NC COOPERATIVE EXTENSION

N.C. A&T STATE UNIVERSITY

NC STATE UNIVERSITY

ROBESON COUNTY CENTER

The Carolina Sandhills Gardener

September – November 2022

Important Information

Fall Gardening in Containers

Are you interested in gardening vegetables this fall but feel you don't have the space? Let's explore gardening in containers! We will look at different materials for containers, discussing some pros and cons of the different available materials, as well as the best media for those containers and even some suitable crops to plant. Join us September 15 from 6 – 8 p.m. at the O.P. Owens Agriculture Center, 455 Caton Road in Lumberton, for an interactive discussion.

Registration is required. The registration deadline is **Tuesday, September 13 by 5 p.m.** To register use the following link: https://go.ncsu.edu/fallgardenncontainers

2022 Extension Gardener Series

Join us Thursdays, September 22 – November 17, from 10 a.m. – 12 p.m. at the O.P. Owens Agriculture Center, 455 Caton Road in Lumberton, for a series of lectures and hands-on classes on how to grow vegetables, fruits, herbs, flowers, trees, shrubs, and more sustainably, and how to incorporate native plants into your landscape to support beneficial insects, birds, and other wildlife. **You must attend at least five of the Extension Gardener Series classes to be eligible for the *Extension Master Gardener Volunteer*[sm] training held in the spring of 2023.** For more information, including class schedule and registration link, please visit https://robeson.ces.ncsu.edu/2022/08/2022-extension-gardener-series/

Take Advantage of Soil Testing

Soil testing is a service provided by the North Carolina Department of Agriculture and Consumer Services (NCDA&CS) at their Agronomic Division in Raleigh that will assess the present levels of major plant nutrients, soil pH, and micronutrients. Recommendations will include the amounts of lime and fertilizer, if necessary, to meet the requirements of the specific plant or crop being grown. You can pick up free kits at your local Extension Center. Soil samples are currently free through the end of November. For more info, visit https://www.ncagr.gov/agronomi/.

If you are interested in learning more about any information in this newsletter, contact the Extension Center at 910-671-3276 or visit our website at robeson.ces.ncsu.edu. For accommodations for persons with disabilities, contact Cooperative Extension no later than ten (10) business days before the event.

Mack Johnson
Extension Agent
Agriculture – Horticulture
Email: Mack_Johnson@ncsu.edu

Inside This Issue

Robeson County Center
O. P. Owens Agriculture Center
P. O. Box 2280
455 Caton Road
Lumberton, NC 28359

Phone - 910-671-3276
Fax - 910-671-6278
Website - robeson.ces.ncsu.edu

N.C. A&T STATE UNIVERSITY

NC STATE UNIVERSITY

842 copies of this public document were printed at a cost of $0.57 per copy.

Fall Lawn and Turfgrass Management

By: Jacob Barber
N.C. Cooperative Extension Horticulture Agent, Bladen County Center

There are several different warm-season turfs in the Sandhills. Some warm-season turfs include Centipede, St. Augustine, Bermuda and Zoysia grass. As warm-season grasses, they can withstand our high temperatures and high humidity. However, when they begin to transition into the colder months, they begin to take on some stress. Some stressors would include too much water (hurricane season), not enough water, insects, diseases, even the shorter days with cooler temperatures at night. As they go through the stress, the symptoms or evidence do not show up immediately. It could be until next season that you see the symptoms, such as a delayed green-up, bare spots, or dead patches. There are a few things you can do this fall that will help your lawn prepare for the new season.

If you did not take a soil sample this year, this fall is as good a time as any. The soil sample will help you figure out the pH of the soil and the nutrient indexes that are available to the plant. The NCDA will recommend an amount of lime and fertilizer, depending on what your results are. Remember, when taking a soil sample for your lawn or turf, you must take 10-15 cores that are at least 4 inches deep into the soil. Put the cores of soil into a clean, non-metal bucket and then mix it well so that it is as random as possible. Pour the soil into the sample box up to the red line. You can take this sample to your local Extension office and they will send them to the NCDA Lab in Raleigh free of charge until November.

Fall is a great time to fertilize your warm-season lawns so that it helps the plant store its food to overwinter. However, nitrogen should not be applied at this time. Nitrogen will encourage leaf growth, which could have the chance of getting damage from frosts this winter. Damage from the frost could make the turf more susceptible to diseases or pests. Your fertilizer focus should be a potash or potassium application. Ideally, it will help prevent stress from the winter and also strengthen the roots of the warm-season grasses. If you take a soil sample test and it shows that you have a deficiency in potassium, it is recommended that you use a high potassium fertilizer (for example, 1.6 pounds of 0-0-60 or 2 pounds of 0-0-50.)

Weed control is extremely important to consider in the fall if you want to get a head start on the winter annual weeds. A pre-emergent application at Labor Day and then an additional one made around Thanksgiving will control weeds such as henbit, chickweed, burweed, annual blue grass, hairy bittercress, etc. There are several pre-emergent products that will keep the plant from further growing after germination. Be sure to look for products with the active ingredient pendimethalin, benefin, trifluralin, prodiamine, or oryzalin. If the weed has already emerged, a pre-emergent will not control the weed. You must use pesticides that will control them by contact or systemically. These products include Speedzone, Celsius, or Imaziquin. Please be sure to read your pesticide labels before applying any of these products.

If you have any questions or concerns, please contact your local Extension office.

Plant Spotlight: *Rudbeckia fulgida,* "Black-eyed Susan"

By: Jacob Barber
N.C. Cooperative Extension Horticulture Agent, Bladen County Center

Black-eyed Susan, *Rudbeckia fulgida,* is an herbaceous perennial that is a great plant to be added to your fall flower garden or pollinator garden. It will give it a wonderful yellow and basal green color that will last until autumn frosts. Even after the frost and the flowers have wilted away, the leaves will survive through the winter and give an appealing ground cover in your flower bed. Be sure to leave the seed heads for the birds and remove the floral stem from the plant to introduce new growth of leaves for a dense ground cover.

Rudbeckia is a fairly easy plant to grow. Soil conditions should not be soggy but well drained. It is recommended that you take soil samples before planting flower beds for optimal growth. This plant is full sun but can withstand partial shade. The size of this plant can range from 2-3 feet in height and 1-2 feet in width. A foot to three feet should be the space between plants, depending on the area in which you are planting. This plant is resistant to dry soil and drought. Propagation can be done by division in the spring or fall, or you can propagate it by seed.

R. fulgida, bloom detail. By Debbie Roos

This is a clumping plant so the roots grow underground as rhizomes. This is why the best way to propagate this plant is by dividing the roots. The growth form of this plant makes it suitable for planting in areas such as perennial beds, backgrounds, pollinator gardens, naturalized areas or forest gardens, and borders. If you have bees or a large population of pollinators, this is the perfect plant to have on your property as a source of food.

For additional information, please visit the NC Extension Gardener Plant Toolbox at https://plants.ces.ncsu.edu

Early Bird Gold Flower Form. By Jim Robbins

Toothed, serrated leaves. By Lucy Bradley

Edible Corner: Pumpkins in the Fall

By: Mack Johnson
N.C. Cooperative Extension Horticulture Agent, Robeson County Center

Fall is on the way, and that means everything pumpkin will soon take over Pumpkin spice, pumpkin scents, pumpkin shakes, pumpkin ice cream, pumpkin doughnuts, pumpkin pie - you name it and somebody can put pumpkin in it. Let's explore this versatile and decorative edible.

Pumpkins are native to North America and were used by Native Americans before the arrival of Christopher Columbus as both decoration and food, pretty much the same way they are used today. A pumpkin may be one of several different species, though they are all in the same genus, *Cucurbita*, which, according to Wikipedia, is Latin for gourd. The primary species are *C. maxima*, *C. moshata*, and *C. pepo*. Different pumpkin species and varieties may be used in different ways, but knowing which is best for your specific purpose will give you the most successful outcome.

For most families, purchasing a pumpkin in October means pumpkin carving. The carved pumpkin creations sit on many porches, waiting for the big night of trick-or-treating. Jack-o'-lantern pumpkin varieties have the scientific name *Cucurbita pepo* and exhibit a uniform color and shape that makes for easy carving. They have less interior flesh (thin-walled) and a flat bottom, so they can sit upright.

While jack-o'-lanterns are great for carving, they may not be the best option for cooking. If you would like to make your pumpkin pie starting with the pumpkin itself, choose one bred for best taste and texture for cooking. You can find "pie pumpkins" or "sugar pumpkins" at farmers' markets and produce stands. Pie pumpkins look similar to jack-o'-lantern types and are the same species, but they are selected for traits suitable for cooking. They tend to be smaller, darker colored, and more dense (heavier for their size), with a sweeter, less stringy flesh than a larger jack-o'-lantern type.

Another excellent pumpkin to consider for fall cooking and decorating is *Cucurbita maxima*. This pumpkin is excellent for pies and very attractive as well, though not as good for carving. These are often blue-green pumpkins, with deep sutures and a somewhat bumpy texture. *Cucurbita maxima* also includes the beautiful, pure white pumpkins that have become more widely popular. All are suitable for cooking. Other excellent cooking pumpkins include a third species, *Cucurbita moschata*. These are typically buff-colored pumpkins, broad and rather flat.

Pure pumpkin, whether canned or homemade, is an excellent source of fiber, vitamin A (in the form of beta-carotene, an important antioxidant), vitamin C, and potassium. Is it worth the trouble to make your own pumpkin puree rather than buy it in the can? Many would say the freshness and taste is worth it. Canned pumpkin has all the health benefits of homemade puree. If buying canned pumpkin, make sure you are getting the pure pumpkin. "Pumpkin pie filling" has higher salt and caloric content than pure pumpkin. One thing you get when you make your own pumpkin puree (or carve a jack-o'-lantern) is seeds! Cleaned and roasted in the oven, pumpkin seeds are a delicious and healthy snack or crunchy addition to a salad or soup.

This year, consider adding pumpkins to your fall decoration. If protected from rain, pumpkins can last for weeks or months, adding beauty to your front porch or dining table. And by choosing your pumpkins carefully, you may be able to eat your attractive fall decorations in a delicious pie at Thanksgiving!

Seasonal Tips and Tasks: Fall

By: Mack Johnson
N.C. Cooperative Extension Horticulture Agent, Robeson County Center

Replenish your raised beds and containers with a couple of inches of quality compost. Cover-crops can be beneficial to your garden or raised beds if you're not growing cool season crops. The right cover-crop can add green manure, organic matter, and even nutrients to your garden. Legume cover-crops such as red clover, crimson clover, vetch, and peas will add nitrogen to your soil, along with preventing erosion and providing weed control. Another great plus is they can support beneficials and pollinators during the time of year many plants lie dormant.

Vegetables:

- Plant cool-season crops like radishes, spinach, turnips, collards, tender greens, and lettuce in September.
- Cool-season herbs such as dill, parsley, and cilantro can be sown directly 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 or plant 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. Seed-heads of some plants can be left for winter interest or to feed the birds (such as sedum, echinacea, and black-eyed Susan). Collect leaves and debris from healthy plants and compost them.
- Plant spring flowering bulbs now, inter-planting with perennials, and add in drifts for added interest.
- Most ornamental grasses will hold up to the winter weather, so leave them for interest. If they begin to look messy, cut them back.

- Prune shrubs to remove dead, diseased, or damaged limbs, but the most significant pruning should be performed later during the dormant season. Spring-blooming shrubs shouldn't be pruned until after they flower.

Now is the time to replenish mulch in your landscape. Three inches of mulch will suppress weeds, conserve moisture, and help protect underlying soils from temperature extremes. Another benefit of mulch is protecting the plants from mechanical induced damage such as weed eaters and mowers.

Pest Alert: Stink Bugs

By: Robby Brockman
N.C. Cooperative Extension Area Horticulture Agent, Hoke & Scotland Counties

Fall is the time that we often start to notice insects that have been around all year. We notice them now because their populations have had the chance to build up over the summer, and because many try to enter our houses and other structures when the temperature cools down. One group of insects that always seems to become more apparent in the fall is stink bugs.

While many insects go through complete metamorphosis, stink bugs go through incomplete metamorphosis. As soon as a stink bug hatches from its egg, it has a strong resemblance to the adult insect. It also has the same manner of feeding and is often found alongside adults. These young are called nymphs and are different from the larvae of beetles, bees, and butterflies which go through complete metamorphosis. Stink bug nymphs do not have wings, and while they are the same shape as adults, they tend to be more colorful, with colors that change as they mature. They have several generations a year and will build up in population before winter weather kills many off.

In an attempt to protect themselves from winter weather, the invasive brown marmorated stink bugs will invade houses and other man-made structures. Within houses, they will often aggregate together and are usually not very active. However, on warm days they fly around and can be a nuisance. A safe and effective method of controlling invading stink bugs is to vacuum them wherever they are found. These vacuumed bugs can then be safely killed using a freezer, soapy water, feeding them to fish, or simply smashing them outside.

Stink bugs are polyphagous, feeding on many different species of plants. They are problematic on many agronomic crops, vegetables, fruits, and even trees. Stink bug feeding damage looks much different than that of beetles, caterpillars, and many other insects. While beetles and caterpillars chew up their food and often leave large holes, stink bugs and their relatives have mouth-parts that allow them to pierce plant tissues and suck out liquids. This piercing and sucking damage doesn't leave holes, but it often discolors fruits and seed pods - a result of tissue death from toxins released during feeding. The tissue death can also lead to deformation of growing fruits as the new tissue grows around dead tissue. While deformed, these fruits are still safe to eat.

Frank Peairs, Colorado State University, Bugwood.org

It is important to positively identify the insect that you are seeing before killing it. There are a few stink bug species, such as the spined soldier bug, that are predators. The spined soldier bug will feed on many pest insects, sometimes even nymphs of pest stink bug species.

Sustainability Feature: Composting

By: Robby Brockman
N.C. Cooperative Extension Area Horticulture Agent, Hoke & Scotland Counties

There are few more natural and important extensions of gardening than that of composting. While dead plants and other biodegradable materials will naturally break down without human involvement, active composting can speed up the process and keep the garden waste to more out-of-the-way areas. Composting is an ancient practice and has been used by cultures all over the world. For the gardener looking at having a more positive impact on the environment, the practice of composting is essential.

There are many different methods of composting, but they are often split into two categories - fast (hot) and slow (cold) composting. Fast composting is a much more intensive method of composting that focuses on getting the temperature of the pile hotter. The heat is released by microorganisms which are eating the biodegradable materials and breaking it down. While heat is released by all composting, it is more abundant in fast composting because the composting process is happening quicker. Getting your composting done quickly appeals to just about everyone, but it is more intensive and involves aerating the pile, keeping it moist, and making sure the ratio of brown (high carbon) and green (high nitrogen) materials is right. Slow composting, on the other hand, simply involves gathering the biodegradable materials in a pile and watering it every once in a while.

While just about all food scraps and biodegradable materials can be composted, there are a few principles you should follow. We want to keep a good mix of brown and green materials in the compost bin. Ideally, the carbon to nitrogen ratio should be close to 30:1. If we have too many browns, the composting process will be slow. If we have too many greens, the compost can start to stink. Additionally, some biodegradable materials should be avoided. A few of these materials include pet and human feces, meat, bones, fat, oils, dairy, weed seeds, diseased plant material, and anything containing chemicals or pesticides.

Table 1. Carbon-to-nitrogen ratios of commonly composted materials.

Materials High in Carbon (Browns)	C:N	Materials High in Nitrogen (Greens)	C:N
Autumn leaves	30-80:1	Vegetable scraps	15-20:1
Straw	40-100:1	Coffee grounds	20:1
Wood chips; sawdust	100-500:1	Grass clippings	15-25:1
Mixed paper	150-200:1	Animal manure	2-25:1
Newspaper; cardboard	560:1		

Source: Dickson, N., T. Richard, and R. Kozlowski. 1991. Composting to Reduce the Waste Stream: A Guide to Small Scale Food and Yard Waste Composting. Ithaca, NY: Northeast Regional Agricultural Engineering Service.

There are two things that often turn people off to the idea of composting. The first is that many people are afraid their compost pile is going to smell. A properly working compost pile should not have a strong smell, and if it does, it is likely because the pile is too wet, doesn't have enough air movement, or has too many greens. The second thing that turns people off to composting is the fear that their compost pile is going to attract rodents and other undesirable animals. These animals are attracted to food scraps, especially meat and dairy products. If you have problems with animals visiting your compost pile, bury appropriate food scraps inside the pile so that animals can't smell and access them.

The length of time to finish a batch of compost can be highly variable. If you are more diligent about turning your compost pile, adding water, and have a fairly large pile, it can take as little as three months to produce finished compost. If, however, you want to take a more hands-off approach and make slow compost, it is likely that you will need to wait a year or longer. Compost is ready to use in your garden when the original components are unrecognizable and it has a crumbly texture and light, earthy smell.

Not only is compost good for the planet, it is also great for the plants in your garden. Compost helps to hold water and nutrients for longer periods in our sandy soils. It also slowly releases nutrients over the season, speeding up in warm weather when our plants are most active.