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NC STATE EXTENSION

Master Gardener | Johnston County

The Gardener's Dirt

Johnston County Center **September 2017**

Feature Article

BLESSINGS OF SCHOOL GARDENS

By Ester Garner, Extension Master Gardener Volunteer

I have been "gardening" with my students as long as I have been teaching and find it to be one of the most rewarding ways to teach students about life and living. School gardens are ways to get students outside, getting dirty, enjoying nature, improving their environment and reaping the fruits of their labor. Most school administrators welcome Master Gardeners to help their students learn these valuable life lessons. Grins of accomplishment shine on faces as crops are harvested after each season and as we enjoy meals made with our plants.

Life Skills Garden - Ready to plant

1 - A most important step is to meet with the principal and any teachers who would be involved with the gardening project. With school staff input, lay out plans for the best location for the garden. Proximity should be convenient for the gardeners.

2 - Meet with students, explain what they will be doing from planning to harvest. This is where the Extension and School Gardens' lessons should be presented by you and the teacher.

3 - Plan what will be in the garden (this will depend on age of students, how much space for

the garden, amount of time available for the garden and timing in the growing season). Good planning is a must and the handbooks extension provides are useful for this portion. If you will be doing seedlings, start early and place in sunny locations. We usually get our plants from the Community Garden in Clayton, my school agriculture department, and seedlings we sow ourselves.

4 - Involve and instruct the students as preparations are made for planting with the tasks of cleaning out weeds, tilling and adding amendments. School the students in the proper use of gardening tools and involve them in discussions of plant choice options to increase their understanding of the process.

5 - Time for planting. With gloves, plants and tools in hand we head out to plant. Demonstrate how to plant individual plants then turn it over to the kids, supervise and advise as they work. Be sure to take plenty of pictures from the preparation of the garden to the harvest. Chart, plant, weed, water, and keep out harmful insects by hand if possible. I do not use pesticides except soaps or non-toxic ones because we eat what we plant. We also have pollinator plants in and around our garden plots.

6 - Plan weekly, regular visits as the garden progresses, working with the teacher and schedules. The beginning of the season will require more visits because of planning, book work and demonstrations.

7 - Costs will vary depending on sponsors, school support, EMG support and size of the garden plots. I usually divide the costs up among all these so the amount is not too much for any of them.

We are very fortunate to have several school gardens in Johnston County. Gardens are going strong at South Johnston High, East Clayton Elementary, Four Oaks Elementary and others are hoping to have their own gardens.

SO PLAN - PLANT - PRODUCE - TAKE PICTURES

Jodi and Kevin planting flowers

Maria, Angela and Ester setting out broccoli

Adding some plant food

Grow Native

The Largest Edible Fruit Tree Native to North America

Debbie Allison, Extension Master Gardener Volunteer

Pawpaw trees are the largest edible fruit trees native to North America. You rarely find them in stores, because of their short shelf life. Recipes for this rare fruit include breads, puddings and even beer! Seedlings can be purchased at

several locations within 40 miles but you'll have to seek them out, the big box stores won't have them.

Asimina triloba probably got its nick name of "pawpaw" as early explorers thought they looked similar to papaya fruit, but it is only a slight resemblance.

Photo Courtesy of Chatham County Center

These native trees like shade the first few years then sunlight is needed for flowers and eventually fruit. The flower is not very pretty and in fact has a bad odor - which is why mostly they are pollinated by flies. Native Americans hung a dead fish in the tree to encourage pollination.

The fruit is greenish pale, oblong, and usually three to six inches long. The flesh is almost tropical; a mango-citrus-banana flavor that will keep you coming back for more. Plenty of exotic dessert recipes exist on the internet, but also breads and other savory recipes, while the yeasty paw paw beer sounds the most inviting!

The pawpaw tree is host to the zebra swallowtail butterfly (Protographium Marcellus), which has wing spans up to 4 inches. This black and white butterfly can be seen from February to December in our southern part of the country. The caterpillars lay their round green eggs singly on pawpaw leaves or tree trunks.

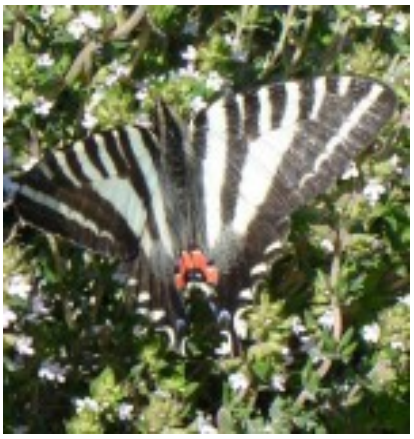

Photo Courtesy of Shawn Banks

So whether you seek them out in the forests while hiking or care to plant some seedlings - the pawpaw tree provides a unique native fruit that is both exotic and tasty. The North Carolina Paw Paw Festival is September 9th - find information on Facebook at "NC Pawpaw Festival".

Good or Bad?

Good Garden Spiders

Tiffany Whichard, Extension Master Gardener Volunteer

Honestly, I think spiders get a bad rap. Having been a child that cherished reading the book Charlotte's Web, I've always felt endeared to these eight-legged wonders. Admittedly, there are a few poisonous kinds (Black Widow and Brown Recluse, among them), but the vast majority of North Carolina spiders are relatively harmless. Understanding this fact and knowing the crucial role they play in controlling plant-damaging pests in our yards, I fail to understand the irrational fear many folks have about them.

To give you an example, one of my absolute favorites is the common Black and Yellow Garden Spider (Argiope

aurantia). Sometimes characterized as a 'gentle giant', the

Photo Courtesy of Chatham County Center

females are large and striking, weaving enormous, gilded webs with an ever present thick band of silk zigzag through the center. You'll most often find them in gardens and orchards or along forest edges.

Another personal favorite of mine is the Green Lynx (Peucetia viridans). They are a beautiful translucent jade color. The females sport a distinctive repeating chevron pattern on their bodies. Unlike other spiders, this one is content to sit in bushes, patiently waiting for an unsuspecting meal to amble by.

Photo Courtesy of NC State University

Spiders as a general rule, will eat whatever pests are available. Crazily enough, they are said to surpass even birds for insect consumption. And they certainly don't discriminate. They'll happily make a meal of aphids, flies, leafhoppers, mosquitoes, wasps and more. For those of us that spend a lot of time in our yards, a large spider presence can cut down on the need for insect repellents and help to insure that we have little need for caustic chemicals.

Much like the beloved Charlotte in E.B. White's classic tale, know that most of these creatures are innocuous, intent only on helping.

Quick Tip:

Compost Bin or Crock

Silvia Caracciolo, Extension Master Gardener Volunteer

I have a small ceramic crock by my kitchen sink that I use to collect kitchen scraps for compost. I toss the tidbits in there until I need to go to the garden composter. Visiting another gardener recently, I watched as she easily pulled out the contents of her kitchen compost crock using a coffee pot filter! What a great idea! Line your kitchen compost crock with a coffee filter for quick clean-up and the filter will work just fine added to the compost.

Photo Courtesy of Pixabay

Ask An Expert

Prevent Large Patch Disease

Marshall Warren, Extension Horticulture Agent

Photo Courtesy of NCSU

Photo Courtesy of NCSU

Many years ago, I had a favorite t-shirt that was printed with these words:***"Intelligent people solve problems, geniuses prevent them"***. I think of myself as intelligent and every once in a while, I have a genius moment or idea. That old t-shirt describes what I aspire to do as a horticulture extension agent: Help people solve their problems and strive to prevent them. Throughout the day, I get calls or someone brings in a plant sample to my office to diagnose their problem, and many times their problem could have been adverted if they followed certain steps many months or seasons in advance to prevent it from happening. The genius part about Cooperative Extension, is that we (the agents) try to be "geniuses" by providing educational programs, research-based information, and alerts, informing you before a problem arises. A wise person heeds and applies good information. I can think of many horticultural topics where this principle can apply and perhaps I should start a series on preventative measures, but for this one article I will focus on preventing Large Patch Disease on your warm season lawn. If you have experienced this problem in the past, and would like to not have this problem again next year, you should pay close attention; and if you have never experienced Large Patch Disease, you can learn how to be a "genius" and prevent it!

Large Patch Disease, caused by the fungus *Rhizoctonia solani*, begins to develop when soil temperatures decline to 70°F in the fall, but the symptoms do not necessarily appear at this time. As your warm-season turf grass begins to green-up in the spring, affected areas do not green up like the surrounding grass. Symptoms of Large Patch often become evident as one or more circular, light green patches that vary in diameter from 2 inches to about 2 feet. These will usually start where diseased patches have grown in previous years. Such as in low areas, or in areas where dew and moisture presence is increased. The patches grow from the center outward and may spread rapidly or slowly, depending on moisture and temperature conditions. Patches grow as long as conditions are favorable and may spread out 20 feet or more. In the centers of some large patches, a greening recovery may be seen. Evidence of this damage may persist throughout most of the year.

Centipedegrass is most susceptible to large patch, followed by zoysiagrass, and then St. Augustinegrass. Bermudagrass, rarely affected by large patch, recovers very quickly when the disease does occur.

<u>Cultural control</u>

Poor lawn practices such as excessive nitrogen in the fall and early spring, poor soil drainage, compaction, over-irrigation, excessive thatch accumulations, and low mowing heights all contribute

to the development and spread of large patch disease. So, the best way to prevent large patch is to follow good lawn care practices. As mentioned in last month's newsletter, if you haven't done so already, get a soil test and correct any soil nutrient and pH deficiencies.

Do not apply nitrogen to warm-season grasses in the fall and spring. These grasses are growing slowly during this time and do not require a significant amount of this nutrient. Also, remember that recovery will be even slower and tougher if you apply a root pruning herbicide as your pre-emergence to control winter and summer weeds; these include many of the pre-emergent herbicides found in crab grass preventers and weed and feed products. In general, nitrogen should not be applied to the warm-season grasses within 6 weeks before dormancy in the fall or within 3 weeks after green-up begins in the spring. Warm-season grasses vary in their fertility and management requirements, so refer to website, http://www.turffiles.ncsu.edu/turfgrasses, for specific recommendations on timing and rates.

Avoid establishing warm-season grasses in low lying areas that remain saturated for extended periods of time from surface runoff. If this is unavoidable, install subsurface drainage to remove excess water from the soil. Irrigate only as needed to prevent severe drought stress in the fall and spring. Control traffic patterns to prevent severe compaction, and aerify as needed to maintain soil drainage and aeration. Mow at recommended heights, and power rake or vertical mow as needed to control thatch accumulations.

Chemical Control

Fungicides are available for large patch control, but must be applied on a preventative basis. Applications should be initiated in the fall when soil temperatures decline to 70°F for 5 or more consecutive days, regardless of when symptoms have appeared in the past. One or two well-timed applications provide season-long control of large patch in many situations. In severely affected sites, repeat applications should be made on 4 to 6 week intervals as long as soil temperatures are between 50°F and 70°F. Fungicides are **not** very effective in the spring once the symptoms of large patch appear. Curative applications will help to reduce further spread of the disease, but the affected turf will be very slow to recover. Mapping of the affected areas in the spring for spot-treatment in the fall can substantially reduce fungicide expenditures.

For more information on large patch and preventative fungicide programs, please visit the following link: http://www.turffiles.ncsu.edu/Diseases/Large-Patch

Monthly Garden Tasks

September Garden Tasks

Photo Courtesy of Pixabay

General Ideas

- Collect soil samples for testing, so that you'll know how much fertilizer and lime to add this fall. Test your lawn, flower beds and vegetable garden. Testing should be done once every 2-3 years.
- Clean up and throw away any diseased plant material. Do not throw it in a compost pile. Leaving infected plant material on the plants or where it fell on the ground provides a source of reinfection for next year.
- Prepare plants for dormancy. Plants need time in the fall to slow down and prepare for the winter, so do not apply nitrogen (N) fertilizer or prune after July. Consider applying potassium (K) fertilizers, which increase winter hardiness.
- Divide spring and summer blooming perennials that are overgrown, such as daisies, daylilies, creeping phlox. This is an easy way to enlarge your garden without purchasing more plants. Dig the plants, gently separate into smaller clumps and replant immediately. They'll have plenty of time to get re-established before next spring.
- Set out cool weather annuals for winter color. In addition to pansies and ornamental cabbages, other cool weather ornamentals such as dianthus, snapdragons, dusty miller, and ornamental sage look great throughout the winter. Wait to plant spring bulbs till chillier fall weather arrives.
- Start fall vegetables such as lettuce, spinach, collards, and cole crops.

Lawn Care

- Check out the Lawn Maintenance Calendar for your grass and learn how best to care for it. http://www.turffiles.ncsu.edu/turfgrasses
- Quick Tip for fertilizing cool season fescue lawns: Fertilize on Labor Day, Thanksgiving and Valentine's. Fescue lawns are green and growing during the cool months of fall, winter, and spring. Use a slow-release fertilizer.
- Plant fescue seed to fill in bare spots or rejuvenate your lawn. The best time to plant fescue seed is September 15 - October 15. Contact us for a publication on lawn care and renovation and get your soil samples in!!
- Overseed common bermuda lawns with ryegrass in late September if you want to keep your lawn green all year.
- Control winter weeds with a pre-emergent herbicide applied around mid-September on lawn and shrub plantings.

Landscape Ideas

- Think ahead to next fall and consider plants that will provide autumn color. Trees such as ginkgo, Japanese maple, sourwood, crape myrtle and tulip poplar have outstanding autumn

foliage color.

- The flowers of Sasanqua camellias and autumn-flowering chrysanthemums contribute much to the colorful autumn scene.
- Don't forget the brilliant red foliage of rabbiteye blueberries. The berries of pyracantha, nandina, viburnum, beautyberry and many hollies provide bright accents into winter. Look for interesting plants in the nurseries and plant them this fall.

Cool Connections

NC Extension Gardener Manual

Past Issues of Gardeners Dirt

NCSU Publication Links

NC Extension Gardening Portal

NC Extension Plant Database

Going Native (Selecting and Planting Native Plants)

NCSU Pruning Trees and Shrubs

Cooperative Extension Search

Photo Courtesy of Pixabay

Upcoming Events

Bee Hotel and Choice Plants Garden Mini Seminar

Sept 19th 6:00PM - 7:00PM

Located behind the auditorium at the
Johnston County Ag Center, 2736 NC 210 Hwy. Smithfield, NC 27577

Learn about native bees and their role as pollinators, and how to establish a pollinator garden for them.

Also there will be a tour of the "Choice Plants" garden.In a collaborative effort by the Johnston County Nursery Association and the JC Raulston Arboretum, Choice Plants are produced as superior selections of new and underused plants for the Southeast and Mid-Atlantic from the JC Raulston Arboretum landscape trials.

Certified Plant Professional Training Course

A series of 7 cumulative classes to prepare for the **October 26, 2017 Certified Plant Professional (CPP) Exam in Wilson, NC will start on September 7. Registration deadline is August 18**. See flyer for more information and registration at: https://www.ces.ncsu.edu/2017-wilson-cpp-training-course-2/. To learn more about the CPP program visit: http://www.ncnla.com

NEWSLETTER EDITED BY: Silvia Caracciolo, Katie Maynard, and Marshall Warren

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For accommodations for persons with disabilities, contact Bryant Spivey at (919) 989-5380, no later than five business days before the event.

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Home Horticulture in Johnston County, NC

Johnston County NC Extension Master Gardener Volunteers