

YOUR NORTH FLORIDA YARD & GARDEN

Flagler County Extension Service & UF/IFAS Florida Master Gardeners



ISSUE XXVII
October - December 2009



In the News

Inside this Issue:

THE GOOD CONFEDERATE ROSE	2
The Bad Kudzu	3
The Bugglys Zebra Longwing	4
Herbs & Recipes <i>Cool Season Herbs for Florida</i>	5
All About Trees Misperceptions About Trees	6
Monthly Calendar October - December	9
New in the Garden Blue Roses	12
MG Spotlight <i>Florida Ag Museum Garden</i>	13
Know Your Days Latest on Current Water Restrictions	14
Upcoming Events	16

Florida Friendly Landscaping and the Law

Senate Bill 2080 is a new law directed at local governments and homeowner associations to promote Florida Friendly Landscaping. By choosing plants appropriate for the site and maintaining them with correct cultural practices (irrigation, fertilization, mowing and pruning), one can significantly reduce not only the amount of water a landscape needs to thrive but also the chance of plant diseases and pests associated with overwatering.

This does not mean removing the lawn. The law does not invalidate architectural control committees or landscaping committees. It merely states that covenants, restrictions, and ordinances may not prohibit Florida Friendly Landscaping practices. It applies reasonable limits on the committees and prohibits mandates that require: water wasting practices such as overwatering of plants or inappropriate site design; inappropriate placement of plants such that regular irrigation is required to keep the plants healthy or prohibitions on attractive, well suited plants in the landscape in favor of other plants that are less well suited to the site (wrong plant, wrong place); excessive or improper fertilization; and excessive use of pesticides.

Any watering mandates that are in violation of Water Management District water use restrictions are also prohibited. Reasonable and appropriate use of mulch; plants attractive to wildlife (such as butterfly or hummingbird gardens or other non-nuisance wildlife); swales, rain gardens, waterfront buffers or other protective practices; composting bins or rain barrels cannot be forbidden. However, reasonable limits such as being well maintained or locating to a backyard, side area or behind screening where feasible may be stated.

The Florida Friendly Landscaping web site is at <http://fyn.ifas.ufl.edu>. Model Florida-Friendly Covenants are available from DEP at <http://www.dep.state.fl.us>.

Senate Bill 494 is a second bill promoting Florida Friendly Landscaping guidelines. It requires that all commercial fertilizer applicators have a Florida Department of Agriculture and Consumer Services (FDACS) license by January 1, 2014. Passing the Best Management Practices (BMP) training or an approved equivalent is mandatory to obtain that license. The Florida Friendly Landscaping model ordinance requires all who apply fertilizer professionally to successfully complete the BMP training. However, only those who apply fertilizers commercially, that is, for hire, to property not owned by themselves, their firm, or their employer, need to have the FDACS certificate. All scheduled training is listed on the official website at <http://fyn.ifas.ufl.edu>.

Compiled by Julia Wilson, UF/IFAS Florida Master Gardener

The Foundation for The Gator Nation
An Equal Opportunity Institution

Sharon A. Treen

Sharon A. Treen, County Extension
Director and Family & Consumer
Sciences Agent

The Good...

by Julia Wilson, UF/IFAS Florida Master Gardener

THE CONFEDERATE ROSE

This time of year we are stopped by the sight of beautiful blooms of white, light pink and dark pink on a large shrub or small tree in the landscape. This is the Confederate Rose. In late summer the flower buds appear atop each stem. The buds open into large, showy flowers three to five inches across. They open white and fade to deep pink over one day. White, light pink and dark pink flowers can be found at the same time on this showy bloomer. Most plants have double flowers, the Flora Plena form. They bloom starting in the spring but the big show is in the fall.

The common name can be misleading. This plant hails from China and it is in the hibiscus family, called *Hibiscus mutabilis*. It is an old fashioned garden plant of the southern U.S. It was planted widely in 19th century American gardens. Perhaps the common name relates to the plant's use in the South and the resemblance of its flowers to old fashioned garden roses. Southerners used it to decorate cemeteries after the Civil War.

The Confederate rose is a hardy hibiscus, an overlooked group of perennials with tremendous potential for the landscape. They are much more cold hardy, vigorous and long lasting and they have larger flowers than their tropical counterparts. Hardy hibiscus prefer full sun or partial shade and any soil that is not too dry. The Confederate rose makes a large shrub or small, multi trunk tree up to 15 feet tall and 10 feet wide. Freezing weather may kill the above ground parts of the plant; however the roots will generate new stem and leaves in the spring. The leaves are large and coarse. They look more like cotton or okra to which it is closely related than like the standard hibiscus. It has been called cotton rose because after flowering the round hairy capsule form which dries and releases fuzzy seeds resembles the boll of that famous member of the hibiscus family.



Propagation is easy. Start new plants from seed in the spring or root cuttings during spring, summer and early fall. Cuttings can be rooted in a conventional propagation bed or even in a glass of water.

One problem with this plant is that it is a favorite host for whiteflies that cause the leaves to yellow and drop. The insect activity can also cause black sooty mold. Control as needed with horticultural oil spray.

The size and shape as a tree or shrub can be controlled by pruning. The blooms develop on new growth. Most plants need rejuvenation pruning in February or March after the threat of frost is over. Remove any cold damaged limbs back to healthy stem or to the ground. Also remove older limbs and reshape the plant as needed. A slow release fertilizer in the spring is all this shrub needs.

Enjoy the beauty of these blooms and consider this hardy hibiscus for the landscape. The above plant information is from the Solutions for Your Life website (www.solutionsforyourlife.com) operated by the University of Florida Institute of Food and Agricultural Sciences (IFAS).

THE BAD...

By: Audrey Tennant, UF/IFAS Florida Master Gardener

The Wolf in Sheep's Clothing

In 1876 what seemed to be a marvelous plant was introduced at the Centennial Exposition in Philadelphia, Pennsylvania. Countries from all over the world celebrated the United States' 100th birthday. In the beautiful garden designed by the Japanese government was a new plant with large leaves and sweet-smelling blooms. It captured the imagination of American gardeners. Thus Kudzu made its grand entrance into the American environment.

In the 1920s it was discovered that animals would graze on Kudzu and soon it was being promoted for forage. During the Great Depression of the 1930s, the Soil Conservation Service promoted Kudzu for erosion control. Hundreds of workers planted Kudzu through the Civilian Conservation Corps and in the 1940s, farmers earned up to eight dollars an acre to plant fields of the vines.



A blanket of Kudzu

BUT, a grave problem arose: Kudzu grew too well! The Southeastern U.S. is perfect for Kudzu where the vines grow as much as a foot per day during summer months, climbing trees, power poles, and anything else they contact. Under ideal conditions Kudzu vines can grow sixty feet each year. Kudzu now covers over seven million acres of the Deep South, covering buildings and parked vehicles over a period of years if no attempt is made to control its growth. Abandoned houses, vehicles and barns covered with Kudzu can be seen in Georgia, North Carolina, South Carolina and other southern states. Kudzu has been identified in Florida's panhandle area for some time now and more recently in North Central Florida areas including Flagler County's Princess Place Preserve.



Kudzu has a massive tap root: 7 inches or more in diameter, 6 feet or more in length, and weighing as much as 400 pounds with as many as thirty vines growing from a single root crown! It is a high-climbing, trailing, twining deciduous woody vine, with tuberous roots and rope-like, dark brown markedly hairy stems. Its leaves alternate and are long petioled with 3 dark green leaflets, hairy on both surfaces up to 5.4 inches long. Flowers are pea-like, reddish purple, fragrant, 0.7-0.9 in. across in short-stalked, elongated clusters at leaf axils. The fruit is a dark brown pod, flat but bulging with seeds, densely covered in long golden-brown hairs 3 in. long and 0.3 in. wide.



Kudzu has no natural enemies in the United States and eradication is hard work. It requires continuous monitoring and thoroughness when treating. The massive root system and crowns must be destroyed for long term control. Vines must be cut just above ground and destroyed. Close mowing monthly for two growing seasons and to prevent reestablishment, replanting with a non-invasive species after treatment is critical. Pre-burning, cutting, hand digging and disking will weaken the roots and aid in control when used in conjunction with herbicides. Prevent the production of viable seed and destroy the plant's ability to reproduce vegetatively.

Thus, the beautiful plant with sweet smelling flowers has become the "wolf in sheep's clothing"!

AND THE BUGGLYS...

Compiled by: Diane Cortés, UF/IFAS Florida
Master Gardener

Zebra Longwing (*Heliconius charitonia*)

Introduction

The zebra longwing, *Heliconius charitonia* (Linnaeus), was designated the state butterfly of Florida in 1996. A denizen of more forested settings, it frequents subtropical hammocks, forest margins, shrubby thickets, and adjacent open areas. It is a regular sight in many butterfly gardens and suburban yards and parks.

Distribution

The zebra longwing is a neotropical butterfly that occurs in extreme southern portions of the United States southward through Mexico, Central America and the West Indies to South America. Adults occasionally wander northward. It is locally common throughout peninsular Florida.



Zebra Longwing adult

Description

Adults: Zebra longwings are medium-sized butterflies with elongated wings. They cannot be confused with any other Florida butterfly. Adults have a wingspan range of 72 to 100 mm. The sexes are similar. The upper surface of the wings is black with several bold, narrow yellow stripes. The wings below have a similar pattern, but are paler in color and have several small red spots near the body.

Eggs: The yellow eggs are laid singly or in small clusters on new growth of the host plant.



Zebra Longwing larva

Larvae: The mature larvae are white with black spots numerous black branched spines.

Pupae: The pupae are brown and have two long flanges off the head.

Life Cycle

The zebra longwing produces multiple generations each year. Adults may be found in all months of the year throughout much of central and southern portions of Florida. Adults have slow, relaxed flight. Females lay the small yellow eggs singly or in small clusters on terminal leaves and tendrils of the host plants.

Adult zebra longwing butterflies feed on both flower nectar and pollen. The additional nutrients from the pollen enable individuals to survive for several months, far exceeding the normal two to four week adult life span of most other butterflies. Adult individuals often form small communal roosts at night.



Yellow Passionflower - David Smith

Hosts

Common hosts are purple passionflower (*Passiflora incarnate*), corkystem passionflower (*Passiflora suberosa*), yellow passionflower (*Passiflora lutea*) and several other passionflower vines.

source: http://www.entnemdept.ufl.edu/creatures/bfly/zebra_longwing.htm



Purple Passionflower

Herbs & Recipes

by: Honor O'Reilly, UF/IFAS Florida
Master Gardener

Cool Season Herbs for Florida

October is the perfect month to start planting the cool season herbs such as:

Arugula	Eruca vesicaria
Calendula	Calendula officinalis
Chives	Allium sp.
Dill	Anethum graveolens
Fennel	Foeniculum vulgare
Garlic	Allium sativum
Lavender	Lavendula sp.
Mint	Mentha sp.
Nasturtium	Tropaeolum majus
Oregano	Origenum sp.
Parsley	Petroselinum crispum
Rosemary	Rosmarinus officinalis
Sage	Salvia sp.
Thyme	Thymus sp.



Calendula flower -
University of Wisconsin

This is not a complete list, but the herbs most often used.

HOW TO GROW

Herbs grow well in a soil with a ph of 6.5 - 7. A soil's ph is the measure of it's acidity or alkalinity.

The ph scale ranges from 0 - 14. As ph numbers go down from 7 - 0 the soil becomes increasingly acidic. As the numbers increase from - 7 - 14 it becomes more alkaline.

It is better to raise the beds for your herbs to about 12".. Add composted organic matter to your soil, this will allow our sandy soil to retain moisture. Work in some aged sheep or horse manure, cotton seed meal and rotted leaves. Add a slow release fertilizer and rake it in. Your garden could be just be 4 feet wide so you would never have to step on it at all, making it easier to harvest and tend the plants from each side.

IRRIGATION

Use a soaker hose. The plants are then watered at the root level where the water is needed. Don't water from above as many herbs do not like water on their leaves or stems.

MULCH

After planting, put 2" of mulch on the herb garden. This will conserve water and discourage weeds. It will cool the ground in summer, and keep it warmer in winter. Keep mulch away from the stems.

RECIPE: HERBS DE PROVENCE

- 2 Tbs. Lavender flowers
- 2 Tbs. Thyme
- 2 tsp. Sage
- 1 Tbs. Marjoram
- 1 Tbs. Fennel leaves

Mix together, store in dark glass jars or keep in dark area.

All About Trees

By: Edward F. Gilman, PhD, Assistant Professor, Plant Environment, Environmental Horticulture Department, UF/IFAS

Dispelling Misperceptions About Trees

There are many misperceptions about trees and their care. Many have been passed from one generation to the next without critical evaluation. *Each of the statements below is true*. Each is discussed with regards to the most recent research findings.

INJURIES

Trees are very different from people. People and other animals are able to heal by replacing or regenerating injured tissue. A laceration on your finger quickly heals, so that several weeks later, the injured area is hardly noticeable. Trees are unable to replace injured tissues. Instead, they form boundaries around it which seal the area from the rest of the tree. The wood within the area which has been sealed off can no longer supply the rest of the tree with stored food. Additional injuries seal off more wood, which further reduces the supply of available food. The tree can slowly starve in this manner from repeated injuries.

ROOTS

Most trees do not have tap roots. In sandy, well-drained soils some trees such as oaks and pines develop deep roots directly beneath the trunk. These are commonly called tap roots. Many trees never develop tap roots. When the water table is close to the soil surface or when the soil is compacted, tap roots do not develop. Tap roots generally do not form on trees planted in our urban landscapes.

Roots grow far beyond the edge of the branches. Trees growing in the woods have root systems reaching well beyond the edge of the branches. Frequently, roots extend from the trunk as far as the tree is tall. Roots on trees and shrubs planted in a landscape grow to 3 times the branch spread within 2 or 3 years after planting.

Damaging roots on one side of a tree may cause branch dieback on that side only or at random throughout the crown. Roots on one side of trees such as oaks and mahogany generally supply the same side of the crown with water and nutrients absorbed through the roots. When roots on one side of a tree are injured, branches on that side often will drop leaves. On other trees such as the maples and rosewood, damage on one side of the root system may cause branch death anywhere in the crown of the tree.

Root pruning does not stimulate root branching all the way back to the trunk. Roots are often pruned before moving a tree in hopes of creating a denser root ball. However most root growth after root pruning occurs at the end of the root just behind the root pruning cut, not back toward the trunk. Therefore, dig the root ball of a recently root pruned tree several inches beyond the location of the root pruning. Root pruning should be conducted 6 to 10 weeks before moving the tree. Root pruning more than 10 weeks before moving the tree may reduce the advantages of pruning, because regenerated roots will quickly grow outside of the root ball.

Roots circling around a container do not continue to grow in a circle once the tree is planted in the landscape. Roots frequently circle within the perimeter of a container several times before the tree is planted into the landscape. The portion of the root which grew in the container does not straighten out, but new growth on this root will not continue to circle.

Most roots are in the top 3 inches of soil. The finer roots are concentrated in the top several inches of soil. Most tree roots are located within the top 3' of soil. However, because the majority of the fine roots are concentrated in the top several inches of soil, minor soil disturbances can injure or remove a large portion of the absorbing roots on a tree. This often happens in landscapes surrounding recently constructed buildings.

CONSTRUCTION

A small trunk wound inflicted by heavy equipment during construction or at any other time can cause major injury to the tree. Trees cannot replace injured tissue (heal) like animals, therefore injury permanently reduces the trees capacity to fight future stress caused by insects, disease or other factors. In addition, many roots are destroyed as heavy equipment operates over the root system. Even one pass over the root system with a bulldozer, earth scraper or other piece of heavy equipment can cause significant root damage. Do not allow equipment to operate within the dripline of trees which are to be saved.

To save a tree during construction, do not disturb soil beneath the branch dripline. Tree roots extend to 3 or more times the dripline of the tree. Approximately 50% of the root system is located outside of the dripline. No equipment should operate within this area if the tree is to be saved. Sturdy fences should be constructed at

the dripline to encourage enforcement of this guideline. This serves as the best guide to helping prevent construction related tree decline.

Grading to prepare a site for laying sod or planting shrubs can harm trees. Since many of the fine roots are located close to the soil surface, changing the soil grade by as little as 6 inches can cause extensive damage to the root system of existing trees. Design the landscape to largely fit the existing grade. If grade changes are necessary close to a tree, remove the tree and plant several younger, healthy trees.

Building a "tree well" around the trunk of a tree will not help save a tree from the effects of fill soil. Never remove soil from or add soil to the area within the dripline of a tree which is to be saved. Building a wall which is commonly called a "tree well" several feet from the trunk and adding more than 3 or 4 inches of soil to the area outside of the well will kill the tree. If a tree well is to be used, construct it no closer to the tree than the dripline and grade the soil outside of the well to prevent runoff water from entering the well. There have been reported cases of success using a system of gravel spread over the existing grade. Vertical vent pipes are installed every 10 inches to supply the roots with oxygen. Coarse textured fill soil is then carefully spread over a soil-separator fabric placed over the gravel.

If a tree survives the first 2-4 years following construction, it may still die from construction related injuries. Trees frequently decline after construction of a building. Often, branches begin dying within a year or two due to severe root damage. The tree may be dead within 3 or 4 years. However, it is not uncommon for trees to show a slow decline over a 5 to 15-year period. The tree may not show obvious signs of decline for many years, but, following a drought period branches may quickly lose leaves and begin a rapid decline. The tree may be dead a year or two later.

TREE TRUNK AND BRANCH STRUCTURE

A trunk with a crook in it is just as strong as a straight one. Trunks with slight doglegs, crooks or bends are not weaker than those which are straight. This is a normal development on many trees. Healthy trees will grow out of this condition and the trunk will appear straighter as it becomes larger in diameter.

Horizontal oriented branches are better attached to trees than upright branches. Upright branches are poorly attached to trunks. Horizontally oriented branches are usually well secured to trunks. A branch growing in an upright manner parallel to the trunk becomes a second trunk. The tree is said to have a "double leader." Double leaders are dangerous because they can easily split from the tree during a storm.

Topping a tree creates a dangerous tree. Topping is cutting branches or stems to random lengths. Trees should never be topped. Topping creates hazardous trees because the wood inside the cut branch begins to decay. The sprouts which grow in response to topping are not well secured to the topped branch and they can easily split from the tree as they grow larger. To avoid this, always prune a branch back to a living branch crotch. This technique is called drop crotching.

A tree with multiple leaders (trunks) will become hazardous to people and property as the tree grows larger. Never allow trees to grow with multiple upright leaders. These trees may look handsome when young but will become hazardous as they grow older. Always prune so that leaders or branches are spaced 18"-36" apart along the main trunk and be sure they form an angle of more than 40° with the trunk.

PRUNING

Trees do not heal, but they are capable of isolating injured tissue from healthy wood. Trees are not like people because they do not heal. They lose the storage capacity and function of injured tissue forever because cells cannot be replaced. In contrast, animals heal by replacing injured tissues. Plants must seal off the injured tissue from the healthy portion of the plant in order to stay alive. The swollen callus tissue developing around a trunk wound or pruning scar is closing over the injured tissue, not healing.

Never cut a branch flush with the trunk. That is, never make a flush cut. It has been standard practice to prune a branch flush with the trunk. Extensive research has shown that this practice injures the trunk and is extremely detrimental to tree health and shortens the life of trees. Flush cuts make a tree more susceptible to frost cracks, heat injury, root problems, cankers and sprouting. To avoid this, always cut to the outside of the branch collar which is located at the base of every branch. This collar is easily seen as a swelling where the branch meets the trunk. When pruning in this manner it may appear as though a stub is left on the trunk; however, properly done, this technique removes all of the branch and does not injure the trunk.

Rapid, thick callus growth around a pruned branch does not indicate the branch was pruned properly. The callus forming around a pruning scar often forms rapidly, regardless of the pruning technique. This tissue should form a ring or donut-shape if the branch was removed properly. If the callus is elongated or oval-shaped, the branch was pruned too close to the trunk. Despite rapid callus formation around a pruning cut or injury, extensive wood rot can develop inside the tree.

Wound dressings and pruning paints do not prevent wood rot. Wound dressings do not prevent wood decay behind a pruning cut. They provide no benefit to the tree. Some research indicates that wound dressings promote decay in certain situations. If pruning paints or wound dressings are to be used for cosmetic purposes, apply only a very thin coat. Only proper pruning practices prevent wood rot.

PLANTING

Plants should be planted no deeper in landscape soil than they were in the nursery. Trees and shrubs should be planted at the same depth or slightly shallower than they were in the nursery field soil or container medium. This allows for the quickest root growth which is crucial to tree and shrub establishment. Planting too deep slows root growth which can lead to poor establishment or death.

Transplanted trees do not benefit from amending the backfill soil. The soil removed from the planting hole should be used to fill in around the root ball. No amendments should be added to the backfill soil, since it does not improve survival or growth after planting. Apply 2-3 inches of mulch after transplanting around the base of each plant.

Trees should not be pruned at transplanting to compensate for root loss. Pruning the shoots and branches to compensate for root loss on field-grown trees is not recommended. The signal initiating root regeneration originates in the shoot tips. Pruning removes shoot tips and therefore reduces root regeneration. Begin corrective pruning 1 year after planting.

FERTILIZING

Established trees do not need to be fertilized in order to maintain their health. Established trees growing in a maintained landscape receive enough fertilizer for moderate growth because their root system grows into fertilized shrub beds and turf areas. In most instances, additional fertilizer is not necessary to maintain healthy trees. Some trees with micronutrient deficiencies respond to applications of minor elements.

Tree fertilizer does not need to be injected into the soil. Tree roots grow among turf and shrub roots. Most are located within the top 12" of soil. Fertilizer broadcast over the surface reaches tree, shrub and turf roots in adequate amounts.

Fertilizing in the fall generally does not stimulate growth in the fall. Many trees and shrubs will not respond to an application of fertilizer until the following year. Fall is an excellent time to fertilize trees and shrubs. Crape myrtle and some other plants may grow in the fall in response to fall fertilization.

Tree fertilizer is not tree food. Trees utilize the elements in fertilizer to produce glucose, proteins and other materials which might be considered food; i.e. they manufacture their own food. Fertilizers supply some of the elements necessary for plants to produce tree food, but fertilizer is not tree food.

Trees do not require 6 lbs. nitrogen/1000 ft²/year to maintain good growth. Established trees probably require much less than this to maintain good growth, particularly if lawn clippings and leaves are recycled back into the landscape. This high rate may promote rapid growth on young trees. Fertilize established plants with 2 lbs nitrogen/1000 ft²/year.

MISCELLANEOUS

Moss and bromeliads are native plants, and they do not kill trees. Trees are often weakened by root damage caused by soil disturbances such as construction related activities. Because these trees are under stress, they often lose many leaves allowing more light to penetrate the branches. This stimulates growth of moss and bromeliads. They grow fast because the tree is weakened, but are not the cause of poor tree growth.

October

We can start looking forward to cooler weather and shorter days. Sometime in October, we should see our first cool spell and with the cooler weather, we should see less rain.

If it does not rain, water every seven to ten days, putting down approximately three-fourths inch of water each time.

Do not use insecticides unless absolutely necessary. Many beneficial insects are active in the fall and if allowed to live will help reduce bug problems next spring.

Lawn

Do not fertilize after mid-October. If you missed the September fertilization, do not compensate by fertilizing late this month.

This is the last month before winter to put in sod or plugs (September is better). For new lawns, expect a longer time to get them established due to slower cool weather growth.

Reduce mowing due to slower growth. Remember, only a third of the grass blade should be cut at a time.

October is the month to over-seed with ryegrass for a green winter lawn.

Food Garden

Ornamental gourds are ready to harvest. Wait until dry on the vine to pick.

Plant the following vegetables this month: beets, broccoli, Brussel sprouts, cabbage, carrots, cauliflower, collards, endive, rutabaga, kohlrabi, mustard, onions, radish, kale, spinach, strawberries, Swiss chard, and turnips.

Fruit

Navel, Hamlin, and Parson Brown oranges should be checked for ripeness starting this month. They may still be green, but may still be ripe. Pick one and taste to determine ripeness. Do **not** wait until they turn yellow/orange to check for ripeness or they may be overripe. When the fruit is pithy and dry, the fruit has been left on the tree too long.

If you did not fertilize your citrus last month, then you can still do a final fertilization this month. Use a citrus or palm fertilizer with 2% or more magnesium.

Landscape

Clean up dead plants and leaves. Prepare for leaf drop from your deciduous trees and shrubs. They can be mulched or composted to recover their nutrients.

Apply up to 2 inches of mulch for winter flower and shrubs. Do not apply mulch against the stems or trunks of plants, trees or shrubs.

Annuals to plant are bachelor buttons, calendula, dianthus, delphinium, hollyhocks, foxglove, larkspur, ornamental cabbage, poppies, pansy, petunia, Shasta daisy, snapdragon, and sweet alyssums. Rotate your annuals to minimize buildup of insects that like a specific plant in one area. If you planted petunias last year, plant dianthus or pansy this year.

Other plantings for this month: agapanthus, moraea, amaryllis, Aztec lily, calla, daylilies, freesia, hurricane lily, narcissus, spider lily, walking iris, and zephyr lily.

If you missed fertilizing your palm trees last month, you can do a final application this month. Use a slow release palm or citrus fertilizer with 2% or more magnesium. Magnesium will give the palm a more lush, deeper green color. Check the label on the back of the bag to determine the amount present.

Poinsettia, Christmas cactus and kalanchoe, require uninterrupted periods of decreasing light to bloom. If you have them indoors, insure they have at least 12 hours of **complete** darkness each evening starting about 6 weeks before you wish to see blooms. Outside, ensure that they do not get unexpected light after it gets dark. If the dark period is interrupted, flowering will be delayed or not occur at all. **DON'T FORGET TO TAKE THEM OUT IN THE MORNING TO GET SUNLIGHT!**



November

General

If it does not rain, water every ten to fourteen days, putting down an inch of water each time.

Some potted plants such as episcias, lipstick vine, dieffenbachia, and Chinese evergreen can be injured by temperatures as low as 55 degrees. If you moved them outside during the summer, bring them back inside now. Check and treat plants for insects as needed prior to bringing them back inside.

Black widow spiders are full grown and active by this time of year. Be careful when reaching into dark areas in the garden or garage.

Lawns

Brown patch is common this month. If an area begins to yellow, spray with a fungicide. You need only spray the affected area.

If you over seeded with ryegrass last month, then apply a 16-4-8 fertilizer this month.



Swiss Chard 'Bright Lights' -
University of Pennsylvania

Vegetables

Any unused garden sections should be roto-tilled and allowed to sit idle during the winter months.

Early in the month you can plant parsley, sage, thyme, chives, and rosemary for fresh herbs for your recipes!

You can also plant: beets, broccoli, cabbage, collards, endive, kohlrabi, mustard, onions, radish, spinach, and Swiss chard.

If no soil test has been done in over two years, you should have one done at the Extension Office.

Fruit

Many varieties of citrus are ripe by this month, check routinely.

Garden

Prepare any trees and fully grown shrubs that you need to transplant by cutting a circle around the drip line with a shovel to trim the roots. Continue this process every other week until you actually transplant, usually late December through early February.



Amaryllis - *Univ. of Minnesota*

Do not prune most plants until the chance for freezing is over. It is usually safe in the beginning of March. Pruning encourages new growth that is more susceptible to freezing.

Annuals that can be planted are calendula, dianthus, delphinium, foxglove, larkspur, flowering cabbage, flowering kale, pansy, petunia, shasta daisy, verbena, violas, and snapdragon.

You can also plant: agapanthus, moraea, amaryllis, aztec lily, calla lily, daylily, hurricane lily, kaffir lily, walking iris, narcissus, and zephyr lily.

December

General

If it does not rain, water every ten to fourteen days, putting down three-fourths of an inch of water each time. Most grasses and plants are dormant and do not require much water.

If you have not had a soil tested in more than two years then you should have one done at the Extension Office.

Lawns

Apply Atrazine for weed control. Do it again in four to six weeks. Only use two applications every twelve months since Atrazine builds up in the soil. Some people like a December/January schedule; others prefer January/February. Atrazine is both a pre-emergent herbicide that hinders many weeds from germinating and a standard herbicide. When applied as a pre-emergent, it should be applied before the end of January, when the soil temperature rises above 68 degrees Fahrenheit. This is the time when weed seeds start to germinate.

Vegetables

Peppers, eggplant, strawberries, planted in September are ready to enjoy.

Crops that can be planted: broccoli, cabbage, carrots, cauliflower, celery, collards, kale, kohlrabi, leek, lettuce, mustard, onions, parsley, English peas and radish.



Strawberry - MATC

Fruit

Many orange, grapefruit, and tangerine varieties will be ripe this month; check their progress. If you have any doubts about being ripe, taste one piece of fruit before you pick the rest. Pick when the fruit when they taste ripe to you. Oranges and other citrus, can still be green and still be ripe. If the fruit is dry and stringy, the fruit is overripe.



Gardens

Any cold sensitive plants should be covered on nights when the temperature is expected to drop below 35 degrees. Be sure to uncover them the next morning so they will be exposed to the sunlight. If you have poinsettias in pots bring them in. Crotons are very sensitive to

Citrus - *John Hopkins Univ.* freezing temperatures and will usually die if not protected.

If we have a freeze, do not cut back the dead portions of the plant. The dead leaves and branches, insulate the lower branches and roots and protect them from further damage. Wait for the beginning of March to clean up the dead areas.

Annuals to plant this month include: carnations, digitalis, pansies, petunias, shasta daisies, and snapdragons.



Petunia - Colorado State



Pansy - Univ. of Arizona

Blue Roses

In the world of flower breeding, the color blue is the "Holy Grail" of flower colors. Many spend their lives searching for this elusive flower color, but few find the real thing.

I've purchased many flowers labeled as "blue" only to be disappointed when they bloom and look purple to my eyes no matter how much I squint or otherwise try to convince myself they really are blue. So I was doubtful when my husband called my office one day to tell me about a Japanese company that had developed the first true blue rose. He thought it would be a good addition to our Illini orange and blue garden. He insisted it really was blue-- well, sort of.

The blue color of the blue rose is provided by the pigment delphinidin, named for being originally isolated from Delphinium. For the delphinidin in the flower to appear blue, the environment inside the plants' cells must be acidic.

This "acid factor" is what makes blue such a rare find in the plant kingdom. Not only does a plant have to have the gene to make delphinidin in its flower cells, the plant must be able to maintain a level of acidity within the cell to make the pigment appear blue. Few plants can accomplish this.

Roses do not naturally produce delphinidin. Though some estimates say there have been over 25,000 rose varieties bred, they are all some shade of red, white, pink or yellow. Blue roses created by traditional hybridizing techniques are all more a shade of lilac than really blue. Until recently the only way to obtain a true blue rose was to dye or paint a white rose.

Creating a blue rose required the use of genetic engineering. The Japanese company Suntory began its quest for the blue rose in a joint venture with Australian biotechnology company Florigene in 1990. Since roses do not naturally possess the gene for delphinidin, genetic engineers needed to transfer the gene from another plant that had the gene.

Their first attempts were to move the delphinidin gene from petunia. They were not successful at using this version of the gene in the rose, but they were able to move the delphinidin gene from petunia into carnation. By 1997, the first blue carnations, sold under the variety name 'Moondust', were available.



Blue Rose - Suntory Ltd.

It wasn't until 2004 that Suntory unveiled the blue rose. Genetic engineers had finally found success using a delphinidin gene from pansy, along with genes from iris to produce the delphinidin pigment in roses. The resulting blue rose looks vaguely purple to most people-- a lot like the traditionally bred blue roses.

So were the 14 years of genetic engineering research a waste? Time will tell, but certainly the genetic engineers have set the stage for a true blue rose to be possible. The engineered roses not only have the delphinidin gene inserted in their genome, they have also been provided the genetic machinery to suppress the red pigments naturally present in roses.

Suppressing the red pigments in the engineered blue roses has not been perfect, that's why the new engineered roses appear faintly purple. Suntory's genetic engineers are continuing their research, striving to make the blue roses "clearer" by suppressing the red pigments entirely.

Besides a true blue rose, having blue pigment in the palette of rose colors will open up new possibilities in colors of new varieties.

Suntory plans to begin the marketing and sales of their blue rose in 2009. Considering the amount of time and money devoted to their development, I'm sure they will cost quite a bit. I have not seen it offered to homeowners yet, but when they are, I'm sure many gardeners will want to be the first on their block to grow a true blue rose.

Reprinted with permission from the author from <http://web.extension.uiuc.edu/macon/palette/090222.html>

MG Spotlight **By: Bruce Piatek, Florida Agricultural Museum Director**

Historic 1890s and 1930s Kitchen Gardens

Ever wondered what varieties of plants were in a kitchen garden in 1890 or 1930? Just ask Liz Rourke, Ingrid Elmorsi and Liz Morrison. They are the Master Gardeners who research, plant and maintain the historic kitchen gardens at the Clark homestead and Strawn citrus buildings at the Florida Agricultural Museum.

Over the last three years these hard working dedicated gardeners have blended modern know-how with historic plants to create two historically accurate and educational gardens. They sometimes battle with loose chickens and a mean rooster at the Clark homestead or horses eating in the Strawn garden.

The gardens bring the outdoor exhibits to life and allow visitors to learn about how people fed themselves in the past and how important the kitchen garden was to feeding a family. The important lessons visitors learn while touring these historic gardens are relevant to life today. Especially given the desire to eat locally, be more “green”, and save money.

So stop by the Florida Agricultural Museum and see for yourself the great job being done by our trio of Master Gardeners. We appreciate all the effort, time and sweat they give to make these gardeners a critical part of the historic landscapes at the museum.

Thank you Liz, Ingrid and Liz!



Master Gardeners (left to right) Liz Morrison, Liz Rourke and Ingrid Elmorsi



Know Your Days

Latest on Current Water Restrictions

Compiled by: Diane Cortés, UF/IFAS Florida
Master Gardener

When **Eastern Standard Time** is in effect, landscape irrigation must adhere to no more than **one** day per week schedule:

- Residential landscape irrigation at odd numbered addresses or no address may occur **only on Saturday** and before 10:00 a.m. or after 4:00 p.m.
- Residential landscape irrigation at even numbered addresses may occur **only on Sunday** and before 10:00 a.m. or after 4:00 p.m.
- No more than $\frac{3}{4}$ inch of water may be applied per irrigation zone on each day that irrigation occurs, and no irrigation may be done for more than 1 hour per irrigation zone on each day that irrigation occurs.

All landscape irrigation is limited in amount to only that necessary to meet landscape needs (i.e. water only when your landscape is thirsty!)

When **Daylight Savings Time** is in effect, landscape irrigation must adhere to no more than **two** day per week schedule:

- Residential landscape irrigation at odd numbered addresses or no address may occur **only on Wednesday and Saturday** and before 10:00 a.m. or after 4:00 p.m.
- Residential landscape irrigation at even numbered addresses may occur **only on Thursday and Sunday** and before 10:00 a.m. or after 4:00 p.m.
- No more than $\frac{3}{4}$ inch of water may be applied per irrigation zone on each day that irrigation occurs, and in no irrigation may be done for more than 1 hour per irrigation zone on each day that irrigation occurs.

All landscape irrigation is limited in amount to only that necessary to meet landscape needs (i.e. water only when your landscape is thirsty!)

EXCEPTIONS TO THE LANDSCAPE IRRIGATION SCHEDULES

- Irrigation using a micro-spray, micro-jet, drip or bubbler irrigation system is allowed anytime.
- Irrigation of new landscape is allowed at any time of day on any day for the initial 30 days and every other day for the next 30 days for a total of one 60-day period, provided that the irrigation is limited to the minimum amount necessary for landscape establishment.
- Watering in of chemicals, including insecticides, pesticides, fertilizers, fungicides, and herbicides, when required by law, the manufacturer, or best management practices, is allowed at any time of day on any day within 24 hours of application. Watering in of chemicals must not exceed $\frac{1}{4}$ inch of water per application except as otherwise required by law, the manufacturer, or best management practices.
- Irrigation systems may be operated at any time of day on any day for maintenance and repair purposes not to exceed 20 minutes per hour per zone.
- Irrigation using a hand-held hose equipped with an automatic shut-off nozzle is allowed at any time of day on any day.
- Discharge of water from a water-to-air air-conditioning unit or other water-dependent cooling system is not limited.
- The use of water from a reclaimed water system is allowed anytime. The use of recycled water from wet detention treatment ponds for irrigation is allowed anytime provided the ponds are not augmented from any ground or off-site surface water, or public supply sources.



Coming Soon... to a Radio Near You!

Join the Flagler County Master Gardeners *In the Garden* every Saturday morning at 7:00 am on WNZF 1550 AM or 106.3 FM for a half hour of garden tips, news, trouble shooting and chat!

Check WNZF's website for start date and topics: www.wnzf.com

Brought to you by:



&



Newsletter Contributors:

UF/IFAS Florida Master Gardeners:

Sheri Pruitt
 Louise Leister, W.E.P. Coordinator
 Jack Resser
 Honor O'Reilly
 Diane Cortés, Editor
 Julia Wilson
 Audrey Tennant
 Nadia Rosenbaum

Advisors:

Ruth Micieli, Horticulture Program Assistant and Master Gardener Coordinator
 Sharon A. Treen, County Extension Director and Family & Consumer Sciences Agent

FLAGLER COUNTY EXTENSION
SERVICE & UF/IFAS FLORIDA
MASTER GARDENERS



Flagler County Extension Svc.
150 Sawgrass Road
Bunnell, FL 32110

Phone: (386) 437-7464

Fax: (386) 586-2102

E-mail: rmicieli@flaglercounty.org

VISIT THE FLAGLER COUNTY
EXTENSION WEBSITE AT

WWW.FLAGLERCOUNTY.ORG

OR

WWW.SOLUTIONSFORYOURLIFE.COM

Upcoming Events:

Sat. and Sun., October 10 & 11 - Fifth Annual Creekside Festival at Princess Place Preserve. Live music, food, arts & crafts and kids activities. Hours: Sat 10 am to 4 pm and Sun 10 am to 4 pm. Admission: \$3 per carload. More info: 386-437-0106 or visit www.flaglerchamber.org

Thursday, October 29 - Green Industries Best Management Practices Training, 8:30 am to 3:30 pm at UF/IFAS St. Johns County Extension Wind Mitigation and Resource Conservation Building, 3111 Agricultural Center Drive, St. Augustine, FL 32092, Phone: 904-209-0430 <http://stjohns.ifas.ufl.edu> Pre-registration required. Cost: \$25 (includes lunch and all materials).

Wednesday, November 11 - Veteran's Day, Flagler County Extension Service office closed.

Saturday, November 14 - Go Native! at the Flagler County Extension Service auditorium located at 150 Sawgrass Rd, Bunnell. From 9 am to 2 pm a Florida native plants program featuring guest speakers and native plant vendors on site. Fee: \$15 (includes lunch). For more information or to sign up, call the Extension Service at 386-437-7464.

Thursday, November 26 & Friday November 27- Happy Thanksgiving! Flagler County Extension Service office closed.

December 11 - December 19 - Happy Chanukah!

Thursday December 24 & Friday, December 25 - Merry Christmas! Flagler County Extension Service office closed.

Thursday, January 1 - Happy New Year! Flagler County Extension Service office closed.