252.237.0113

June 21 (5 PM)

July 19 (5 PM)

August 16 (5 PM)

Alive at 5

1806 SW Goldsboro Street, Wilson

- Guided tour of the Wilson Botanical Garden
- 252.237.0113

Food Production — Tomato problems

Bacterial, fungal and viral diseases take a toll on tomatoes and are difficult to control. Other problems, however, are caused not by disease organisms but by cultural practices you can control.

Blossom-end rot is a common tomato disorder. It is caused by calcium deficiency and results in decaying, leathery brown areas on the tomato's blossom end. One way to prevent blossom-end rot is to add calcium to the soil several months before planting, *if the soil has tested low in calcium* (1 to 2 pounds of gypsum per 100 square feet). Foliar sprays may help when symptoms first appear. The sprays must be used weekly for an extended period. Follow label directions carefully. Perhaps the most effective way to prevent blossom-end rot is to water tomatoes consistently every few days so the soil doesn't dry out. Mulch helps to keep the soil moist between watering. Root damage caused by nematodes or by hoeing around the plants will reduce a plant's

ability to take up water and dissolved calcium. This could promote blossom-end rot in gardens that are watered properly.

Cracking appears when a plant has periods of slow growth followed quickly by periods of rapid growth. Several dry days followed by heavy rains can cause these conditions. Consistent watering is the best way to prevent cracking.

Catfacing is an enlarged hole or puckering at the blossom end. It may be caused by cold weather during growth but is made worse by pruning or high nitrogen. Planting at the proper time and avoiding too much nitrogen fertilizer will help to prevent catfacing.

Many home gardens are near turf where weeds are controlled using chemicals. Lawn chemicals can drift to the garden, even in very light breezes. Symptoms that look like diseases are often the result. Use extreme caution when applying lawn chemicals near a vegetable garden.

— Shawn Banks

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



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

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

Environmental Stewardship — *Lawn watering Q&As*

Do I need to water my lawn every day? No. Water should be applied only when lawns show signs of moisture stress. A dark bluish-gray color; footprints that remain some time after walking; and wilted, folded or curled leaves indicate that it is time to water. Improper irrigation of lawns results in wasted water, added cost and unhealthy plants.

What time of day is best to water my lawn? Water in the early morning if possible. This is the preferred time to water because it reduces the risk of disease, water loss through evaporation and incorrect water distribution.

How much water should I give my lawn? Water established lawns to a depth of 6 to 8 inches to encourage deep rooting. For sandy soils, applying 0.5 inch of water every third day is usually sufficient. Use a rain gauge to determine how much water is being delivered in a certain period

of time. Adjust automatic irrigation systems to supplement rainfall so that the lawn is not overwatered.

My lawn is turning brown. Is it dead? No. Brown, withered leaves are normal signs of dormancy; don't be alarmed. Turf grasses are able to withstand prolonged periods of drought. In the absence of rain, water dormant lawns every 3 weeks to prevent turf loss. Avoid over-fertilizing during this time, and raise the mowing height to reduce moisture stress.

What about water and my vegetable garden? Keep the soil moist, but not saturated. Extremes in water may lead to disorders such as blossom-end rot in tomatoes and squash. To make the most efficient use of your water and to avoid encouraging diseases, water the plant at the soil level rather than over the top of the leaves.

— Katy Shook

Tips & Tasks

Summer Chores

- Water according to plant needs. Vegetables and newly planted areas may need frequent watering, while lawns and established plants may need none.
- It's best to mulch in spring, but late is better than never. Mulching conserves moisture and reduces weeds, therefore reducing the need for pesticides.
- Keep warm-season lawns mowed to 1 – 2 inches. Shorter lawns need more water.
- Plant vegetables to extend the season. Beans, beets, Brussels sprouts and others can be planted in July.
- Pick fruit and vegetables as they ripen. If you have too many, share with family, friends or a local food bank.
- Stake those tomatoes. Staked tomatoes tend to have less rot.
- Make the most of flowers. Cut and bring them inside to enjoy. Remove spent flowers on butterfly bushes, roses and perennials, such as shasta daisy, black-eyed Susan, coneflower, and salvia, to extend the bloom period. This practice keeps the garden tidy.
- Weed before weeds set seed.
- Watch for powdery mildew and other fungal diseases on landscape plants. Treat affected plants before leaf drop in the fall. The spores overwinter on infected plant parts and debris. Environmentally friendly controls include ultrafine spray oils and neem oil extract.

—Cyndi Lauderdale



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 $\frac{3}{16}$ -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 $\frac{1}{8}$ -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 $\frac{1}{16}$ -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**
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Production Editor **Barbara Scott**
Designer **Karl Larson**

Photos courtesy JC Raulston Arboretum unless otherwise noted.

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E10 52864—6/10

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Euonymus scale infestation.

(Photo courtesy E.L. Mani-gault, Bugwood.org)