

The Master Gardening Bench



The Manatee County Master Gardener Newsletter

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All articles are researched utilizing UF/IFAS Extension and/or other educational sources unless otherwise noted.



It's a *Miracle!*

By John Dawson, Master Gardener 2007

S. dulcificum is a very slow-growing, tropical evergreen shrub from West Africa. It is easily grown in a container and does well in our area. It can be kept small or allowed to grow. In Florida, it rarely exceeds 15 feet but can grow as large as 50 feet in its native homeland. My six-year-old plant is only two feet tall.

Miracle fruit (*Synsepalum dulcificum*) produces a red berry containing a substance called miraculin, a glycoprotein which coats and attaches to the taste receptors on the tongue and converts foods that are acidic or sour tasting into something sweet. It makes a tart lemon, for example, taste more like lemon candy. The effect occurs quickly and has been researched for a variety of medical purposes including improving chemotherapy treatment, as a sugar substitute, and as an anti-gout therapy.

Chemotherapy leaves a nasty lingering metallic taste which causes most patients to lose their appetites, when they really need to eat to keep up their strength. Miraculin can make their food be more pleasant and palatable. I have grown this plant for years and often donate the berries to people in medical need.

Since it is tropical, it needs protection when temperatures go below 45°F (another reason to grow it in a pot). The red berry - about the size and shape of a large jelly bean - can provide therapeutic effects lasting anywhere from 15 to 90 minutes, depending on the amount of miraculin in each fruit or an individual's reaction to it. The fruit itself tastes pleasant, but not all that sweet. Its berries are often used as a novelty at parties.

Miracle fruit is an easy, good-looking, low-maintenance plant for your yard or patio. The plant likes to have its roots contained, so it is best to keep the container small and pot up as the plant grows larger. Miracle fruit is an acid loving plant and likes soil in the pH 5 range. Use a soil mix of equal parts pine bark, peat and perlite. Two or three times a year during the warmer months, provide an acidic plant fertilizer. Water quality is essential for keeping this plant healthy. It does not like the chemicals in city or reclaimed water. Rain water is best, but city water left alone for a day or so will suffice.

Germination from seed may be difficult, in that only seed from overripe fruit will be viable. I place my potted plant in mulch when fruiting and allow some of the fruit to fall naturally. Usually several offspring will sprout up in the mulch for easy replanting.

Although the mother plant likes full sun, the offspring will not survive unless provided partial shade. Once a plant gets about two feet tall, gradually move it into more sun. If your plant seems unhappy in its new location, move it back to more shade. With more sunlight, miracle fruit will produce berries several times a year. The older and larger it becomes, the more berries it will produce. The berries have a short shelf life but can be frozen. Exposure to heat destroys the miraculin. In the years that I have grown this plant, I have had no problems with insects or disease.

For more info, visit:

http://bioweb.uwlax.edu/bio203/s2012/sabel_emma/miraculin.htm



Due to its growth pattern, I'm almost 100% certain of my identification; however, because I am occasionally wrong and since it may kill your shrub, bring a sample to our Plant Diagnostic Clinic (see hours of operation below.)

Q: Dear Master Gardener,

What is this vine that keeps growing on our Schilling shrubs? Thanks.

K. W.

A. Dear K.W,

Thank you for contacting the Manatee County Extension Master Gardeners.

A vine without leaves in a shrub leads me to identify this as *Cassytha filiformis*, "Love vine," although there isn't anything to love about this vine! Unfortunately, this plant is a parasite, depending entirely on the host plant for survival. Once this plant grows past the seedling size, twining around the host plant, it attaches itself to the shrub and its own roots wither away, becoming completely dependent on the host for its survival. Overgrowth of love vine can reduce plant vigor due to shading.

Love vine is difficult to treat chemically without harming the host plant. Your best options are manual removal when first spotted or pruning or removal of the host plant. I'm including a link to a publication about dodder (*Cuscuta* spp., another problematic parasitic vine) which includes chemical controls.

<http://edis.ifas.ufl.edu/ep556>.



Master Gardener Karen Holleran answers your email questions and looks at photos for identification of problems at ManateeMG@gmail.com. Or visit our Plant Diagnostic Clinic Monday through Friday (closed Wednesdays) from 9:00 A.M. to 4:00 P.M. at 1303 17th St. W., Palmetto, FL. Or call us with questions at 941-722-4524 and ask for a Master Gardener.

The Tomato Yellow Leaf Curl Virus

By Jim Haupt, Master Gardener 2016



According to the University of Florida/IFAS, tomato yellow leaf curl virus (TYLCV) is one of the world's most damaging tomato diseases. Suspected of originating in the Caribbean and making its first appearance in Florida in 1998, TYLCV continues to plague both commercial growers and home gardeners. Unlike other pathogens, TYLCV does not survive in the soil nor will you find it on stakes, cages, twine, or garden implements. Rather, the virus is transmitted from plant to plant by the silverleaf whitefly (*Bemisia tabaci*). The silverleaf whitefly can obtain the virus from an infected plant in 15 to 20 minutes, during a single feeding, and can continue to infect an indefinite number of plants for about 10 days. After that period of time, it can reacquire the virus, and infect even more healthy plants.



Regular scouting is an effective first line of defense against this serious intruder. Be especially vigilant if your garden site is near a tomato production site where there is a greater possibility of whiteflies. Look carefully under leaves for whitefly intrusion. For a more accurate diagnosis, look for TYLCV symptoms: When plants are young, one of the earliest symptoms to look for is marginal leaf yellowing and upward leaf curling on newer leaves. Later, as plants mature, watch for severe curling, reduction of leaf size, flower drop, and plant stunting. Sometimes, you may notice that the tops of plants appear to be bushy. Symptoms do not necessarily occur at the same time, and some are specific to other tomato viruses, making an accurate diagnosis difficult. When in doubt, contact your county's Extension Office for additional assistance.

Many strategies to control this virus has been tested, but with limited success. Some of the more successful control options include removing infected plants from the garden site, removing weeds, using reflective mulches, timely pesticide applications, and TYLCV resistant plants.

Visit <http://edis.ifas.ufl.edu/pdffiles/HS/HS118900> for a listing of tomato resistant varieties.

For more information, consult:

http://ipm.ifas.ufl.edu/Agricultural_IPM/tylcv_home_mgmt.shtml,
<http://edis.ifas.ufl.edu/pdffiles/PP/PP12100.pdf>,
<http://ipm.ifas.ufl.edu/pdfs/TYLCV.pdf>.



A tomato plant infected with tomato yellow leaf curl virus, left, stands next to a disease-resistant plant developed by UF/IFAS. Once infected with the disease, tomato plants no longer grow normally.

Photograph by: Ernest Hiebert/UF.

I'm New to Florida: So Help Me with Flower Bulbs Here!

By Nancy Hammer, Master Gardener 2014



Agapanthus

This is the second in a series of articles for transplanted gardeners from up North. You may have fond memories of spring blooming tulips, daffodils and hyacinths and wonder if you can replicate them in your Florida landscape. Unfortunately, these require cooling dormancy that our mild winters do not provide. But take heart, there are a variety of spectacular flowering bulbs (and tubers, rhizomes, corms) for your Florida gardens that will bring a smile to your face!



Amaryllis

Agapanthus, also known as African lily or lily of the Nile (*Agapanthus orientalis*) sports large, blue or lavender funnel-shaped flowers atop long stalks in summer and early autumn. It's a showstopper when in bloom! Look for disease resistant varieties for humid climates.

Amaryllis (*Hippeastrum x hybridum* Amaryllis) is a very popular winter blooming potted plant up North. In Florida, you can grow them in pots as well, but their spectacular trumpet-shaped flowers will also really pop in your spring garden. They are available in numerous shades and color combinations.

Caladiums (*Caladium x hortulanum*) are prized for their colorful, patterned, and varied leaf shapes that dazzle spring through fall. There are numerous heart-shaped and lance-shaped cultivars to choose from – some favoring shady areas, and others thriving in morning sun.



Caladium

Cannas (*Canna* spp.) lend a tropical feel to the Florida landscape with their gladiola-like flowers and large banana plant-shaped leaves. These heat loving plants are available in a wide range of flower colors and will bloom throughout the season if spent flowers are removed.

Crinum lily (*Crinum* spp.) looks very different from anything you have ever had up North. Grown from true bulbs which can weigh up to 40 pounds, these large rosettes have green or maroon leaves up to 4 feet long and fragrant spidery white, pink, rose, or striped flowers much of the year.



Canna

Rain lily, airy lily, rainflower and zephyr lily (*Zephyranthes* and *Habranthus* spp.) consist of about 70 species (some native) which get their names because of their habit of blooming after rainfall. These easy-going bulbs delight spring through fall with crocus-like flowers in a variety of colors.

Other possibilities include begonia, dahlia, gladiolus, and spider lily.

For more details see:

https://edis.ifas.ufl.edu/topic_bulbous_flower, or contact our Plant Diagnostic Clinic.

Finally, if you are really hankering for tulips, treat them like annuals. Pre-chill bulbs for 2 to 4 months, and then plant in winter. Or, support your local florist this spring!

“Prevent it by Vigilance!”

By Amy L. Stripe, Master Gardener 2008

Going through the personal belongings of my darling Dad (a WWII vet and - clearly - pack rat!), I happened upon a crumbling flyer from the war years with the above quoted headline. How appropriate for this article’s topic: two pests that are on a relentless march into our county and which our powers of observation may be able to mitigate!

Emerald Ash Borer (EAB)

A wood-boring beetle, this flashy metallic blue-green insect attacks ash trees (*Fraxinus* spp.) resulting in death of the tree. Over 50 million ash trees in the midwestern U.S. have succumbed to this bug. Georgia is the most recent recipient of this pest, and it is inevitable it will spread to Florida. To prevent its spread, first and foremost, do not import any ash firewood from anywhere!

Also, inspect your own ash trees: look for woodpecker foraging, thinning of canopies, water sprouts (new growth along the trunk) and exit holes or galleries left by foraging larvae. If you suspect EAB, get rid of infested trees if you have multiples. You do not want it to spread.

For more information, visit:

<https://edis.ifas.ufl.edu/in1141>

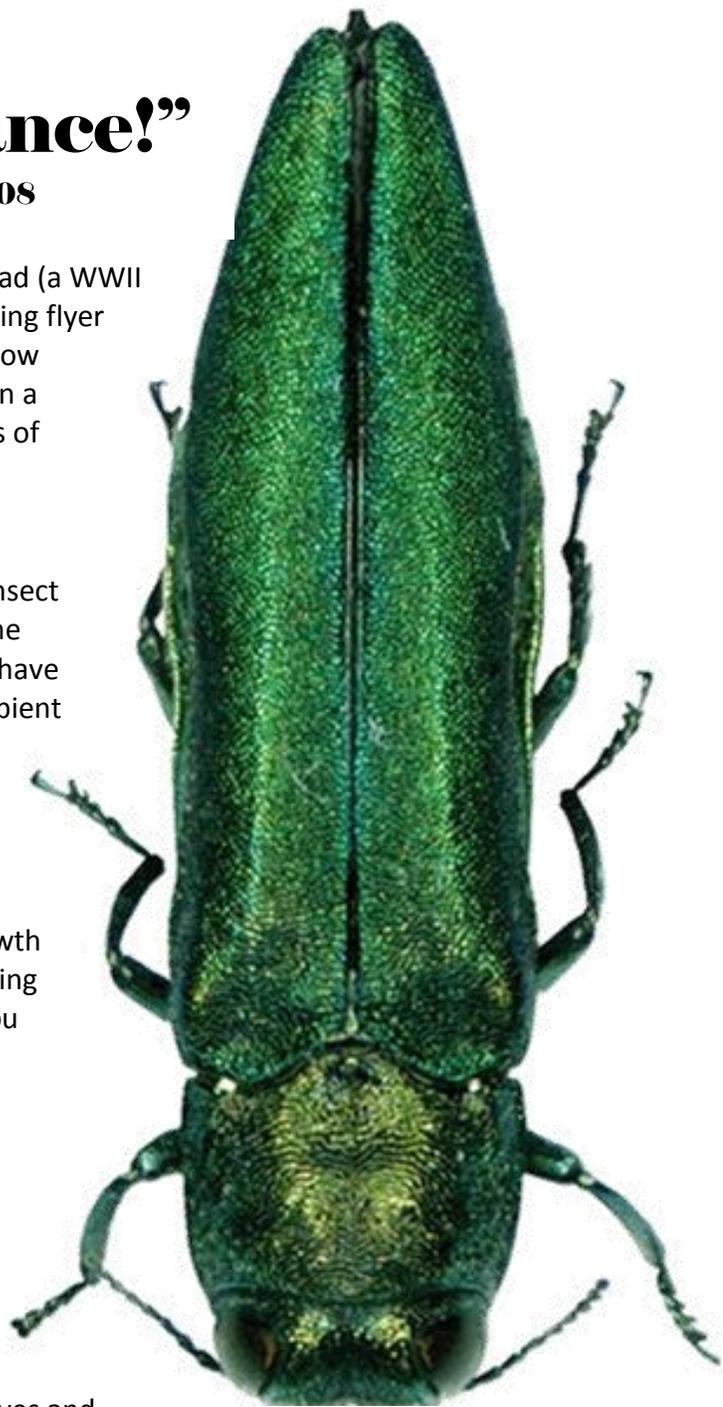
And search for, “The Emerald Ash Borer is Coming” on YouTube, featuring University of Florida scientists on video.

Fiorinia phantasma scale

The scale insect infests the undersides of palm tree leaves and other ornamentals. It is not yet reported in Manatee or Sarasota counties. In areas where it is present in large quantities (e.g., Hawaii), it causes cosmetic damage (blotchy yellow appearance) and then leaf drop. Last year, a significant infestation of this pest was discovered in Miami-Dade County.

For more information, visit:

<http://blogs.ifas.ufl.edu/pestalert/2018/04/25/new-palm-pest-in-florida-phantasma-scale-fiorinia-phantasma/>.



Manatee County's Agricultural Heritage

By Mary Lange, Master Gardener 2017

Among our Master Gardeners at the Extension Service, some (myself included) are relative newcomers to the state of Florida. However, through our efforts to teach vegetable gardening, Florida-Friendly Landscaping™, and how to create pollinator habitats, we have quickly become part of a long and prosperous agricultural tradition in our adopted county. Let's take a quick look at the history, current state, and future of agriculture in Manatee County.

A good place to start is the Manatee County Agricultural Museum in Palmetto. This small museum holds a wealth of information and historical artifacts dating back to the mid-1800s when the county was established (1855) and the first settlers (after the American Indians) began to farm the land.

Sugar plantations, including the well-known Gamble Plantation in Ellenton, established along the banks of the Manatee River were the mainstay of the economy in the early years. By the late 1800s, however, cattle ranching (both dairy and meat production) took over as the county's major agricultural focus. Citrus production started in the 1880s and expanded rapidly in the early 20th century. Tomatoes, along with other vegetables, also began to be mass-produced in the early 1900s.

Today many of these early staples continue to contribute to the estimated \$646 million agricultural economy of Manatee County. The latest statistics from the Manatee County Extension Service indicate that over 313,000 acres (nearly 794 farms) are under agricultural production. Vegetables, particularly tomatoes, are now the number one agricultural enterprise in the county, utilizing 55,700 acres and contributing over \$290 million to the county's economy. The citrus industry, with over 24,000 acres still in production, ranks a close second, although it has steadily been declining over the past three decades

due to pests, disease (e.g., citrus greening), and most recently Hurricane Irma in 2017. As citrus has declined, ornamental horticulture has been slowly growing. Nurseries, greenhouses, and the sod industry encompass over 5,900 acres and add approximately \$35 million to the county's economy. Finally, we still have cows. Over 196,500 acres are dedicated to raising cattle (over 40,000 head) for beef and dairy production. Together with horses and other livestock, the value of this industry is also estimated at around \$35 million.

While agriculture in Manatee County remains strong, it faces an uncertain future. Our local farmers confront increasing challenges including the rising costs of inputs (fuel, seeds, fertilizer, etc.), stiff competition from Mexico and other countries that can produce the same commodities at a much cheaper cost, and the ever-changing and unpredictable weather. As farms go under, we see agricultural land being replaced by commercial and residential developments. It is difficult to stop this momentum. However, through the Master Gardener volunteer work and our community's participation in events and organizations such as Farm-City Week, the Manatee County Fair, Future Farmers of America, and 4-H, we can help preserve and raise awareness of the rich agricultural heritage of Manatee County.

For more information:

Manatee County Agricultural Museum
(www.manateecountyagmuseum.com)

Manatee County Farm Bureau
(www.manateecountyfarmbureau.org)

Manatee County Agriculture and Extension Service
(<https://www.mymanatee.org/>).

Florida Backyard Wildlife Habitat Program

By Norma Kisida, Master Gardener 2012

Photographs by Norma Kisida and Sandy Plummer

On a recent beautiful fall morning, several Master Gardeners met with Susan Griffith, the Manatee County Extension Florida-Friendly Landscaping® Coordinator, and piled into the county van. Our mission is to visit the garden of Sandy Plummer, who has completed the application to have her backyard certified by the “Florida Backyard Wildlife Habitat Program” through the Florida Wildlife Extension (part of the Department of Wildlife Ecology and Conservation at the University of Florida). Susan presents Sandy with the yard sign and certificate; Master Gardeners are there to learn more about certifying homeowners’ gardens as wildlife habitats.

Although Sandy moved here from Maine ten years ago, it was not until she attended many of the classes offered by the Manatee County Extension Service just a few years ago, that she became interested in adopting Florida-Friendly Landscaping® practices, incorporating native plants, and supporting wildlife. Sandy states that these classes changed her life: learning how to garden in Florida, meeting new friends, and becoming more involved in her community. She learned about the wildlife certification program through Susan Griffith while attending one of the Florida-Friendly Landscaping educational programs. She also joined the Florida Native Plant Society and became a member of the Manatee River Garden Club.

Sandy lives in a suburban neighborhood in Palmetto which has a homeowner’s association, and her front garden is more conventional with grass and commonly-planted trees and shrubs. It is not until we enter the back of her property that we find the things she has done to attract wildlife and to apply many of the Florida-Friendly Landscaping™ practices she learned while attending Extension classes.

Her property backs up to a conservation area and large pond. Some of the native plants we see are firebush (*Hamelia patens*), privet senna (*Senna ligustrina*), beautyberry (*Callicarpa americana*), and native lantana (*Lantana depressa*). She has a fruit and vegetable garden which includes butterfly host plants such as parsley and fruits such as blackberries. She has many bird feeders and water sources for birds and butterflies. Abundant wildlife such as birds, squirrels, turtles, raccoons, and even a fox visit the garden.

While we are there, we see native pollinators, butterflies, caterpillars, and birds. One of the Master Gardeners remarks that the garden is very orderly, attractive, and small enough that it would not be overwhelming for homeowners to replicate.

We want more Manatee County residents to become aware of the program and apply for certification! Requirements for the wildlife certification include plants that provide food, a water source, shelter, and places to raise their young. If you are interested in having your property certified, call Susan Griffith (941) 722-4524, ext. 1825 for an application or come by the Extension office to pick one up. The completed application can be brought, mailed, or scanned and emailed to Susan sjgriffith@ufl.edu. It will be sent to the University of Florida in Gainesville for review before being returned to Susan who will do the site visit.



Susan Griffith (L), Florida-Friendly Landscaping Program Coordinator and Sandy Plummer (R), 2019 Master Gardener



Monarch Butterfly Caterpillar



American Beautyberry



Raccoon



Privet Senna

February

CALENDAR OF EVENTS

Date	Time	Event
1 st Saturday	10:00 a.m.-1:00 p.m.	Ask a Master Gardener – Island Library – 5701 Marina Drive, Holmes Beach. Visit the Extension Master Gardener information table and get answers to your gardening questions.
2 nd & 4 th Saturday	10:00 a.m.-1:00 p.m.	Ask a Master Gardener – Rocky Bluff Library – 6750 US Highway 301 N., Ellenton. Visit the Extension Master Gardener information table and get answers to your gardening questions.
2 nd Saturday	10:00 a.m.-1:00 p.m.	Ask a Master Gardener – South Manatee Library – 6081 26 th Street West, Bradenton. Visit the Extension Master Gardener information table and get answers to your gardening questions.
Saturday February 2	10:00 a.m.-Noon	Herb Gardening - Start this season with your own herbal garden! Let us introduce you to some of the herbs that thrive in our Florida climate. Explore how to grow them and use in your kitchen. Information will be given on their medicinal values and how they may affect or enhance your health. \$5 administrative fee. Register on-line at http://uf-ifas-extension-manatee.eventbrite.com or call the Extension Master Gardeners at (941) 722-4524.
Saturday February 2	1:00-2:30 p.m.	Gardening in Central Florida – A Newcomer’s Guide - Are you new to gardening to Central Florida? Newcomers often have trouble getting plants to survive, much less thrive. This informative workshop can help you make the transition to successful gardens in conditions unique to Central Florida. \$5 administrative fee. Register on-line at http://uf-ifas-extension-manatee.eventbrite.com or call the Extension Master Gardeners at (941) 722-4524.
Saturday February 9	9:00-11:00 a.m.	Extension Master Gardener Plant ID Tour - Riverview Pointe Preserve – DeSoto National Memorial – Stroll through Riverview Pointe Preserve to learn more about Florida’s native plants and inhabitants of a coastal habitat. Suitable for all ages. The hike begins in the parking area of the DeSoto National Memorial Park and enters into the Riverview Preserve at 8250 DeSoto Memorial Highway, Bradenton. To register call the Extension Master Gardeners at (941) 722-4524.
Saturday February 9	9:00-11:00 a.m.	Extension Master Gardener Plant ID Tour – Emerson Point Preserve - Stroll through Emerson Point Preserve to learn more about Florida’s native plants and inhabitants of a coastal habitat. Suitable for all ages. Call the Extension Master Gardeners to register (941) 722-4524.
Saturday February 16	9:00-11:00 a.m.	Extension Master Gardener Plant ID Tour – Rye Preserve - Take a hike through upland habitats along Rye Branch and learn about Florida native plants, natural history, and early settlement of the area. Drinking water, sturdy shoes, and hiking sticks are recommended. Visitor Center open 9am-noon and 1-4pm. Call the Extension Master Gardeners to register (941) 722-4524.
Sunday February 17	9:00-11:00 a.m.	Extension Master Gardener Plant ID Tour – Robinson Preserve - Stroll through the Robinson Preserve’s salt marshes to learn more about Florida’s native plants and inhabitants of a coastal habitat. Suitable for all ages. Trail consists of shell paths with little shade. Good walking shoes, drinking water, hat, and sunscreen are recommended. Call the Extension Master Gardeners to register (941) 722-4524.
Saturday February 23	10:00-11:30 a.m.	Stunning Staghorns - Have you always loved the look of staghorn ferns but never knew how to care for them? In this workshop, you will learn how to mount a staghorn on wood and take home your own plant. Space is limited! Registration and advance payment for plant and mounting materials due by February 15. Register on-line at http://uf-ifas-extension-manatee.eventbrite.com or call the Extension Master Gardeners at (941) 722-4524.
Wednesday February 27	10:00 a.m.-2:00 p.m.	Taking the Mystery out of Micro-Irrigation - In this micro-irrigation class you will learn how to select, install, and operate your own water-saving irrigation system, the pros and cons, parts and pieces, and how to put it all together. Register online at http://uf-ifas-extension-manatee.eventbrite.com or call Erik (941) 722-4524, ext. 1828.
Thursday February 28	10:00 a.m.-Noon	Ground Covers – Learn how landscaping with low-growing ground cover plants has become a popular trend in landscape practices because these plants need little or no water. Learn noteworthy plants, site considerations, and management of these plants. Register online at http://uf-ifas-extension-manatee.eventbrite.com or call Erik (941) 722-4524, ext. 1828



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