Hoke County Gardening News

September 2016

Inside This Issue

Contact Us

NC Cooperative Extension
Hoke County Center
116 W. Prospect Avenue
Raeford, NC 28376
Phone: 910-875-3461
Fax: 910-875-9044
hoke.ces.ncsu.edu

Shannon R Newton

Shannon Newton
Area Extension Agent, Horticulture
shannon_newton@ncsu.edu

Welcome to Gardening News

Right Plant, Right Place

Over the next several months, a series of articles will focus on choosing plants for your garden landscape. The first in the series is about Plant Nomenclature. Hope you find this helpful!

It's all in a Name!

When choosing a plant, it is important to understand it's growth habit. The scientific name of a plant can help you know what plant it is and how it will grow.

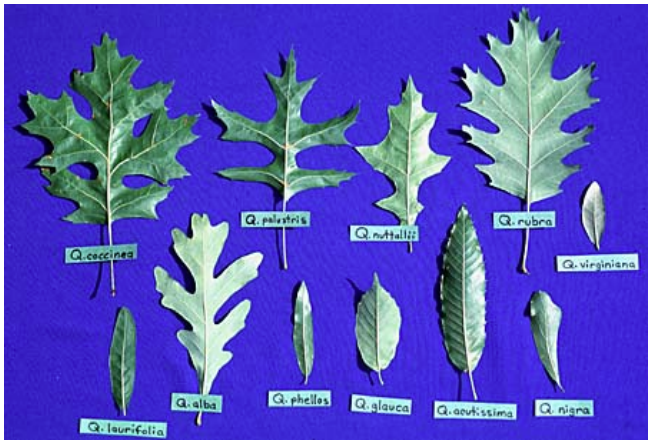
Common Name of the Plant: The name people often call a plant. What you call it, or your friend calls it, may be different, which can lead to confusion.

An example of how common names can be confusing starts with our commonly known vegetable, Corn (*Zea mays*) is also called maize. But in England, corn refers to wheat and, in Scotland, rye or barley (herbarium.usu.edu.).

To understand how scientific names work and why they are important to plant selection, let's look at one of our most commonly known plants, the oak tree.

In the case of an oak tree, some grow to 135 feet (*Quercus marcocarpa*) while others grow to 30 feet (*Quercas acuta*). Some are deciduous, while others are marcescent. (Marcescent is a plant whose leaves die in cold weather, but the leaves do not fall off until spring when new leaves emerge.) All oaks have acorns.

NC State University A&T State University COOPERATIVE EXTENSION
Empowering People · Providing Solution



Scientific or Botanical Name of the Plant: A name used by scientists, especially the taxonomic name of an organism that consists of the genus and species. Scientific names usually come from Latin or Greek. An example is Homo sapiens, the scientific name for humans. (Source: dictionary.com)

Genus:

The first word in a scientific name is the genus of the plant. This is a broad grouping of all plants that have similar characteristics. As you can see from the picture of oak leaves, *Quercus* is the genus and is the same for all oaks.

Species:

The second word in a scientific name is the species of the plant. Species are a set of plants in which the members have similar characteristics to each other and can breed with each other. Within the genus *Quercus*, there are 600 extant species of oaks world-wide. It is helpful to know the species in order to define specifics about plant growth.

Variations among Genus

In the genus *Quercus,* let's look at 2 different species to see how the genus and species provide information on size, flowering, growing requirements, growth rate and other important information

Even if you don't know the scientific name of a plant, you can look it up on the following link: https://plants.ces.ncsu.edu/

Quercus viginiana:

Height: 30-50'
Width: 50-80'
Shallow spreading roots
Fruit: 0.7 to 1" acorn, 1 to 5 on stalk
Will grow in zones 7b to 10
Leaves: 1.3 to 3 in. alternate, simple, leathery leaves
Form: Massive, wide spreading
Growth rate: slow to moderate

Quercus robur 'Fastigiata':

Height: 50-60'
Width: 10-15'
Susceptible to powdery mildew.
Fruit: 1" acorn
Will grow in zones 5-8
Leaves: 2.5 to 5 in. alternate, simple deep green almost bluish leaves; non-showy fall color; leaves persist into winter
Form: Narrow fastigiate form
Growth rate: slow

By using a plants genus and species, you can take the first step in choosing the right plant for the right place in your home landscape.

Next in our series, “Right Plant, Right Place”, Know your zone.

Organic and Sustainable Gardening

Last month we talked about Insecticidal Soaps, Horticultural Oils and Botanical Insecticides for less toxic options to control insects. This month essential oils are covered, with beneficial insects, microbial insecticides and minerals to follow in future issues.

Essential Oils are concentrated substances extracted from plant parts. EPA has approved these oils to be marketed as insecticides. Generally, essential oils are contact insecticides, repeat applications may be needed as new insects emerge or move into your plant material. Common essential oils are oils of cedar, cinnamon, citronella, citrus, clove, eugenol (component of clove oil), garlic, mints, rosemary and several others. Essential oils kill insects by disrupting their neurotransmitters that are not present in people, pets or other vertebrates.

In 1993, the Environmental Protection Agency (EPA) provided this brief history and availability of essential oils:

Oil of lemongrass was first registered in 1962 as a dog repellant. In 1993, there were two products registered which contain this active ingredient; both were formulated as pellets and used to repel cats and dogs from ornamentals, shade trees, patio furniture and garbage cans.

Oil of eucalyptus was first registered in 1948 as an insecticide and miticide. In 1993, only one product (an herbal flea collar for pets) was registered which contains oil of eucalyptus.

Oil of mustard (allyl isothiocyanate) was first registered in 1962 as a dog repellant. Five products were registered in 1993; four are used outdoors either to repel cats and dogs from lawns, flowers, bushes, shade trees and refuse containers; or to kill insects. The fifth product was used indoors in a carpet freshener to repel pets. Products are formulated as liquids or pellets/tablets.

Soybean oil was first registered in 1959 for use as an insecticide and miticide. Three products were registered in 1993. They were emulsifiable concentrate formulations used to control insects and mites on citrus fruits and a variety of ornamentals.

Oil of anise was first registered in 1952 for use as an insecticide and miticide. Only one product was registered in 1993, a liquid spray used on soil near lawns, gardens and flower beds to repel cats and dogs.

Source: EPA-738-F-93-027

Although we are in more modern times, essential oils can play an important role in providing insect control while protecting the environment. Carefully choose insecticides which control your specific insect or insects. Always read and follow all label directions.

Crape myrtle bark scale: New tree pest has arrived in NC

Adapted from ECOIPM Blog written by Steve Frank, Associate Professor, N.C. State University, Department of Entomology

A couple years ago, Steve Frank, Associate Professor, N.C. State University, Department of Entomology, began warning about a new pest that was spreading throughout crape myrtle country. Now, the crape myrtle bark scale has arrived. From the severity of the infestation it looks like it actually arrived many years ago but now it is "official." This is bad news because crape myrtles are one of our most commonly planted trees in yards and along streets. Crape myrtles are typically almost maintenance free (unless you top them) but now they will require pest management to stay healthy and beautiful.

Crape myrtle bark scale. SD Frank

Female scales produce fluffy white filaments that cover their body. In spring they produce eggs beneath their body then die. Tiny crawlers hatch from the eggs, settle in their new spot, and begin producing white filaments. They have at least 2 overlapping generations. At low density, crape myrtle bark scale feeds in rough areas around branch collars but as the population increases all the bark may be covered. These scales are most often noticed because trees become covered in black sooty mold. At first many people assume this is from crape myrtle aphids so the scales may go undetected. If you notice unusually heavy honeydew and sooty mold on crape myrtles take a closer look at the bark.

Crape myrtle bark scale is a felt scale related to azalea bark scale and oak eriococcin scale. They feed on phloem like other "soft scales", thus the honeydew. Even though there is not a lot of efficacy data available, drench applications of neonicotinoids are typically effective against phloem feeders. However, since crape myrtles flower continually and attract a slew of pollinators be sure to read the labels for restrictions on using them. Insect growth regulators such as pyriproxyfen and buprofezin are effective for many other scales and may be a good option. Horticultural oil, especially the heavier dormant rate, can reduce scale abundance also.

There are many subdivisions and streets in North Carolina lined with crape myrtles. Inspect these trees to determine when they become infested. Also consider diversifying the tree planting of your neighborhood. Luckily, this pest does not kill trees outright like some other exotic pests. Increasing tree diversity helps ensure all the trees are not infested or killed at once by a single pest.

Crape myrtle scale on a rough branch collar. SD Frank

When do I plant spring flowering bulbs?

Written by: Danny Lauderdale, Area Specialized Agent, Nursery and Greenhouse, Eastern Region

Fall planted spring flowering bulbs are some of the toughest plants around. They have stored energy in the bulb to produce the root system, then foliage, and flowers for the spring. With the right site selection, planting, fertility, and a little water to get them started at planting, they will not disappoint in the spring.

The major bulbs planted in fall for spring color are tulips, hyacinths, and daffodils. Remember that most tulips (excluding the species tulips) give a grand show the first year, but may not flower again. If they do the show is not dramatic. Many gardeners choose to treat hybrid tulips as annuals in the garden or plant species tulips that flower repeatedly. Spring bulb flowering season is from mid-February to mid-May, depending on local weather conditions. Height ranges from 6 inches to 3 feet. Colors vary widely.

Specialty bulbs planted include allium, camassia, chionodoxa, crocus, galanthus, fritillaria, and scillas. Their flowering season is from mid-February to early July. Height ranges from 3 inches to 4 feet. Colors vary depending on species. This is just the tip of the iceberg, or bulb I should say. Looking through some bulb catalogues and online you will find numerous choices of fall planted bulbs. Some examples are anemone, arum, babiana, iris, cyclamen, galanthus, ipheon, ixia, ixiolirion, leucojum, peony, ranunculus, squill and windflower. Wow! I don't even know what all of these are without looking up information about them.

The best time to purchase spring flowering bulbs is in the fall. Purchasing should be done based on bulb firmness. The size and number of flowers is directly related to the bulb size. Small nicks and loose skin do not affect bulb development. Bulbs should be stored in a cool place (50 to 65 degrees) before planting.

Good drainage is important for spring flowering bulbs. In poorly drained areas it may be necessary to plant on a raised bed. In extremely sandy soils, organic amendments are often needed to increase water and nutrient holding capacity. Soil pH is also important when dealing with bulbs. Soil pH in the planting area should be between 6 and 7. Remember to soil test before planting and every 2 to 3 years.

Spring flowering bulbs can be used in beds, borders, for ground covers, rock gardens, and wooded areas. Most of the spring flowering bulbs do best in areas that receive full sun to partial shade. In eastern North Carolina, November to early December is the best time to plant spring flowering bulbs. Planting this time of year allows the bulbs to form strong root systems and satisfy cold requirements.

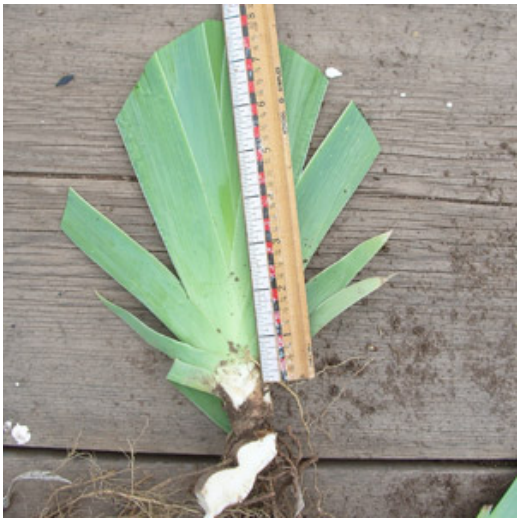
Small bulbs (1 inch in height) should be planted five inches deep. Large bulbs (2 or more inches) should be planted eight inches deep. These planting depths protect the bulbs from frost, animals, and physical damage. Unlike planting shrubs or trees, the area under the bulbs should be loosened. Large bulbs should be 3 to 6 inches apart and small bulbs 1 to 2 inches apart. Dig, till, or loosen the soil to a depth of 8 to 10 inches. One of the best ways to do this is loosen the top 4 to 6 inches of soil then turn in 4 inches of compost or finely ground pine bark soil conditioner. Next you should plant at the recommended depth and water in. Cover the bed with 2 to 3 inches of mulch. Water as needed if it is dry after planting. With cool temperatures, watering should only be needed every two to three weeks without rainfall.

What about fertilizer? Newly planted bulbs have better quality than older bulbs. Fertilization will encourage bulbs to flower for several years before replacing or dividing. There are two ways to fertilize spring flowering bulbs. The first system uses a slow release fertilizer like 12-4-8, 12-6-6, or 16-4-8 with a single application in the fall. Use one tablespoon per square foot. The second system uses bone meal in the fall and either 12-4-8, 12-6-6, or 16-4-8 (one tablespoon per square foot) applied when the new foliage emerges from the ground. After flower petals fade in the spring, remove flowers with scissors or snips. Foliage should be allowed to die naturally. To liven up the area after bulbs fade, plant the area with summer annuals. Another way to mask the fading foliage of spring bulbs is to interplant with daylilies. After the bulbs have bloomed, daylilies begin to grow their lush green, grass-like foliage that masks the tattered looking bulb foliage. This would work with any fast growing spring emerging perennial.

September Gardening Chores

Fall Vegetable Gardens: September and October are great times to plant a fall vegetable garden. For complete information on planting dates follow the link below. The publication includes whether to plant from seed or plants, spacing requirements and how many days to harvest. As always, take a soil sample to ensure you have proper soil nutrients for your garden.

http://pender.ces.ncsu.edu/files/library/71/VegPlantingGuide.pdf



Iris: Divide iris in early September. Iris clumps will need to be divided after about 4 years of growth, or they will stop blooming. Incorporate a low nitrogen, high phosphorus fertilizer to encourage root growth. Be sure to plant the iris rhizome so that it is slightly exposed. Trim the leaves to 8" to 12" to ensure a good root-leaf balance. Water thoroughly after planting. Keep moist until well established. Be sure to let the soil dry out between waterings. Iris require about a half day of sun and will do well in full sun.

Fall Annuals: Now is the time to start thinking about planting fall annuals. This can be in containers or in your flower beds. First to come will be Chrysanthemums. Managed correctly, they can be a perennial in your flower bed. Watch at your local garden center or hardware store for pansies, snapdragons, ornamental kale and cabbage and other fall plants. These plants can grow all winter and provide color when everything else has gone dormant.

Plant of the Month:
Muhlenbergia capillaris, *Mule Grass or Muhly Grass*

Fall starts, Thursday September 22nd. Begin looking for the first signs of color on *Muhlenbergia*. This unique ornamental grass creates a spectacular, billowy inflorescence of massed, vibrant pink, airy flowers on 4-foot stems. It is noted for its tolerance to poorly drained soil and is possibly hardy to Zone 6 with protection. Plant individually or in groups. Plant thrives in full sun or part shade and is deer tolerant. Visit www.plants.ces.ncus.edu for complete information on *Muhlenbergia* and other plants that grow in North Carolina.

Name this weed……

This weed is a small plant with leaves like a mimosa. *Phyllanthus urinaria or* Chamber Bitter is native to tropical East Africa. It can be found in most landscapes in North Carolina and throughout the southeast. It grows in turf, shrub beds and most anywhere. The best method of control is mechanical, pulling by hand. Do not put into your compost pile, as the seeds may still be able to germinate. Below is a link is for an article from Clemson University on Chamber Bitter and it's control. Its a weed that is here to stay, so learn to identify it and manage it in your home landscape. http://www.clemson.edu/extension/hgic/pests/pdf/hgic2314.pdf

ABC....XYZ Gardening Vernacular

In this section of the newsletter, we will focus on a gardening 'word of the month' from the letter a to z.

A is for Alleopathic!

Plant allelopathy is all around us, but many people have never heard of this interesting plant characteristic. Generally speaking, allelopathy is a biological phenomenon where one plant inhibits the growth of another. The reason plants are alleopathic is to protect and maximize their growing area. Some farmers plant rye not only for the grain they can harvest, but because it inhibits weed growth. The alleopathic properties are residual in the soil, and in this case not only inhibit weeds but also inhibit field corn growth. Knowledge about plant characteristics will help you plan for planting and future plant growth. Specific examples of alleopathic plants you may be familiar with are black walnut, eucalyptus, goldenrod, rhododendron and azaleas.

We hope you find this newsletter informative and fun.

Send questions, comments or suggestions for articles to shannon_newton@ncsu.edu