



Master Gardener Vision “to be the most trusted resource for horticultural education in Florida”

2266 N. Temple Ave., Starke, 904.966.6299 Email: lcompton@ufl.edu January, 2015

Where's the Winter?

While we have had a few days of cool weather so far this winter, it certainly isn't the cold weather I look forward to every year! With the El Nino in progress, it is supposed to be a warm and wet winter. All the plants, from my blooming azaleas to the bolting lettuce, are all confused about what they should be doing. The warm weather feels like spring to them, and they are acting accordingly. If you are wondering what to plant or what to do in your garden, check out our garden calendars on pages 2,3 and 4. The What's Buggin You section on page 5 is all about Asian cycad scale, commonly found on sago palms. As little as a few years ago, the Asian cycad scale was a death knell for sago palms, but now, with diligence and persistence and a good horticulture oil or systemic pesticide, the scale can be controlled. On pages 6 and 7 you can learn about Spicebush butterflies. I usually spot these in the garden in spring, but have occasionally seen them through the summer and fall, too. And on page 8, Jim DeValerio has written an article about the graduation of our newest Master Gardeners. It will be interesting to see what the weather will bring us in the near future, but in the meantime, be careful of the wet weather, and check your plants regularly for signs of mold. Happy Gardening!

Laurie

Camellias

Many Florida gardeners aren't aware of the sheer number of camellia varieties available. While the local big box garden store may only carry the common *Camellia japonica*, nurseries, public gardens, and even camellia societies can suggest many more. Camellias vary widely in mature size and light requirements. They also bloom at various times, so if you're looking for months of continuous blooms, you'll want to select carefully. Camellias are long-lived shrubs, so it's worth it to spend a little time thinking about where to plant them. Most camellias will perform best if you plant them in a sheltered location where they receive partial shade, though some sasanqua camellia varieties will tolerate more sun if they receive adequate irrigation. Camellias should be planted in a well-drained, preferably acidic soil and be watered regularly for the first year until they're established. After that they can typically survive on rainfall alone, though they'll perform better if irrigated during dry spells. Any pruning should be done before late summer when the flower buds form, though sasanqua camellias generally require only occasional grooming thanks to their slow growth and natural form.



Camellia “Bella Romana”

Laurie

What to Plant in January

Even though temperatures can fluctuate this time of year, it's still better to play it safe by choosing cold tolerant plants. Annuals that can be planted now include dianthus, flowering cabbage and kale, ranunculus, petunias, violas and snapdragon. For March flowers, plant delphinium, digitalis (foxglove), and larkspur in January or February. Now is a good time to plant Bulbs like African lily (Agapanthus), calla, crinum, day-lily, and gloriosa lily. Provide a layer of mulch for protection from cold temperatures. Vegetables to plant now include broccoli, cabbage, leeks, potatoes, radish and turnips. Lettuce are one of the first cool season vegetables to go to flower if we get a few days of really warm weather. Once the plant begins this process (bolting), harvest the leaves as soon as possible because they will become more bitter over time.



Blue delphinium

What to Do in January

Wait until March to plant into the landscape the poinsettia you were given at Christmas. Be ready to cold protect tender plants to minimize damage. Now is the time to purchase and plant bare root fruit trees like pears and plums. For citrus, harvest ripe fruit before a freeze if temperatures are going to drop below 28° for at least 4 hours. If fruit are not ripe, leave them on the tree because citrus will not ripen once picked. Water well 24 hours before a freeze. Purchase camellias now so you can see the flower color and type.

Source: http://solutionsforyourlife.ufl.edu/lawn_and_garden/calendar/



Camelia

Wildlife Calendar January

- Male cardinals begin territorial singing later in the month.
- Look for red-tailed hawks perched in trees along highways.
- Deer reach the peak of the rutting season in north Florida.
- Black bears in north Florida are inactive or in dens.
- Tree swallows are visible around sunset roosting over large marsh areas.

Source: http://www.wec.ufl.edu/extension/wildlife_info/happenings/

Did You Know? Across much of the U.S., the Tree Swallow is the hardiest swallow species. It returns early in spring, leaves late in fall, and winters in the southern U.S. According to Audubon's climate model, Tree Swallows will soon be wintering farther north and farther inland. The model predicts a 56 percent loss of current winter range, with some potential expansion during that season, but with some currently favorable areas along and near the Gulf Coast forecast to become less available for wintering Tree Swallows. A similar pattern is in store for summer: a 61 percent loss of current range, with the range drifting northward. Any northward spread will require nest sites: standing dead trees or human-supplied bird boxes.



Tree Swallow

Source: <http://climate.audubon.org/birds/treswa/tree-swallow>

What to Plant in February

Temperatures will more than likely drop to freezing this month, so new bedding plant additions to the garden must be able to withstand cold. Some plants that can take a chill are ranunculus, viola and dusty miller. For March flowers plant delphinium, digitalis (foxglove) and larkspur. Many bulbs can be planted now including calla lily, African lily and Voodoo lily. Provide adequate water to establish and protect from cold weather with mulch. February is the time to plant potatoes. Buy healthy seed pieces from a local nursery and plant 3" deep. Do not add lime to the potato planting bed. Also try vegetables like broccoli, kohlrabi, onions, endive and lettuce.



Ranunculus

What to Do in February

If you didn't prune your muscadines in January, do it this month. For muscadines, prune all branches that are less than 3/16" in diameter, leaving 2 to 3 buds per spur. Remove most of the spurs located at the top of the trunk to prevent crowding and bushiness. Harvest ripe citrus before a freeze when temperatures will drop below 28° for at least 4 hours. If fruit are not ripe, leave them on the tree because citrus will not ripen after it's picked. Fertilize young ornamental plants in mid-February with a specialty or 16-0-16 type fertilizer. Now is the time to plant bare root fruit trees like pears and plums. If warm season weeds were a problem last year, be prepared to treat with a pre-emergent before seeds germinate. If not done in January, fertilize citrus and other fruit trees now. *Source: http://solutionsforyourlife.ufl.edu/lawn_and_garden/calendar/*



Muscadine grapes

Wildlife Calendar February

- Pileated Woodpeckers begin their mating season.
- Ospreys will begin nesting in north Florida near the end of the month.
- Little Blue and Tri-colored Herons begin their nesting season.
- Eastern Moles are breeding this month in tunnels under our lawns.

Source: http://www.wec.ufl.edu/extension/wildlife_info/happenings/



Tri Colored Heron

Did You Know? On the southeastern coastal plain, the Tricolored Heron is a characteristic bird of quiet shallow waters. Strikingly slender, with long bill, neck and legs, it is often seen wading belly-deep in coastal lagoons. Although it is solitary in its feeding, it is sociable in nesting, often in very large colonies with various other herons and egrets. Formerly known as Louisiana Heron, it is still very common in parts of southeast, and has expanded range northward during the 20th century.

Source: <https://edis.ifas.ufl.edu/uw309>

What to Plant in March

Spring is almost here so we can start planting warm season bedding plants like alyssum, asters, blue daze, and cosmos. Plant allium, cannas, crinums and glory lily bulbs in beds that have been amended with organic matter. Provide stakes as needed to support growth. Some great perennials to try: beach sunflower, firebush, plumbago and pentas. Vegetable gardening season kicks in to high gear this month. Cool season crops that can still be planted this month include carrot, celery, leeks and lettuce. Warm season crops to plant include beans, tomato, eggplant, southern peas and corn. Protect from frost. As cool season crops come to a close, consider allowing some of the cold crops, like broccoli, to go to bloom. The flowers will attract bees, which will help in the pollination of your crops.



Allium

What to Do in March

Clean up dead leaves from cold damaged plants. Ginger and firespike can be cut to the ground. If fertilizer was not applied in February, apply in March around young trees and shrubs. Broadcast the fertilizer underneath the plant to the dripline, keeping fertilizer away from the base of plant stems and trunks. Identify and conserve beneficial insects: some insects should be encouraged in your yard! Fertilize palms, azaleas, and camellias. Choose a fertilizer that has at least 30% of its nitrogen as slow release.



Pinecone ginger

Source: http://www.wec.ufl.edu/extension/wildlife_info/happenings/march.php

Wildlife Calendar March

- Plant columbine, coral bean, and other wildflowers to attract hummingbirds.
- Listen for newly-returned chuck-will's-widows calling after sunset.
- Snakes become active and move to favorite feeding areas.
- Largemouth bass spawning throughout central and north Florida.
- Spring turkey hunters take to the field.
- Chickasaw plum and crabapples bloom in north Florida.

Did You Know? Coral bean is a native plant that can add interest to the landscape from spring until fall. Red tubular flowers grow on tall stalks in the spring, drawing hummingbirds and butterflies. In the fall, as the rest of the summer garden starts to fade, coral bean's seed pods begin to mature and the show begins. What once looked a bit like English pea pods turn dark, almost black, and split open to reveal shiny, scarlet red seeds nestled inside. They're very pretty—and very poisonous, so be sure to keep them away from kids and pets. In North and Central Florida coral bean grows as a large perennial, reaching 6 feet tall before it freezes to the ground in winter. In South Florida it grows as a large deciduous shrub or small tree. *Source <http://gardeningsolutions.ifas.ufl.edu/plants/ornamentals/coral-bean.html>*



Coral bean

What's Buggin' You

Asian Cycad Scale

Did you know that your sago palm is not really a palm? Many people aren't aware that sagos are actually cycads, an ancient group of tropical and subtropical plants that have existed since the age of dinosaurs. They dominated the earth then, but some cycads are now endangered. Cycads are often mistaken for palms, but are in fact only distantly related.



Sago frond infested with Asian cycad scale

Sagos were once considered traditional Florida landscape plants, but their popularity has dwindled, thanks to a pest called cycad aulacaspis scale, or Asian cycad scale. *Aulacaspis yasumatsui* is an armored scale that has been observed on many cycads in Florida, although this scale seems to favor sagos.

Cycad aulacaspis scale seems to spread over short distances by wind, and long distances by the transport of infested plants. It can coat a sago within months and kill it within a year. The scale can even affect the roots down to two feet deep.

Newly hatched scales, called crawlers, initially infest the

trunk and base of the leaves. These crawlers will also infest the leaves, cones, seeds, and roots of cycads. The damage from these tiny sucking insects initially appears as yellow or bleached-looking spots, eventually making the leaves brown and crispy. Highly infested cycads are almost completely covered with a white crust that consists of living and dead insects.



Damage from Asian cycad scale

Cycad scale is a tough pest to get rid of, but repeated treatments with horticultural oils or an approved systemic insecticide may help. To manage this scale, wash your plant with a vigorous spray of water to remove any dead or living scales. Then apply a horticultural oil, like Organocide, SunSpray oil, or Ultra-Fine oil, over the entire plant weekly for one month.

If you have heavily infested plants, remove the leaves before treating. Carefully discard removed fronds with household trash, not yard trash. In the case of severe infestations you may need to treat the roots as well. Frequent oil treatments can result in an unsightly build-up of oil and dead scales, but this can be improved by occasionally hosing the plant off.

South and Central Florida have seen some decline in Asian cycad scale populations recently. In South Florida, two natural enemies of the scale were introduced in 1997-98: *Cybocephalus nipponicus*, a predaceous beetle, and *Coccobius fulvus*, a parasitic wasp. While they have contributed to a decrease in the population of the scale, neither insect is able to provide complete control.



Two female and one male Asian cycad scales

By: Laurie

The Spicebush Swallowtail

Relatively common in natural areas and flower gardens, the spicebush swallowtail butterfly, *Papilio troilus* Linnaeus, is one of our most beautiful and interesting swallowtails. Larvae, pupae and adults are great examples of adaptive coloration. A male spicebush swallowtail was featured on the third butterfly stamp (issued January, 2013) in the U.S. Postal Service's series of stamps for large greeting cards that require additional postage.



The spicebush swallowtail is found throughout the eastern half of the United States from southern Canada south to southern Florida (except the Miami area and Keys) and west to Texas. It is less common farther west from the Mississippi River. Occasional stray insects are observed outside the normal range.

The wingspread range is 3.83-4.78 inches. The upper surface of the forewings is black with a narrow marginal row and a broader sub-marginal row of light yellowish spots. The upper surfaces of the hind wings also have the rows of spots, but they are light green in color. The median areas of the hind wings are dusted with blue in females and blue-green to green in males. There is considerable variation in the blue-green coloration of males. The undersides of the hind wings have marginal pale green spots and also marginal and post-median rows of bright orange spots separated by black and blue patches



Adult Female Spicebush



Adult Male Spicebush



Adult male with wings folded

There are at least three generations in the Deep South (Gulf of Mexico area and peninsular Florida) with peak numbers of adults in late spring and early fall in central Florida and two generations northward. Males are reported to drink from mud puddles but more commonly they extract minerals from wet soil, not from puddles. Males patrol host plants and flyways to locate females and courtship flights are slow with the male hovering above the female. Courtship and mating occur in the afternoon.

Eggs are laid singly on the undersides of new leaves of the host plants. Young trees are usually selected and eggs are typically laid from two to five meters above the ground.

In butterfly eggs, a small quantity of yolk remains trapped between two of the embryonic membranes that remain inside the egg shells after hatching. Soon after hatching, larvae eat the egg shells and the residual yolk serves as their first meal.



Left: spicebush swallowtail eggs, one on the near left close to hatching.

Right: Newly hatched 1st instar eating the egg shell.





Fully grown 5th instar

Spicebush swallowtail larvae are thought to feed only on plants belonging to the family Lauraceae. Red bay, sassafras, spicebush and camphor tree are documented hosts. Based on laboratory feeding tests, it is reported that neonate spicebush larvae starved to death rather than feeding on non-lauraceous hosts (including sweetbay, tuliptree and common pricklyash).

There are many native and exotic plants that are valuable as nectar sources for butterflies. When possible, native plants should be planted as nectar sources rather than exotics that have the potential to be invasive. The long proboscis of spicebush swallowtail adults allow them to feed at tubular flowers that are not accessible to many butterflies.

Most states have native plant societies that are valuable sources of information on native plants and many also hold native plant sales. For Florida and the deep south, the Florida Wildflowers Growers Cooperative is an excellent source of information and also has wildflower seeds for purchase. To maximize butterfly populations in yards, both caterpillar hosts and nectar plants for adults should be planted. Red bay, sassafras, and spicebush are recommended for spicebush swallowtail caterpillars. The choice of which one(s) to plant is dependent on locality. In areas where it will grow, red bay has the added advantage of serving as a host for caterpillars of the Palamedes swallowtail (*Papilio palamedes* Drury). Distribution maps for the three species can be found at the Plants National Database.



Red Bay



Sassafras

The leaf shelters constructed by developing larvae provide some protection for all larval instars, but the best protection comes from the resemblance of early instar larvae to bird droppings! These instars also have false eye spots on the metathorax (third thoracic segment). The white markings on the abdomens of these instars resemble the uric acid deposits in bird and lizard droppings making the resemblance even more striking.

All United States swallowtail larvae have eversible horn-like organs behind the head known as osmeteria. The osmeteria of spicebush swallowtail larvae are bright yellow in all larval instars. When threatened, larvae rear up, extrude the osmeterium, and attempt to smear the potential predator with a chemical repellent. The chemical makeup of the osmeterial secretion changes as the larvae mature. It was suggested that the shift in chemicals secreted may reflect a change in response to different predator threats as the larvae mature.



Spicebush

The spicebush swallowtail is threatened throughout its range due to mortality of its caterpillar host plants from laurel wilt fungus, which is transmitted by the introduced red bay ambrosia beetle. The list of Lauraceae infected by the laurel wilt fungus includes all of the known hosts of the spicebush swallowtail. Only the exotic camphortree has shown any resistance at all to laurel wilt. However, it is classified as invasive by the University of Florida Institute of Food and Agricultural Sciences, and planting is not recommended.



Congratulations 2015 Master Gardeners!

By: Jim DeValerio

UF/IFAS Extension agent Jim DeValerio celebrates with the 2015 UF/IFAS Bradford Master Gardener graduates: (left to right) Celina Rohman, Nehemiah Clark, Jim DeValerio, Helen Haverty, Bobby Davis, Randal Drawdy, Pam Kornegay, Bear Bryan, Lynn Bryan, Tonya Beauregard and Judi Benner (not pictured). The new graduates completed 50 hours of instruction over 10 weeks in the fall of 2015 and were recognized for their efforts during a ceremony on December 10th at the Plant Science Unit on the University of Florida's main campus.

In addition to being recognized for their accomplishments, the graduates, along with supporting Master Gardeners, learned how Master Gardeners impact the State of Florida from new MG Statewide Coordinator Wendy Wilber, followed by a presentation from Dr. Phil Koehler on household insects. Surprise! MG's learn about a lot more than just gardening! Ready to get outside, the group moved to the Horticultural Science Greenhouse complex to learn from Ria Leonard about UF/IFAS's very own coleus breeding program and to review one of the largest poinsettia breeding trails around. You might be surprised to learn that the colorful coleus plants you see in retail markets were likely developed at the University of Florida. After lunch, activities included a visit to the Plant Disease Diagnostic Clinic and a trip to the IFAS Bookstore where our new graduates found many books related to horticulture and gardening. The afternoon treat was a walking tour of a Florida Yards & Neighborhoods demonstration landscape alongside a traditional non-FYN landscape. It was very interesting to learn exactly how much water can be conserved without compromising landscape attractiveness!