Extension Gardener

NC STATE UNIVERSITY NORTH CAROLINA COOPERATIVE EXTENSION Fall 2010

Empowering gardeners. Providing garden solutions.

in this issue

Gorgeous Grasses for Garden Texture

Ornamental grasses are perfect additions to any planting. Their graceful, airy form and linear texture contrast with shrubs and perennials. In addition to being beautiful, most grasses are tough, drought-tolerant and deer-resistant, and have few insect or disease problems. Ornamental grasses are becoming more common in NC landscapes. Easy-to-grow varieties are available from most garden centers.

Like turf grasses, ornamental grasses can be divided into warm- and cool-season varieties, based on the season in which they actively grow. Gardeners in eastern North Carolina should stick with warm-season varieties, while those in the piedmont and mountains can grow both types.

Two of the most garden-worthy warm-season growers are native to the Southeast. The drought-tolerant pink muhly grass (*Muhlenbergia capillaris*) has masses of delicate, airy, vibrant pink flower panicles in fall. (See back page.) This clump-forming grass is hardy to Zone 6, grows to 3 feet tall and prefers well-drained sunny sites. For a different twist, seek out the variety 'White Cloud', which produces ivory-white flower panicles instead of the more common pink.

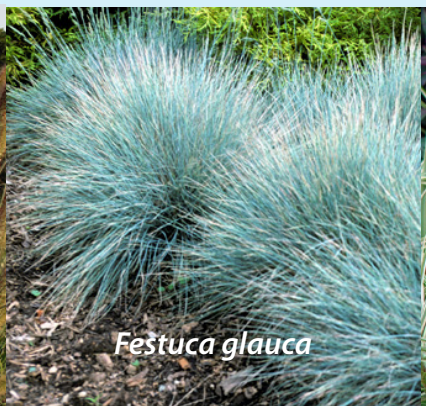
Another great native warm-season grower is switchgrass, aka panic grass (*Panicum virgatum*). It grows in most soils, including sand and clay, but needs full sun to perform best. Several varieties are available, all of which produce airy sprays of buff-colored flowers and seedpods in late summer and fall. 'Cloud Nine' is a colossal, sturdy, upright variety that easily reaches 8 feet tall. 'Prairie Fire' is an excellent smaller selection, growing 3 to 4 feet tall, with lovely burgundy-splashed foliage. A personal favorite is 'Northwind', an extremely vertical, 5-foot-tall olive-green selection. Switchgrass varieties form slowly spreading clumps that can be divided every 3 to 4 years.

Other popular warm-season growers include fountain grass, *Pennisetum alopecuroides*. There are many varieties of this sun-loving summer-blooming grass, most of which grow to 3 feet or less. Maiden grass, *Miscanthus sinensis*, has long been a staple in the ornamental grass trade, but should be used with care as it has become invasive in western North Carolina.

Popular cool-season growers include blue fescue (*Festuca glauca*), a small clumping grass with intense blue foliage, and *Calamagrostis* 'Kark Foerster', which produces strongly upright spikes of pink blooms in summer that fade to tan in fall. Gardeners with wet soils should seek out the many varieties of ornamental sedges (*Carex* species) to add a grassy texture to pond edges and low areas. To find out more about these and many other ornamental grasses, visit the plant profiles on the NC Cooperative Extension Urban Horticulture website: www.ncstate-plants.net

—Charlotte Glen

Pennisetum alopecuroides



Festuca glauca

Carex phyllocephala

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Upcoming Events

September 26 (1 – 4 PM)

Wilson Botanical Gardens Open House

1806 SW Goldsboro Street, Wilson

- Plant sale, garden tours, refreshments. 252.237.0113

October 7, November 4 (10 AM)

Pitt County Arboretum Guided Walking Tour

Pitt County Agricultural Center, Greenville.

- 252.902.1709

October 18 (beginning at 5 PM)

Wilson Botanical Gardens Alive at 5: Hot Rods and Harleys

1806 SW Goldsboro Street, Wilson

- Bring your classic muscle cars or motorcycles. Includes a 30-minute guided tour of the garden; then view the car show. Plant sale, refreshments, door prizes. 252.237.0113

October 23 (10 AM – 12 NOON)

Sampson County Master Gardener Fall Horticulture Seminar

Sampson County Livestock Facility, 93 Agriculture Place, Clinton

- Free; registration required. 910.592.7161

October 23 (10 AM)

"Camellias for NC" Seminar and Garden Tour

Craven County Agriculture Building, New Bern

- Sponsored by Twin Rivers Camellia Club and Craven County Extension Center. 252.636.0064 or 252.514.6609

November 13 (9 AM – 1 PM)

Wayne County Master Gardener Volunteer Association Holiday Workshop

Wayne County Extension Center, Goldsboro

- Demonstrations of wreath making, handmade garlands and holiday eco-decorations. Free; open to the public. 919.731.1525

Smart Gardening — *Grow your own mulch*

Mulching has many benefits, but it can be expensive. Transportation is costly, and application is hard work. Even free mulch picked up on roadsides or given away has transportation costs. Free mulch costs communities fuel, equipment and labor to haul yard waste from gardens, chip it and haul it back to gardens. Vegetation can be managed in the garden to reduce these costs.

Using tree leaves is a way of reducing mulching labor. Trees naturally self-mulch. To take advantage of this and simulate nature, trees can be grouped together. Leaves can be left in place to provide mulch or shredded with a mulching mower and used in other areas.

There are endless plant choices for providing mulch. Large and fast-growing herbaceous annuals, perennials and vines make good sources of mulch. Aggressive plants can be grown and cut back to provide mulch, reduce vigor, and prevent seed production.

Some of the most commonly referred to plants you can grow to provide mulch are comfrey, cardoon, Chinese rhubarb, elephant ear, hardy banana, lamb's ear, cup plant, Joe Pye weed, swamp sunflower, iris, hosta, ornamental grasses, and mullein. They all can be chopped up for mulch or layered for sheet mulching or path mulching. Plants that grow to over 6 feet tall, such as cup plant, Joe Pye weed and swamp sunflower, can be cut back during early summer to provide less woody mulch, prevent flopping, and reduce flowering height in fall.

Using garden plants in the garden as sources of organic mulch that will break down and improve the soil saves on fuel, equipment and labor. The choices are unlimited, and creative gardeners can use almost any large or fast-growing plant as a source of mulch. As pruning and cleanup of the garden is done, chop up the clippings of most any herbaceous annual or perennial plant to create mulch that will build the soil in our gardens. If chopping is too much trouble, use ornamental grasses or other foliage as is in layers for mulching paths and outdoor storage and work areas. Growing your own mulch is fun, easy, works with nature and saves money. Give it a try.

—Danny Lauderdale

Food Production — *Leafy greens and crucifers*

Leafy greens and crucifers include a wide spectrum of plants – from arugula, collards, broccoli, mustard and turnip greens, to spinach, Swiss chard, beet greens and lettuce. All of these greens are cool-season crops that grow best between 45 and 65°F. Most prosper in eastern North Carolina when planted in August and September for fall harvest.

Among leafy greens, lettuce is one of the easiest to produce. There are many varieties to choose from. Loose leaf lettuces mature quickly and are the easiest to grow, while iceberg lettuce varieties are more difficult because of the long growing season they require and their tendency to go to seed quickly. Romaine is more heat-tolerant than iceberg lettuce and has a sweeter taste. Butterhead types, which have loose heads, are easier to produce than varieties with tight, firm heads. Plant lettuce plants or seeds in succession every couple of weeks through late September to enjoy harvests for several weeks.

Transplants will produce a quicker crop of vegetables than direct seeding. This shorter production time also means transplants have less exposure to pests and environmental stresses. Broccoli and cauliflower do best when started from transplants. Arugula, turnip and mustard greens, and spinach are typically grown from seed. Seed should be sown in a well-prepared seedbed to allow for good soil contact

Greens can be harvested as whole plants or individual leaves. Turnip, mustard, collards and kale are harvested when the stalks are young and tender. Spinach is harvestable as soon as the leaves are of edible size. In the garden, leafy greens are susceptible to several foliar diseases, including mildews and fungal leaf spots. Watch out for diamondback moths, various worms, aphids, flea beetles and harlequin bugs, and contact your county Extension center for pest control options and recommended varieties.

—Peg Godwin

Garden Spot — *NC Aquarium nature trails*

Hidden in plain sight at our state aquariums are public hiking trails, native plant paths and specialized gardens. One is the Theodore Roosevelt Nature Trail, free to the public at the NC Aquarium at Pine Knoll Shores. The combination of a maritime forest, with views of small marsh coves and vast saltwater marshes, is magical. This aquarium has a second trail, the Alice Hoffman Nature Trail, off the marsh boardwalk. The Hoffman Trail has a floating pontoon bridge and is accessible only with paid admission to the aquarium.

The NC Aquarium at Fort Fisher also offers two trail options: a DOT bike trail through the maritime forest and thicket, and the Basin Trail, a hiking trail that begins in the maritime thicket, moves to the ecosystem behind the dunes and then crosses the salt marsh to a deck overlooking a shallow open-water bay. This trail is in the Fort Fisher State Recreational Area, immediately adjacent to the Aquarium. You can reach the trailhead via a short 5-minute walk from the Aquarium parking lot.

Because of recent construction at the NC Aquarium on Roanoke Island, there is not a continuous nature trail. At all three aquariums you can view gardens, such as a wildflower meadow, a monarch butterfly way station, native plant rain gardens and carnivorous plant gardens: http://www.ncaquariums.com/

Bring your mosquito repellant if you hike these trails in the warmer months.

—Anne Edwards

Above: A vista on the Roosevelt Nature Trail
(photo courtesy of NC Aquariums)

Environmental Stewardship — *Integrated weed management*

Weeds compete with desirable plants for water, nutrients, sunlight and space. We manage weeds to prevent reduced yields of fruits and vegetables as well as to enhance the performance and appearance of plants and turf.

Integrated pest management (IPM) is the coordinated use of pest and environmental information to develop control methods that are economically, environmentally and socially sound. IPM emphasizes prevention over remediation and advocates using multiple control strategies to achieve long-term pest management. The first step in developing a weed IPM program is accurate identification of the weed. Knowing a weed's biology and life cycle will allow you to target its most vulnerable stage of growth and help you determine how to control it using cultural, mechanical or chemical methods, or a combination of these.

Cultural controls are modifications to gardening activities that suppress pest populations. Examples include crop rotation, water and nutrient management for better crop health, cleaning soil from tools between areas and using cover crops. Mechanical controls consist of hoeing, rototilling, hand-pulling and mulching to disrupt or suppress weed populations. These methods effectively control most annual weeds, though it often takes repeated cultivation to kill perennial weeds.

Herbicides can be used to supplement these methods. There is no single herbicide that can be used to control weeds in all situations. Herbicides vary in the weeds they control. Selective herbicides control either grasses or broadleaf weeds, but not both. Nonselective herbicides control all types of plants. Contact your county Extension center for help with weed identification and control. Keep in mind that it isn't realistic to have zero tolerance for pests, so be willing to accept some imperfection when setting your weed control expectations.

—Mike Wilder

Tips & Tasks

Fall Chores

- Fall is the time to fertilize established tall fescue lawns. Rely on soil test recommendations, or use this general recommendation: 10 lb of 10-10-10 per 1,000 square feet of lawn. Do not fertilize warm-season lawns, such as centipede, zoysia or bermuda, in the fall.
- Fall is the ideal time for planting. Cooler weather helps root establishment. Think about adding color to your fall landscape with ginkgo, red maple, Japanese maple, crape myrtle, *Sasanqua* camellia, burning bush (*Euonymus alata*) or rabbiteye blueberries.
- Plant spring-blooming bulbs in late October and November. Use a bulb fertilizer at the rate of 1 rounded teaspoon per square foot, incorporated into the rooting area.
- Control winter weeds with a pre-emergent herbicide applied to lawn and landscape from September 1 – 15.
- Do not fertilize with nitrogen or prune as day length shortens and temperatures begin cooling.
- Thoroughly clean plant debris out of the garden to help prevent next year's insect and disease problems.
- Bring houseplants indoors when temperatures dip below 50°F. Give them a bath in soapy water or spray with insecticidal soap.
- Mulch shrubs, trees, perennials and herbs after the first killing frost for winter protection.

—Cyndi Lauderdale

Extension Gardener

Around the State

Showstopper — *Pink muhly grass*

Pink muhly grass (*Muhlenbergia capillaris*) is an absolutely showstopping source of late-season color. As an ornamental grass, it is a great compliment to those landscape beds with fading summer annuals. The delicate plumes of flower panicles create a striking pink haze above the foliage. This perennial is attractive individually but really makes a big show when used in mass. Pink muhly grass can reach a height of 4 feet and a width of 3 feet. Give it plenty of sunshine, and transplant into soil that is well-drained.

A North American native, pink muhly grass sounds too good to be true. It's as reliable as promised. Long-lived with little to no insect or disease pests, this ornamental grass is perfect for the low-maintenance garden. It tolerates heat, humidity, drought and poor soil, and does best in Zones 6 to 9.

—John Vining

Sustainability

Preventing Garden Diseases

One important and overlooked gardening chore is cleaning up at the end of the growing season. The amount of cleanup done in the fall will directly affect the success of next year's crops. Every weed removed this fall means fewer weeds next spring. Get any old crops out of the garden space before winter sets in. Dead plants and leftover vegetables are perfect over-wintering places for diseases and insects. Slugs and bugs can spend the winter in plants and weeds, and disease organisms such as early and late blight can also survive the winter in discarded vegetables, stems and leaves. Place leftover plants that have had pest or disease problems in trash bags or burn them to prevent spread. Never put infested plants or perennial weeds in the compost pile.

—Donna Teasley

Incredible Edibles — *Fruit trees*

When you choose a landscape tree, you consider whether it is well-adapted to your local environment and if it will fit your space when mature. You might think about whether the tree has showy flowers and will attract beneficial honeybees to your landscape. Use the same criteria to choose a fruit tree.

Look first for fruit that grows well in your region. Not every part of the state can grow every fruit or every variety of a particular fruit. Check with your county agent for specific varieties best suited to your location. Choose full size, semi-dwarf or dwarf rootstocks, depending on how much space you have.

To have a healthy fruit harvest, you also may need some pest management skills and strategies. Choose tender fruit, such as peaches, only if you are ready and able to devote a good bit of time and energy to pest control.

—Anne Edwards

Pest Alert — *Florida betony*

Florida betony is an aggressive weed that is becoming more common across the state. Once introduced, it can spread rapidly and be difficult to control.

This perennial weed is most noticeable during late summer to early fall and in early spring. It typically remains green through the winter. Florida betony has square stems with leaves that are opposite and lance-shaped with toothed edges. The best way to identify it is to dig it up. The white, segmented tubers resemble a rattlesnake's rattle, hence the common name "rattlesnake weed." The tubers contribute to the weed's invasiveness and rapid spread.

When you see Florida betony emerge, repeatedly hoe or cut out the top growth to starve the weed's root system. For lawns, apply a selective herbicide labeled to control Florida betony in the fall to emerged Florida betony. Follow with a second application in midwinter or early spring. Suppress it in landscape beds or around trees and shrubs by applying a 2- to 3-inch layer of mulch. To provide an additional barrier, use a landscape fabric beneath the mulch layer. Controlling Florida betony requires persistence. It can take several years to get rid of Florida betony in heavily infested areas; repeated herbicide applications will be necessary for a few years.

—Della King

Florida betony
(Stachys floridana)
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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**

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