

Scotland County Center

June – Aug. 2024

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The Carolina Sandhills Gardener

Scotland County Announcements

- **Become a Extension Master Gardener Volunteer:** Fall classes will be held in person every Thursday from 10am-noon starting October 3rd until November 14th at **Robeson County Center**

O.P. Owen's Agricultural Center, 455 Caton Rd, Lumberton, NC 28360
(Open to residents of Hoke, Scotland, and Robeson counties)

Summer Learning Opportunities:



Did you know?! Scotland County was selected as one in 8 counties throughout the state to conduct a tomato research trial? Pests and diseases can make growing a bountiful tomato crop challenging in North Carolina. To help identify tomato varieties that are less problem-prone, our Scotland County Extension Master GardenerSM volunteers are trialing three new disease-resistant varieties developed by NC State plant breeders alongside Cherokee Purple tomatoes.

For more info or to visit the trial, please contact the Scotland County Center or send an email to: Ashley_Grubb@ncsu.edu



Soil Sample Fees

Soil Samples are now FREE until Dec.1, 2024.

The turnaround time for samples right now is 2 weeks. Plan accordingly. Samples will be sent every week as necessary.

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For any meeting in this newsletter, persons with disabilities and persons with limited English proficiency may request accommodations to participate by contacting the Extension Office where the meeting will be held by phone, email, or in person at least 7 days prior to the event.

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Lawns and Turfgrass: Ground Pearls

Jacob Barber

Horticulture Agent with N.C. Cooperative Extension - Bladen County

What exactly are ground pearls? They are a scale insect that feeds on the roots of turfgrass. They emerge from cysts in early spring and crawl in the soil until they find the root of some turfgrass and insert their piercing-sucking mouthpart into the root. They create a shell around themselves, very much like the shell of a scale insect. They are more prevalent in sandy soils than they are in heavy clay soils.

What do ground pearls look like? In the spring, when the crawlers emerge and are moving around in the soil, they are pink and fleshy. This is actually the best time to see them. They stand out from the soil, making them easy to find. In late May or early June is when you'd see most of them. After they have formed the shell around themselves, they are gray in color round to egg shaped, and about the size of a large piece of sand or a little larger. The shells are smooth rather than angular like sand. The immature cysts look like pearls among other grains of sand.



Ground Pearls in Turf | NC State Extension Publications

How do I control ground pearls in my lawn? Currently, the best recommendation is to maintain a healthy lawn by following the lawn maintenance calendar for the lawn grass that you have. Be sure to use the correct mowing height and frequency, so that no more than one third of the grass height is being removed. Keep the lawnmower blades sharp, so that you leave a clean cut on the blades of grass. Irrigate when needed. Fertilize the lawn at the correct time and correct rate, so it has the nutrients needed in order to grow. There are currently no known chemicals that offer effective control of ground pearls on the market. A healthy and vigorous lawn is the best defense against ground pearls. Research has also shown that Bermuda, Bahia, and carpetgrass are less sensitive to the scale insect. They are recommended to be used in lawns with large ground pearl populations.



How do I know if ground pearls are in my yard? The damage ground pearls cause looks very similar to some other turf problems, so finding the actual insect is the best

way to know that ground pearls are present. Ground pearls usually cause a circular pattern of death in the lawn. These dead areas usually get larger in the summer when the grass should be growing vigorously. Another symptom is that there is usually no grass growing in the center of the dead area, only weeds may be found there. To test your grass for ground pearls, you must look at the roots of the grass. Dig a hole on the edge of the dead grass patch and the healthy grass (splitting the difference). Look within the roots of the grass for pink fleshy insects, that would be pale colored and pearl shaped cysts, hanging close or on the roots.



Ground pearl range in size from as small as a grain of sand up to 1/16".

If you have any other questions about ground pearls or general lawn and turfgrass issues, please contact your local extension office. Feel free to visit the NC Extension TurfFiles website for more information on Ground Pearls: <https://content.ces.ncsu.edu/ground-pearls-in-turf>

Plant Spotlight: Garden Canna ‘*Canna x generalis*’

Morgan Simpson, N.C. Cooperative Extension - Bladen County Center Summer Intern

“Garden Canna” or “Canna” is an herbaceous, flowering plant with fleshy rhizomes, tall stems, large leaves, and vibrant colored flowers. Mature Garden Canna can reach a height of six feet tall and two feet wide. It is believed that Garden Canna is the hybrid between *Canna indica* and *Canna iridiflora* or *Canna glauca*. Regardless of the specific crosses, the name “Canna x generalis” is used to refer to all canna hybrids. Article continues onto next page...

Garden Canna possesses a flashy, tropical appearance that is eye-catching to many gardeners and horticulturists. Their flowers are 4-8 inches long, with 3 petals and 3 sepals. Their flowers can grow as panicles or racemes. Common Garden Canna colors include pink, orange, red, ivory, coral, yellow, white, cream, or a variegated color pattern depending on the cultivar. The plant boasts vivid colors the months of July and August. To promote color all summer long, remove spent flowers to allow new color to grow in. Another notable attribute of Garden Canna are their large leaves. Their leaves are ovate shaped and are 18-36 inches long. Leaf color can also vary drastically between cultivars. Depending on the variety, Garden Canna can have a rosulate or alternate leaf arrangement pattern.



Canna in the landscape

Garden Canna originated from the tropics and subtropics of India, North America, and South America. Therefore, the plant can handle high temperatures. It prefers full sun (6+ hours of direct sunlight/day) to partial shade (2-6 hours of direct sunlight/day) and does best in slightly acidic, well drained, moist soils. If planted in poorly drained soils, the rhizomes will rot. However, established specimens can tolerate some drought or standing water. Although these plants can withstand the heat, they cannot withstand high winds or too low temperatures. Garden Canna is part of USDA Hardiness Zones 8a, 8b, 9a, 9b, 10a, 10b, 11a, and 11b. Rhizomes can be left in the ground over the winter in warmer climates. However, the rhizomes should be taken from the ground and placed into storage when planted in zones where it is not winter hardy. When storing, rhizomes should be placed in vermiculite or peat and kept in a dry, cool space. To propagate the plant, one can use rhizomes, seeds, or plant division.

Various pests must be monitored when growing Garden Canna. Garden Canna pests include Japanese beetles, slugs, snails, and leaf-rolling caterpillars. These pests feed on the leaves of the plant. Aphids must also be monitored, as they can spread Aster yellows disease which causes leaves to turn yellow then brown. Other issues to watch for include bacterial blight, leaf spot, rust, and Canna mosaic virus. Canna mosaic virus can be detected by looking at the leaves of the plant. Pale yellow stripes on the leaves of the plant are an indicator that the plant is sick with the virus.

For more information about this flower and more follow this link: <https://plants.ces.ncsu.edu/plants/canna-x-generalis/>



Red varieties with beautiful leaves



Yellow varieties/cultivars

The Pawpaw Potential

Mack Johnson

Horticulture Agent with N.C. Cooperative Extension - Robeson County

Looking for another warm-season, incredible edible fruit brings me to the undiscovered potential of the pawpaw tree. Interest seems to be growing in our native pawpaw found throughout Canada and the eastern United States, yet its relatives are tropical, and the fruit gives a semi-tropical appearance since it resembles a mango and has been described as custard-like with a hint of pineapple, mango, and banana. In early days it was referred to as the “poor man’s banana”.

The pawpaw has the extremely unique ability to grow both in full-shade or full-sun. Growing in full sun will produce higher fruit-yields. It is a natural understory tree which means dappled sunlight. Pawpaws prefer moist, well-drained soils that are slightly acidic with a pH of 5.5 to 5.7. Pawpaws can be grown in hardiness zones 5a through 9b. The trees can reach 12-15 feet tall with a slightly narrower spread. The best time to plant pawpaws are spring and fall when the tree is not actively growing. Tree spacing should be 8-15 feet. It is recommended to grow young trees in shade the first year due to the plant’s sensitivity to ultraviolet light. These trees will need plenty of water during establishment the first few years. Thick layers of mulch will reduce weed competition and help conserve soil moisture.

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The flowers are perfect but they are not self-compatible, requiring planting more than one cultivar for successful pollination and fruit production. The flowers are produced on last year's wood and are a deep maroon to brownish-purple. Unfortunately, they do have an unpleasant odor. They are pollinated by flies and beetles.

Much research and time has been extended to improve the pawpaw tree. There are now at least 45 cultivars and varieties, each having improved distinct characteristics. Some bear fruit weighing as much as a pound. Some have earlier fruit ripening and reportedly are capable of being self-fertile. Pawpaws normally ripen from late August into October. The fruits skin is not edible and can cause mild dermatitis when handled. The high nutritional value of the fruit has driven much of the interest and research. Research has also revealed that the leaves, bark and twigs produce anti-cancer and insecticidal compounds called acetogenins.



NCSU Extension Gardener Toolbox/Jim Robbins

Pawpaw fruit are high in iron and a good source of potassium and several essential amino acids. They contain significant amounts of zinc. They are very high in vitamin C, niacin, potassium, calcium, phosphorus, magnesium, copper and manganese, and contain six times as much riboflavin as an apple. So, if you are looking for a nutritious native to try in your yard, heed the potential of the pawpaw. For more information contact your local North Carolina Cooperative Extension Center.

Seasonal Tips and Tasks: Rain Gardening

Mack Johnson



Photo courtesy of EPA

I usually address Tips and Tasks with one of my articles. I am still addressing this with a written suggestion on stormwater management. Here are tips and tasks to managing stormwater on a residential scale.

With all the different types of gardening we enjoy, has anyone before now considered rain gardening? Yes, we have a gardening module directed specifically for rain and rainwater capture. One of the major mind sets that has helped bring this about is how everyone goes to great extent to alleviate any standing water in their landscape, and how quickly we can divert any rainfall or surface water. When our main goal is to quickly divert any rainwater away, or off our property, we are creating another environmental hazard – stormwater runoff.

Stormwater runoff poses environmental and health issues by its ability to carry off debris, excess fertilizer, other nutrients, pollutants, and soil, causing erosion. Many folks

don't like to hear this, and probably even more may not believe me when I say homeowners cause more nutrient pollution than farmers. Homeowners often decide to fertilize the lawn yet have no idea what is actually needed. A proper soil test can tell you exactly what you need, and I'm willing to bet it would be a much smaller volume of fertilizer than was actually applied.

Consider what your current neighborhood looked like 200 years ago; now look at how much of your property is covered by an impervious surface. Chances are, if you live on a typical city lot, over half of the property – including the roof, street, driveway, and sidewalk – now deflects any rain that falls on it. A "country" or rural lot the average size of a half-acre will probably lose a third to house and driveway, excluding the street. Now what is the consequence of all this water-absorbent land loss? Ironically, it means more surface water to drain away from our property but to our own demise. We are also shortchanging ourselves by reducing the area capable of recharging our groundwater aquifers.

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The answer is to “slow it down, spread it out, and soak it in.” We do that by intentionally creating features in our landscape to accomplish this, and one well known method is a rain garden – a small depression or bowl, scaled to cover about 20 percent of the impervious surface square feet on your property. This allows plants and soil to remove nutrients and pollutants the way nature intended. This garden can be quite beautiful by filling it with plants that are able to stand a few days of flooding. A well-designed rain garden should drain in three days, leaving no standing water, so mosquitoes won’t be a problem since their larvae take at least seven days to mature. The garden also needs to be strategically placed to intercept the normal route of surface water runoff but not at the lowest point. Its placement should allow for overflow.

For more information on rain gardens, please contact your local Extension center for a construction manual and/or a list of plants approved for rain gardens.

Pest Alert: Outsmarting Chiggers

Sydney Ivey

N.C. Cooperative Extension - Cumberland County Center Summer Intern



Thomas Shahan, CC BY 2.0 <<https://creativecommons.org/licenses/by/2.0/>>, via Wikimedia Commons

At the beginning of May, I was excited to attend my first baseball game at North Carolina State University as a student. I went with a group of friends and sat on the grass with the rest of the group. I was having so much fun until I started to feel itchy. It was not like I had been bitten once, but like I had been bitten multiple times. The problem was Chiggers. Chiggers are tiny red mites with eight legs. They are notorious for being hard to see, but you will know when you come in contact with Chiggers.

Chiggers are usually found in grassy and woody areas of the landscape. They love warm weather, so they are most prominent during the summer and fall. Chiggers like to attach to your skin and clothes when you brush against plants. They are very hard to see with the naked eye as they are approximately 1/150 of an inch in size. They are known to get into your clothes and bite you multiple times before you even realize they are there. Chiggers are often compared to ticks, but they are not blood-sucking pests. Instead, Chiggers pierce the skin injecting a digestive enzyme that allows them to use skin cells for food.

The most common areas for Chigger bites are the ankles, lower legs, and waist. Thankfully, there are preventative steps that can be taken to keep from running into these tiny red pests. One of the best things to do for chigger prevention is to keep your lawn mowed, preventing grass from getting overgrown. This will help protect you and your pets. To prevent chigger bites, use bug spray with the active ingredient diethyltoluamide (DEET). You will want to make sure you apply the spray to areas such as your sock line, pants bottom hem, and waistband extra well. Some people prefer to stuff their pants’ legs into their socks, leaving no openings for the pest.

The first thing to do after you encounter Chiggers is to wash your clothing and shower to remove them from the skin. Chigger bites can cause irritation for up to three weeks. Bites can be treated with over-the-counter anti-itch creams or ointments such as calamine lotion, or hydrocortisone. You can also take antihistamine pills to relieve itching. Be sure to read and follow the directions carefully.

Be on the lookout for this pest as this is their favorite time of the year. Do not let Chiggers cramp your summer style and take preventative steps to keep those tiny terrors at bay!



Dick Culbert from Gibsons, B.C., Canada, CC BY 2.0

Sustainable Feature: From Green, to Brown, to Gold

Allen West

Horticulture Agent with N.C. Cooperative Extension - Cumberland County Center

Spring is here and summer is coming fast, which means that the familiar hum of lawnmowers will be heard around the neighborhood for the next several months. When mowing your lawn, an important question arises, should I bag or rake up the grass clippings from my lawn, or just leave them? Under normal circumstances it is recommended you leave grass clipping on your lawn after mowing.

There are three main benefits to leaving grass clippings on your lawn. First of all, grass clippings help to reduce your lawn's fertilizer needs by adding nutrients back to the soil. Some studies have shown that leaving grass clippings can reduce fertilizer needs by as much as half. Small, but helpful amounts of nitrogen, phosphorus and potassium are released as the clippings decompose over time.

Another benefit to leaving grass clippings on your lawn, is that as they decompose, valuable organic matter is added to the soil, helping to improve its structure. Organic matter helps soils to retain moisture, cutting down on irrigation needs, especially during dry periods. Organic matter also helps to improve soil aeration, drainage, biological activity as well as improve lawn root growth. These are all great benefits for many of us in our region who deal with sandy soils.

You may have heard that leaving your grass clippings can build thatch levels to harmful levels in your lawn. Even though this is often repeated, research has shown this is not the case. Normal grass clippings do not add to lawn thatch. High thatch levels by excessive nitrogen applications, infrequent mowing, and but not normal grass clippings.



Wikipedia commons public domain

els can be caused
compacted soils,

The final and more practical reason to leave the grass clippings is that it will save you time and work. Most would agree that less work on your lawn, leading to better benefits is a win, win situation. Why spend time and energy removing what, in the long run, can save you time and energy?

With all that said, there are a few circumstances we do recommend removing grass clippings. For example, we recommend removing "clumps" or piles of grass clippings that form after mowing the grass when it was unusually tall. These thick grass pile layers can prevent sunlight from reaching the grass, causing yellow or even bare spots. Remove grass clippings if you mow when your lawn is wet, as the grass clippings can mat together causing issues. We also recommend removing grass clippings if you are dealing with any lawn diseases, or mowing at a time of year where weed seeds may be prolific.

Grass clippings can be a valuable resource to the health of your lawn. So, leave those green grass clippings, let them turn brown and over time as they add nutrients and improving your soil's condition, will add many golden benefits to your lawn.

Green Industry Updates

Ashley Grubb

Area Horticulture Agent with N.C. Cooperative Extension – Hoke & Scotland County Centers

I am thrilled to be the new Area Horticulture Agent for Hoke and Scotland Counties! I moved up to North Carolina at the end of February from Houston, Texas with my husband, 5 year old daughter, dog, bunny, and a 12 foot trailer full of plants. We're still unpacking and learning the area but are so happy to be here and call this beautiful place home!

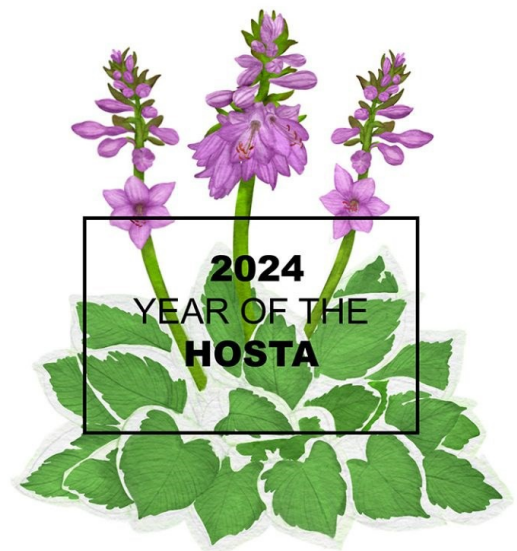
For the past 12 years, I was a buyer and operations manager for one of the top 100 retail nurseries in the country. My role within that organization allowed me to research and purchase plant material for the nursery, create educational programming for the local community, and oversee the growing schedule and plant selections for a 6 acre greenhouse growing operation. I was the on-site resource for insect, disease, and chemical/fertilizer questions at the nursery, and I also had the fun job of showcasing everything that was happening there through its social media channels. I worked closely with Texas A&M AgriLife Extension and the Texas Nursery and Landscape Association as well. In terms of credentials, I have 2 degrees from Texas A&M University in Conservation Biology & Biodiversity and Entomology and I am a Texas Master Certified Nursery Professional. Outside of my professional career I have created a non-profit that works to promote monarch butterfly habitat restoration through the growing and distribution of native milkweed, while providing jobs for adults who have disabilities. I LOVE gardening. It is both my hobby and my profession. I haven't found an aspect of gardening that I don't like (even weeding can be therapeutic)! I am a lifelong learner and enjoy the process. I hope to be a useful resource for each of you and I look forward to all of the new things that you can teach me too!

Here at NC State Extension, I am ready to hit the ground running and hope to soon be able to offer a schedule of lawn and garden related programming that we can all be excited about! Please feel free to come by and say hello or send me an email! I would love to hear about the programs and horticultural topics you are interested in. If you would like to contact me, my email is Ashley_Grubb@ncsu.edu.

While it might not have the most catchy title, the Green Industry is this beautiful multi-faceted gem of a category that encompasses all of the world of Horticulture. From your favorite local garden center and florist to advanced Biotechnology research and ecological conservation, plus everything from landscape design to golf course greens and farmer's markets in between. There are so many interesting things happening every month of the year that I could spend days just covering the highlights! But for now, here are a few things you might find interesting.

PANTONE®
13-1023
Peach Fuzz

The California Spring Trials recently wrapped up their big showing for 2024. This event is held annually and is all about what's new and exciting in the world of plants. It's where each of the biggest plant growers in the world gather to show off their brightest pink geraniums and pansies with flowers twice the size of last year's plants- they put on an extraordinary show with tours and plants in elaborate displays for miles and miles. If you want to see pictures or explore virtual tours (I'd highly recommend it) you can search online for 2024 California Spring Trials (CAST). Many times this is where garden centers look to find new and exciting plants to offer you over the next few years. It's fun to get a sneak peek ahead of time!



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The National Garden Bureau selects around 6 plants each year to gain the title of plant of the year. Did you know that 2024 is the Year Of The: African Violet, Squash, Angelonia, Lily, Buddleia, and Hosta? How many of these are you growing? If you aren't growing them, but want to try, you're in luck! All of the "Year Of" plants have extra information and resources promoted online and I'm sure you'll see extra availability and information at local garden centers too! Be on the lookout!

Many landscape designs, outdoor decor and garden center displays are also influenced by the Pantone Color of the Year. This year, the color that was chosen is called Peach Fuzz. Are you planting and decorating in shades of peach?

Speaking of peaches...A new study published by the American Society of Plant Biologists announces that researchers have identified the genetic reason for what makes a weeping peach tree weep. A missing protein starts a chain reaction that causes the branches to grow downward. This could eventually affect the way we grow lots of different kinds of plants that we rely on for food- weeping branches take up less space than branches that grow upwards and outwards, and make harvesting easier. This could be a potential answer to the question of how do we grow more food for our growing population in the same amount of space?

There's always something new and interesting happening in the Green Industry. I can't wait to see what exciting things this summer holds for the world of plants!

Container Gardening for Beginners

Ashley Grubb

With the right space, soil, and drainage you can grow almost any plant in a container! All that is required is knowing a little about your plant of choice up front. Here are a few tips and tricks to make sure that your plant will be happy in its contained home for a long time.

1. How big does your plant get when it is fully grown? How fast will it get to that size?

A hardy hibiscus will grow from a dormant stick barely poking above the ground into a 4-6 ft shrub in a matter of months. Attempting to keep one in a small pot is sure to lead to frustration with regard to the constant need for water in the summer as well as potentially tipping over on windy days. Growing it in a large, heavy container that doesn't easily tip over would be much better!

2. How does your plant respond to pruning?

Some fruit trees will achieve towering heights when growing in a landscape, however they also will tolerate pruning to be kept at a smaller size that is more appropriate for a large container.

3. Does your plant prefer to be wet or dry or right in the middle at "evenly moist"?

If you're growing a plant that would typically thrive in a wetland, maybe you don't need drainage holes in your container. Cacti on the other hand prefer any excess water to get out of their pots immediately. Check the bottom of your container to be sure that it's drainage holes (or lack thereof) are appropriate for your plant.

4. Does your plant have a pH preference of acidic, alkaline, or neutral? Does it like a lot of fertilizer?

Soils in containers are relatively easy to amend- you can change them to whatever your plant prefers by adding soil amendments to help it grow.

5. Will your plant freeze in the winter or melt in the summer?

If your plant will require protection from the elements, plan ahead for its size, weight, and how you will protect it. If you plan to move it into the garage in the winter do you want to get a pot with wheels?

6. How often do you have time to water and care for your plant?

If you only have time to think about your plant once a week, consider a drought tolerant plant like a succulent, or native plant that tolerates abuse. Also consider using "moisture control" soils that don't dry out as fast. If your plants are your babies and the world revolves around their care, find some that will happily grow with your daily watering and attention.

7. Does your plant want sun or shade?

Placement is key. Shade loving plants won't generally grow in full sun and vice versa. Be sure you understand the placement of your container and how much light your plant will receive. Also, the sun isn't the same throughout the day. Mid-day to afternoon sun is a better fit for full-sun-loving plants and is much more intense than early morning sun which would be preferred by shade-loving-plants.