

FALL 2016

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Extension Gardener provides timely, research-based horticultural information. We publish four issues per year. Send comments about *Extension Gardener* to:

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Spooktacular Plants

Fall is known for nights full of fright, but don't worry. These plants won't bite! Try incorporating these ghoulish plants into your landscape and provide frightful fun for kids of all ages.

Spider flower, *Cleome hasslerana*, is a low-maintenance annual that performs best in sun to partial shade and moist soil. Purple and white blooms are produced summer to frost with 1-inch long petals and extended stamens that curve to give the plant its spiderlike resemblance. Plants reach a height of 3 to 4 feet with a 2-foot width, making them suited for the back of the garden. They also make great cut flowers.

Eyeball plant, *Spilanthes oleracea*, is sure to be a conversation starter in the garden. The globular, golden-yellow flowers are centered with a red "eye." A low, spreading growth habit occurs when eyeball is planted in full sun to light shade. Blooms are produced in the spring along the ends of extended stems that are surrounded by olive-colored leaves. This annual is thought to have been used in folk medicine as a toothache remedy, but it is best used today as a groundcover or in containers.

Ghost fern, *Athyrium* sp. 'Ghost,' derives its name from the silvery fronds of foliage that are produced through the entire growing season. The clumping fronds will reach an average height and width of 2 to 3 feet with little maintenance and care. As a woodland plant, however, ghost fern prefers moist soil and part to full shade.

Bloodtwig dogwood, *Cornus sanguinea*, drips with color throughout the year. Creamy-white flowers are produced in late spring, followed by purple fruit and red fall foliage. The color contin-



Eyeball plant provokes conversation in the garden. ©Thomas Knox, creativecommons.org, CC-BY-NC-SA-2.0.



Bloodtwig dogwood displays creamy flowers in late spring and blood-red stems in winter. Top: @Je Wyer, CC-BY-NC-ND-4.0. Bottom: @Bathyporeiai, CC-BY-NC-ND-4.0.

ues through winter as stems fade from yellow to red. Use in mass plantings for impact. This medium to large shrub prefers sun to part shade and well-drained soil.

Devil's walking stick, *Aralia spinosa*, will provide year-round fright with its stiff, thorny branches that reach an average height of 15 to 20 feet in the landscape. This deciduous tree species will tolerate a wide range of soil conditions and sun exposure, and its leaves will produce yellow to red-orange fall color. In summer the tree is highlighted by clustered, creamy-white flowers that are followed by purple to black fruits. Besides attracting onlookers, the plant also attracts bees, butterflies, and birds.

Skullcap, *Scutellaria incana*, is a native perennial that prefers moist soil and sun to light shade. Stalked, purple to blue blooms are produced summer to fall against small leaves covered with silvery hair. The plant will reach an average height of 2 to 4 feet in the garden. You can enjoy teasing garden visitors with its frightful name while they enjoy its delicate blooms. —Katy Shook

Extension Showcase

Nash County Arboretum Educates the Public on Smart Gardening

The Nash County Arboretum is a public demonstration garden at the Nash County Agriculture Center in Nashville, designed and maintained by the Nash County Extension Master Gardener Volunteers.

Since 2004, the Nash County Arboretum has been a place of education, enjoyment, and inspiration for home gardeners and landscapers.

Want to learn how to attract bees and butterflies to your yard? Check out the Pollinator Garden.

Need a better way to plant on a slope? Perhaps you can replicate the Terraced Garden.

Curious to see how stormwater can be slowed and filtered following heavy rains? The Rain Garden provides a great example.

The Nash County Arboretum is open to the public 365 days a year, with guided tours available by request.

Once each month, the arboretum offers a Ten Plant Tour, which focuses on collections of ten plants that fit a common theme.

While any visit to the arboretum is a learning experience, the Ten Plant Tours serve as mobile classes amidst a scenic backdrop.

And with a different theme each month, you can come back again and again.

For more information, visit www.facebook.com/NashCountyArboretum.

—Matt Stevens

Smart Gardening: Raised-bed gardening makes life easier



Raised beds simplify garden care.
©Trequan McGee, NC A&T State University

Gardening is sometimes regarded as a labor-intensive, heat-drenching, weed-pulling horror. But those of us who read and implement gardening information often find gardening to be fun, easy-going, and nutritious. Gardening smarter instead of harder is the objective.

Raised-bed square-foot gardening can serve as a platform for gardening that is easy on both your body and your mind. Instead of a 6-inch-high bed full of weeds, how about trying out a 2½-foot-tall by 8-foot-long by 4-foot-wide raised bed? Such a raised bed should provide the proper weed protection, as long as you do not cut grass that contains weed seeds and let the clippings fall towards the bed.

Raised beds are easier on your body, as you do not have to bend over. You can grab a garden seat or flip over a 5-gallon bucket to be at the proper height to do most garden work. In addition to these benefits, a raised bed is the ideal place to try companion planting. Place companion garden plants close to one another, such as tomatoes and chives. Another tip is to string off 1-foot squares in each direction to add order and proper spacing to your garden. Planting tall plants in the middle will help you to avoid disturbing them when trying to access other plants. Plant running plants on the outside edges to encourage them to spill out of the bed and away from the middle plants. By implementing these pointers, you should be well on your way to gardening smarter instead of harder.

—Trequan McGee and Cyndi Lauderdale

Food Production: Leafy greens for the fall veggie garden

Because of their relatively short germination period and excellent performance in cooler weather, leafy greens are not only delicious. They are also nutritious and space-saving additions to any garden. Lettuce comes in two basic types: loose-leaf and head lettuce. Loose-leaf lettuces come in many shapes and colors, including ruffled green varieties such as 'Black seeded Simpson' and 'Simpson Elite', as well as some interesting red-leafed selections—such as 'Carioca', 'Red Sails', 'Red Salad Bowl', and 'Cherokee'. Loose-leaf varieties are usually ready to harvest within 30 to 40 days after starting from seed. Loose-leaf lettuces can be planted 8 to 10 inches apart. Or, if you are growing a salad patch, plant the lettuces closer together and harvest by clipping leaves a couple of inches above the soil. You can make two or three harvests from a patch. If you want to have continual harvest, succession plant seeds every seven to 10 days.



Leaf lettuces come in many colors.
©Lucy Bradley, NC State University

Romaine lettuce is also a good choice and is typically ready to harvest 60 to 80 days from planting. Varieties to try include 'Salvius', 'Ridgeline', and 'Breen', a compact romaine variety with red leaves. Butterhead lettuce, also known as bibb, gets its name from the slight buttery flavor the leaves produce. Space these about 6 to 8 inches apart and harvest between 40 and 50 days after seeding. Try varieties such as 'Edox', 'Alkindus', and 'Rex.' If you want to spice things up a bit, try planting arugula. If you like the spicier versions, give 'Wasabi', 'Wild Rocket', or 'Pronto' a try. Some milder versions include 'Astro', 'Surrey', or 'Apollo'. These milder versions are good for arugula-only salads, while the spicier varieties work well in mixes. Grow arugula as you would the larger lettuces, spacing seeds 12 to 18 inches apart. Harvest 40 to 50 days after seeding.

—Sam Marshall

Pest Alert: Nematodes in the vegetable garden

Nematodes are a common problem in sandy soils. Nematodes are microscopic worms that live in the soil. Many nematodes are beneficial, preying on pests, microorganisms, and even other nematodes. But some species feed on plant roots, stunting growth. Several species of nematodes are found in coastal North Carolina, but the most common and easiest to recognize is the root knot nematode.

Root knot nematodes can be a serious problem for vegetables. Affected plants may appear stunted and pale, drop flowers and fruits, wilt often, and decline even when plants have adequate water and fertilizer. The culprit is most obvious when plants are pulled at the end of the season. Plants infected with root knot nematodes will have bumpy, knot-like galls on the roots.

There are no chemicals available that will kill nematodes in a home garden, but several steps can be taken to manage them. One of the easiest options is to grow vegetables that are not susceptible to attack—including crops such as sweet corn, asparagus, broccoli, cabbage, kale, collards, and mustard. When available, choose nematode-resistant varieties of other crops—such as ‘Amelia’ or ‘Celebrity’ tomatoes. Certain cover crops can suppress nematode populations, as can frequent tilling in the spring and summer to expose nematodes to sun and air. Adding compost to the soil and soil solarization also help to suppress nematode populations.



Bumpy galls on roots indicate the presence of root knot nematodes.
©Lisa Rayburn

— Lisa Rayburn

Lawns: Preparing lawns for cooler weather

Believe it or not, there are weeds that grow in the winter. Some weeds you can expect to see in winter are annual bluegrass, Florida betony, chickweed, and cudweed, to name a few. A good way to prevent weeds from growing is to apply a preemergent herbicide in September.

Effective application of preemergent products depends on your turfgrass type and what weeds have been problems in the past. Postemergent herbicides are also effective, but their effective use depends on turfgrass type and weeds. The most effective means for controlling winter weeds is to identify and treat them early in the season while they are still young.

Unsure of what you have? Bring a sample of each weed into your county Extension Center to have the weed properly identified and to receive more specific control recommendations. Another resource is turffiles.ncsu.edu, the NC State turfgrass information website.

Proper mowing height is a good practice year-round, and in the fall it is a good idea to raise the mowing height by ½ inch to 1 inch, which will encourage the turfgrass to store energy throughout the winter. Remember that mowing height depends on the type of turfgrass you have!

Lawn mowers can be winterized by first disconnecting the spark plug and draining the oil and gasoline. Replace old oil with fresh, remove and clean the air filter, and replace the filter if necessary. Sharpen lawn mower blades and scrape under the deck to remove accumulated built-up grass.

Follow these maintenance steps for all other gasoline-powered machines. It may seem like a tremendous amount of work to get your lawn ready for colder weather. But come spring, you will be thanking yourself for all of the prep work you did last fall.

— Sam Marshall

Tips & Tasks

Submit soil samples to the NC Department of Agriculture prior to Thanksgiving to avoid the peak season soil sample fee.

Vegetables

- Plant cool-season crops like radishes, spinach, and lettuce in September. Cool-season herbs such as dill, parsley, and cilantro can be sown or transplanted.
- Plant garlic and onion until November. Choose short-day varieties of onions, such as ‘Grano’ or ‘Texas Supersweet’.

Ornamentals

- Fall is the best time of year to transplant trees, shrubs, and perennials. Keep new plantings watered as they get established.
- Plant winter annuals through November. As perennial beds go dormant, cut dead stems back to ground level. Collect leaves and debris from healthy plants and compost them.
- Seed heads of some plants can be left for winter interest or to feed the birds (for example, sedum, echinacea, and black-eyed Susan).
- Most ornamental grasses hold up to the winter weather, so leave them for interest. If they look messy, cut them back.
- Prune shrubs to remove dead, diseased, or broken limbs, but save significant pruning for the dormant season. Spring-blooming shrubs shouldn’t be pruned until after they flower.

Lawns

- Where winter annual weeds have been an issue, apply preemergent herbicides in September.
- Don’t overseed warm-season lawns such as centipede and St. Augustine because doing so can weaken the turf.

—Lisa Rayburn

Helping You Grow

NC State has a new tool to provide gardening information to the public. With a few keystrokes, most of your gardening questions can be answered at **gardening.ces.ncsu.edu**. There you will also find the latest issue of *Extension Gardener* newsletter.

Additionally, NC State's plant database can be searched by common name, scientific name, plant category, or photo. Data include growing requirements and plant characteristics. Timely gardening news fills the center of the page. The left sidebar of the website's home page lists many topics, which expand into more topics when you make a selection. If you have a burning question that you want answered immediately, follow these instructions:

Scroll down the left sidebar and select the **PUBLICATIONS** link, which will take you to another full page of possibilities. If that is too time-consuming, go back to the home page. In the search box at the top right of your screen, type in a keyword or question. Happy growing!

—Pam Jones



Taking a soil sample. ©Megan Gregory

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Plant Watch: Chalkbark maple (*Acer leucoderme*)



Chalkbark maple ©Tom Glasgow

Chalkbark maple (*Acer leucoderme*) is a smaller, slower growing version of the southern sugar maple (*A. saccharum* var. *floridum*)—a heat-tolerant, southern relative of the well-known sugar maple (*Acer saccharum*). Although the southern sugar maple, also known as Florida maple, is quite common in eastern North Carolina and occurs in coastal counties, the chalkbark maple is distributed more heavily toward the NC piedmont. Occurring naturally as an understory tree in dry forests, it has good drought tolerance and attractive bark

in winter. Fall color can be outstanding, ranging from yellow to orange to red. Chalkbark maple is adapted to climatic conditions from USDA Zones 5 through 9, so neither heat nor cold should be a problem anywhere in North Carolina. In the landscape, avoid wet or mucky soils, and select sites with partial or afternoon shade. For a list of NC nurseries that sell native trees, visit www.ncforestservice.gov/Urban/pdf/NurseriesSellingNativeTrees.pdf.

—Tom Glasgow

Incredible Edibles: Butterhead and leaf lettuces

If you aren't growing lettuce in your garden, you're missing out on a crisp treat in the spring and fall! Although lettuce will grow fast in full sun, it is one of the few vegetables that will tolerate shade, making it great to grow between taller veggies like tomatoes and corn. Lettuce grows best in fertile, well-drained soil with a pH between 6.0 to 7.0 and should be transplanted in the spring and direct-seeded in the fall.

Harvest leaf lettuce starting with the older outer leaves as soon as they are 4 to 6 inches long. Butterhead can be harvested like leaf lettuce, or the entire head can be harvested when it is moderately firm. Lettuce generally needs five to seven weeks to reach maturity. Slugs can sometimes be a pest. It is important to keep the lettuce patch free of weeds.

—Jarette Hurry

Sustainability: Soil testing for sustainable nutrient management

Fall is an ideal time to test your garden soil. Making sound decisions about soil management starts by learning your soil's pH, nutrients, and organic matter levels. Most gardeners know that to grow productive crops, the soil must contain nutrients such as nitrogen (N) and phosphorous (P). But gardeners may not be aware of the dangers of overfertilizing. Many garden soils contain excess nutrients (especially P) that can stimulate weed growth and pollute waterways through runoff or leaching. Testing the soil helps you select soil amendments and fertilizers and to apply *needed* nutrients—not more than is needed. This will support good vegetable yields and keep waterways clean. Gardeners can take advantage of the NC Department of Agriculture and Consumer Services free soil testing service by submitting soil samples from April through mid November. In general, gardeners can take these steps to improve soil quality and achieve balanced nutrient additions:

- Use legume cover crops as the main N source.
- Use plant-based composts made from leaves and yard waste to improve soil tilth, rather than large amounts of manure-based compost.
- Maintain P and potassium (K) levels in the optimum range with modest additions of manure-based compost and other organic amendments, as indicated by soil test results.

For more information, visit go.ncsu.edu/FCGHealthySoil and check out the first two resources: "Soil Test Interpretation and Soil Management" and "Soil Test Interpretation Worksheet." Gardeners can use the worksheet to interpret their soil test reports and choose appropriate organic amendments based on the results.

—Megan Gregory