

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.

Extension's Community Garden Program

Text and Photographs by Norma Kisida, Master Gardener 2012

First begun in 2015, the Community Garden Program at the Manatee County Agriculture and Extension aims to assist in the development of community and school gardens and to help educate community leaders and constituents. Mack Lessig came aboard as coordinator for the program in October 2017.

Mack is a biology major, a Manatee County Master Gardener, and an avid gardener. He describes himself as a "plant freak" with a passion for vegetables, native plants, wildflowers, and pollinators. Mack especially enjoys the teaching aspect of the job and being a liaison between communities: seeing clients interact socially, sharing seeds and information.

One of the gardens in the program is Manatee Square, a partnership between Extension and Manatee County Department of Health. This garden at the health department consists of twenty 2'x 4' raised beds which are available to the public for a fee of \$20, which includes the soil and all the amendments. Another garden Mack currently works with is Faith Bible Church.



Mack Lessig
Community Garden Program Coordinator



Mack teaching Tillman Butterfly Brigade students about seeds

School gardens include the Tillman Elementary butterfly garden (led by Manatee County Master Gardeners), and the Visible Men Academy, an all-boys elementary school. Another project is working with the Manatee Food Action Committee (MFAC) to develop strategies to help feed communities that do not have easy access to fresh vegetables.

Shortly after starting his position last year Mack renovated a demonstration garden at Manatee County Extension. In this teaching garden, Mack is planting seasonal vegetables and pollinator plants in both ground beds and raised beds.

Mack will be leading a garden education training series designed to teach community garden leaders. The first class (of four monthly sessions) will be held May 23rd at Manatee County Agriculture and Extension. If you are seeking to start a community garden, have questions, or want to enroll in the educational class, he may be reached at 941-722-4524 ext. 1821 or by email (mlessig@ufl.edu).

GET A
GOOD
THING
GROWING!



Q: This is my neighbors palm tree and it looked healthy until yesterday. Maybe you know why. Thank you. (Photo attached.)

U.T., Manatee County



A: This is quite shocking when it happens, especially as it appears to occur on a healthy palm. This is called thielaviopsis trunk rot, or bud rot, caused by the fungus *Thielaviopsis paradoxa*.

This fungus seems to be somewhat random, but every time it is diagnosed, there is a fresh wound on the palm that allows the fungus to penetrate. Insects, birds, and pruning green fronds (so-called "hurricane pruning") are some ways a palm trunk can be wounded. The fungus affects the most tender parts of the trunk before they turn ligneous (woody), which is why the palm collapses at the newest portion.

There often are no symptoms that the palm has been infected before it collapses. Immediate removal of the affected palm is recommended to prevent the spread of spores. Care should be taken on landscape palms to ensure the trunk isn't damaged by climbing spikes, weed eaters, or pruning of live fronds. These practices can make fresh cuts and allow the introduction of the pathogen.

I've included a link to a publication about this pathogen: <http://edis.ifas.ufl.edu/pdf/PP/PP14300.pdf>.

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.

What's This?

By Rob Hinz, Master Gardener 2016

Is it a bird? Is it a moth? You've just spotted a hummingbird moth!

Worldwide there are more than 1,200 species of hummingbird moths with roughly 125 seen in North America. According to the United States Department of Agriculture's Forest Service, there are four common species in Florida. They include the white-lined sphinx (*Hyles lineata*), hummingbird clearwing (*Hemaris thysbe*), snowberry clearwing (*Hemaris diffinis*), and the tobacco hawk moth (*Manduca sexta*).

Hummingbirds and hummingbird moths seem to be similar. However, to the critical eye there are distinctions. The hummingbird moths are insects, not birds: they are smaller in size, have antennae, and their wings sport boldly colored patterns or clear, transparent sections which hummingbirds would never have. The moth has six legs rather than two, with a thick barrel-shaped moth body rather than the slender shape of the hummingbird. The moth has a proboscis rather than a beak. And, moths are less aggressive than hummingbirds.

Generally, one would find hummingbird moths in gardens, pollinating flowers, bushes, and fruit trees. They are seen mostly at dusk and feed throughout the night, but can be seen during the day. (Hummingbirds feed during the day and at dusk.) At the larval stage, some species are powerful eaters and are known to damage crops (such as tobacco and tomato) and gardens. Your garden pest tomato hornworm is the larval stage of a lovely hummingbird moth!

Hummingbird moths migrate, and are found in the south from March to June and again from August to October. For more information, see:

<http://edis.ifas.ufl.edu/in158>

<http://blogs.ifas.ufl.edu/wakullaco/2017/09/22/tobacco-hornedworms-become-hummingbird-moths/>



White-lined Sphinx Moth

Photo Credit: D. McIntire, Torreya Pines State Natural Reserve



Hugh Christy

Photo Credit: H. Christy, USDA Forest Service



Tomato Hornworm Moth

Photo Credit: J. Capinera, UF/IFAS

Alternatives to Invasive Plants in Florida Part 4 in the Series

Brazilian pepper-tree (*Schinus terebinthifolia*)

By Nancy Hammer, Master Gardener 2014

In this fourth article of our invasives series, we consider one of the most prolific and destructive invaders of our native ecosystems – the Brazilian pepper, a perennial shrub and tree. You will have spotted clumps of Brazilian pepper on roadsides, freeways, in empty lots, along waterways, and in neighborhood conservation areas, especially when they are sporting bright red clusters of berries during winter months. You might have even seen it sneakily sprouting in your landscape. (I recently discovered one near our irrigation well.) One place you won't find it is at your local garden center as it is a prohibited species (illegal to plant.)

The Brazilian pepper was introduced as an ornamental from South America in the 1840's. Sometimes known as "Florida holly," its appeal is understandable with white flowers in the fall, followed by flashy stem-end clusters of brilliant red berries starting in December. Unfortunately, it produces thousands of seeds which are easily spread by birds and mammals (including us), and it easily resprouts when pruned. As a result, Brazilian pepper has seriously impacted our native mangrove stands, pinelands, hammocks, and aquatic habitats. Our natives just can't compete with its dense canopy and bullying ways.

For comprehensive information on how to eradicate Brazilian pepper, refer to Brazilian Pepper-tree Control by Ken Gioeli and Ken Langeland at <http://edis.ifas.ufl.edu/aa219>.

Once you remove Brazilian pepper from your property, you may be looking for attractive alternatives for landscape interest, color, and screening. Several hollies, viburnums, and others can fit the bill.

Dahoon holly (*Ilex cassine* var. *cassine*) is a native pyramidal shaped evergreen tree reaching 20-40 feet with shiny, dark green leaves and attractive red berries prized by wildlife. For berries, male and female trees are needed. It's an excellent option for wet areas of your landscape.

Another native, yaupon holly (*Ilex vomitoria*), is available in several cultivars offering different evergreen forms including upright, weeping and dwarf. Like the Dahoon holly, a male and female are required for berries.

Sweet Viburnum (*Viburnum odoratissimum*) is a non-native tree which reaches 25-30 feet and is covered with very fragrant, tiny, white flowers in the spring, followed by small red berries.

Walter Viburnum (*Viburnum obovatum*) is a native available in several forms including upright, spreading, weeping, or dwarf. Leaves may be very small to medium, glossy, leathery, dark green, and fragrant when crushed. White flowers cover the plant in winter or spring.

Firebush (*Hamelia patens*) is a popular, tough Florida native that features whorls of reddish-orange, tubular flowers which attract butterflies and hummingbirds. It is a fast grower that can be pruned to the desired height.

For additional information, UF/IFAS publications are available online or call the Master Gardener Plant Diagnostic Clinic at (941) 722-4524.



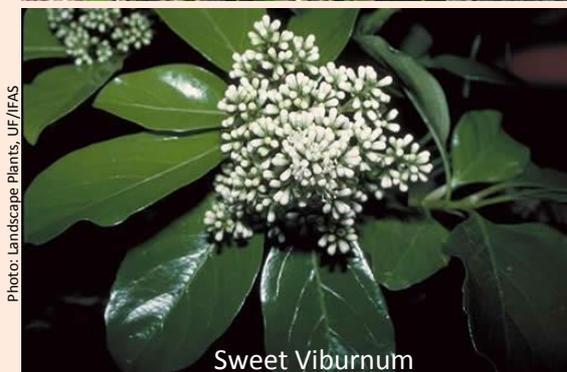
Brazilian Pepper



Dahoon Holly



Dodds Cranberry Yaupon Holly



Sweet Viburnum



Walter Viburnum



Firebush

Music, History, and Flowers at Bok Tower Gardens

Photos and Text by Joy Derksen, Master Gardener 2004

Spring is coming to Bok Tower Gardens, making it an ideal time to visit this historic garden. The famous American landscape designer Frederick Law Olmsted, Jr. originally set up these gardens for Edward Bok, the editor of the Ladies' Home Journal magazine and a Pulitzer Prize winning author. He was influenced by his grandmother's admonition to "make you the world a bit better or more beautiful because you have lived in it."

The gardens, near Lake Wales, are set upon one of the highest points in Florida. The iconic Singing Tower carillon at the heart of the gardens rises to 298 feet above sea level. The property was bought in 1921, the gardens were planted, and Mr. Bok gave it to the American people in February of 1929.

The gardens are known for spring blooms of azaleas, camellias, iris, nun's orchids and magnolias. They also have an excellent spring bulb display. The pathways are mulched or paved so it is easy to wander about. The site is built on a hill; there is some climbing up a gentle incline.

The gardens have recently been renewed. There is a pollinator garden, a tillandsia garden, an edible garden, and an outdoor kitchen.

If you like native plants or want to learn more

about them, there are two different areas of interest for you. The Endangered Plant garden showcases rare and disappearing Florida plants. The Wild Garden focuses on four different Florida biomes—pine savanna, oak hammock, wetland prairie, and a bog. My favorite part is the boardwalk that takes you over the wildlife pond.

If you have children or grandchildren to entertain, the Hammock Hollows Children's Garden provides a place for them to run and climb and play while you watch them from a nearby bench!

And finally, the music is provided by the neo-gothic and art deco Singing Tower (designed by Medary and with stonework by Lee Lawrie, both historical figures). Concerts featuring the playing of the 60-bell carillon are held daily at 1:00 and 3:00 P.M.

The Gardens have reciprocal agreements with other gardens and museums, so check and see if you might get in for free. Parking is free. There is a cafe at the visitor center and a gift shop with plants. You can also bring in your own lunch. I can easily spend the day here wandering about, listening to music, and buying plants.

For more information and driving directions go to: <https://boktowergardens.org/>.



A peaceful resting spot



Sylvester Palm



Drilling the hole for the injection valve



Injecting the OTC

Inoculating Palms

By John Dawson, Master Gardener 2007

Palm trees in Florida are being threatened by a host of new diseases that are taking their toll on another icon (along with citrus) of our state's agricultural resources. Can you imagine a picture postcard of Florida without palm trees and orange trees?

Several months ago, I noticed one of my wild date palms (*Phoenix sylvestris*) had a higher than normal discoloration of its lower fronds which I attributed to a possible potassium deficiency. But this didn't seem quite right as a second wild date palm about 30 feet away (treated the same) looked perfectly normal. More recently, this palm also showed evidence of a boron deficiency. After going to a class on palm diseases at the Extension office, I asked the presenter (a local ISA arborist) to come and look at it. He confirmed a nutrient deficiency but also speculated that it might also have a disease called Texas Phoenix palm decline (TPPD).

A tissue sample test is required to confirm TPPD. TPPD is caused by a phytoplasma (a bacteria without cell walls), which is most likely spread by sap sucking insects. Lethal yellowing (LY) is another lethal palm disease that is caused by a phytoplasma. Not all palms are susceptible and some have more resistance than others. Foxtails (*Wodyetia bifurcata*) and royals (*Roystonea regis*) do not seem to be affected now. Healthy palms will have more resistance than those under stress.

So far, the palms found to be most susceptible to TPPD are: wild date palm, edible date palm (*Phoenix*

dactylifera), Canary Island date palm (*Phoenix canariensis*) and most recently, the cabbage palm (*Sabal palmetto*) and queen palm (*Syagrus romanzoffiana*.) The disease becomes lethal to palms by slowly cutting off the flow of nutrition within the palm (similar to clogged arteries).

TPPD and LY can be kept in check (but not cured) by inoculation with the antibiotic oxytetracycline HCl (OTC). Inoculation with OTC is primarily used as a preventative measure, similar to us getting a flu shot. If a palm is infected but the upper canopy and spear leaf seems healthy, it may be possible to achieve remission. Unlike our once a year flu shot, OTC has to be administered every three to four months for the life of the palm or until a cure can be found. Fertilizing quarterly with a slow release 8-0-12 + 4Mg palm fertilizer, along with twice yearly micronutrient sprays will help keep your palms healthy.

An ISA certified arborist can analyze and treat your palms or you can learn to do it yourself using any of several available OTC DIY injection kits. The method of injection requires drilling a hole, inserting an injection valve, mixing OTC powder with water and injecting the prescribed amount into the palm through the injection valve. Each valve is good for two injections. Subsequent injections are usually done 1" up and 4" away from a previous injection site and usually on a hidden part of the palm. Anywhere on the palm trunk (except the roots) is acceptable. It is up to the homeowner to decide (just like getting a flu shot) if inoculation is worthwhile.

Willow Water

Article and Photographs by John Dawson, Master Gardener 2007



This time of year I begin propagating many plants for our big Master Gardener plant sale in October. In researching propagation techniques, an article came up regarding the use of willow water to stimulate root growth of cuttings. I've successfully used commercial root hormone products for many years and decided to do more research into a possible non-toxic alternative to what I have been using.

Willow water is also called willow tea. Native Americans taught our early settlers to gather willow (*Salix* spp.) and brew the tea as a means to reduce minor aches and pains. Willow contains salicylic acid, a plant hormone that is the main ingredient in aspirin. It also contains another plant hormone, indolebutyric acid (IBA), which is the active ingredient of my commercial rooting hormone product. My bottle label reads: 0.1% indole-3-butyric acid, inert ingredient 99.9% (which turns out to be talcum powder). The label also has a long list of precautionary statements.

IBA is a plant hormone that stimulates root growth and development. Willows have high concentrations of IBA, which makes sense, because all you have to do to grow a willow is cut off a branch and stick it in the ground.

Salicylic acid is involved in triggering a plant's natural defenses. Purportedly, when you make willow water, both salicylic acid and IBA leach into the water and benefit the propagation of cuttings.

Concentrations of IBA and salicylic acid in willow water would depend on the concentrations contained in the original cuttings and the method of preparation.

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Willow Water

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Photo: permaculturenews.org

I tested the effectiveness of (a) willow water, (b) my commercial product, and (c) no treatment at all on cuttings of Barbados cherry (*Malpighia puniceifolia*), a plant I have found difficult to propagate. I used this recipe:

Willow Water

1. Gather live, actively growing willow branches no thicker than a pencil (any species of willow will work). Strip leaves and cut the branches/twigs into 1-inch pieces. You will need a ratio of one cup of pieces to brew one quart of tea. Willow is easy to identify by the shape of its leaves and grows abundantly in our area. Cutting a few branches will not harm the tree.
2. Place pieces into a glass jar and pour in boiling water. Steep for up to 24 hours. The liquid should turn a yellow/green/brown color with a slight medicinal odor. Strain twigs and save willow water in a glass container for up to two months in the refrigerator. A sun tea method also works but requires a longer steeping period (four to five sunny days).
3. Pour willow water into a small container (cup) and place cuttings in that container for 24 hours to allow the hormones to be soaked up by the cuttings.
4. Plant cuttings as you usually do and water with remaining willow water.

Results: I took 18 similar cuttings of Barbados cherry and prepared them by using a commercial root hormone powder on six, willow water on six, and on the last six, I used nothing. Where I planted with no root preparation, zero took root. Only one took root when applying the commercial product and two took root using the willow water. While not scientifically conclusive, the test convinced me to try willow water in future.

I use a static hydroponic system, starting the cuttings with willow water and then using the remaining willow water to fill my hydroponic basins. All 20 took root and the water remained amber in color after three weeks with no algae or slime that usually appears if I use plain water for the basins. I am surprisingly convinced.

April

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 April 14	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. Tour begins in tower parking area at 5801 17 th Street West, Palmetto. Call the Extension Master Gardeners at (941) 722-4524 to register.
Saturday April 14	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 April 21	9:00-11:00 a.m.	Extension Master Gardener Plant ID Tour - Rye Preserve - 805 Rye Wilderness Trail, Parrish 34219. Meet at Rye Preserve on the east side of Rye Road and North of Manatee River. Drinking water and hiking sticks are recommended. There are places to enjoy a picnic lunch, if desired. Register by calling the Extension Master Gardener Plant Diagnostic Clinic (941) 722-4524.
Saturday April 14	9:00-11:00 a.m.	The A-Bee-C’s of Honey - What’s the buzz on the many wonders and uses of nature’s most perfect food, honey? We will discuss everything from how and why bees gather nectar to how man processes and bottles honey. Learn how honey is used from medicine to skin care. You will have the opportunity to see and participate in the honey extraction, filtering, and bottling process. Class ends with a “honey tasting” of a variety of local honey flavors. Register on-line at http://manatee.ifas.ufl.edu or call the Extension Master Gardeners (941) 722-4524.
Saturday April 14	10:30 a.m.-Noon	Florida-Friendly Landscaping™ for Pollinators - Learn about the importance of the Florida-Friendly Landscaping™ principles, the vast array of pollinators who live among us, and the best plants and practices to employ to create a safe haven for them in our landscapes. Register on-line at http://manatee.ifas.ufl.edu or call the Extension Master Gardeners (941) 722-4524.
Saturday April 21	9:00 a.m.-10:30 a.m. or 11:00 a.m.-12:30 p.m.	Hypertufa What? Make a Fun Garden Project! With this fun and easy project, you can make your own garden containers, fake rocks, stepping stones, and decorative garden accents. This lightweight artificial stone is easy to make and has many uses. Take home the items you create in class along with the recipe to make hypertufa. Space is limited. Advance payment of \$10 for materials due April 13 and guarantees your spot in class. Check or cash only, make checks payable to Friends of Extension. Register online at http://manatee.ifas.ufl.edu or call the Extension Master Gardeners at (941) 722-4524.



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