



The Master Gardening Bench

The Manatee County Master Gardener Newsletter
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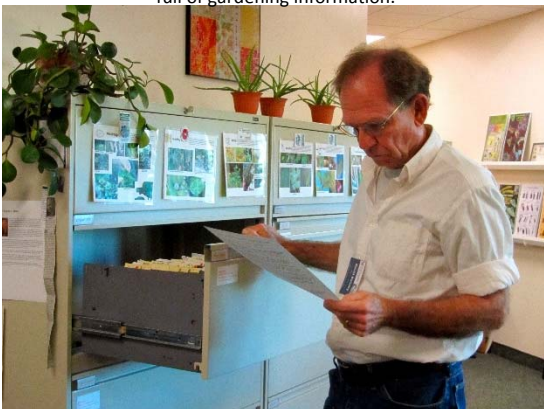
Welcome to the Plant Clinic

By Joy Derksen, Master Gardener 2004

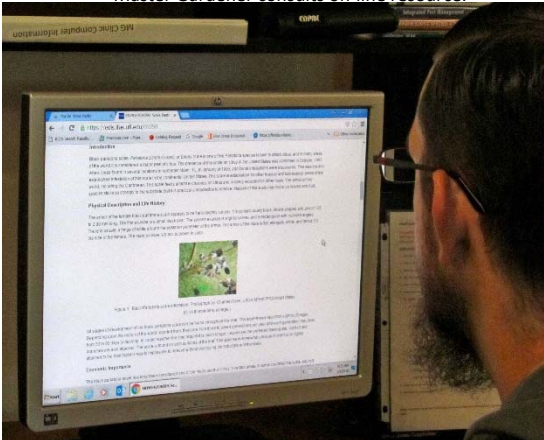
Master Gardeners identifying weeds for a client.



Master Gardener utilizing traditional filing system full of gardening information.



Master Gardener consults on-line resource.



Plant Clinic analog library.



Do you have a question about your lawn, landscaping or garden? Did you find a strange bug in your house or yard? Need a snake identified? Want to know what plants are Florida-friendly? Are you new to the area and find the natural world surrounding you very different from the one at home?

Many people do not know that Manatee County's Master Gardeners operate a Plant Diagnostic Clinic: we are here to help homeowners with their horticultural questions and problems be it in person, on the telephone or even electronically, via e-mail.

For walk-in customers (one of our favorite kind!) we are located within the Manatee County Extension office at 1303 17th St. W. in Palmetto and open Monday, Tuesday, Thursday, and Friday from 9:00 A.M. to 4:00 P.M. Here you'll find a staff of trained Master Gardener volunteers guided by Urban Horticulture Extension Agent Lisa Hickey and her top-notch assistant, Kathy Oliver.

We encourage visitors to bring samples—a branch of whatever plant appears to be having problems. We need to see a part of the plant that is ill, but not dead. This is because the insects or organisms move on from the dead area to a healthy area. If it's a lawn problem, a one foot square of turf where the problem meets healthy grass helps us diagnose the cause. We also like photos of the problem or of the area. Insects are harder to photograph and easier to pop in a jar. If you'd like a soil or water test for pH and salts, we can also help you with that. We can help you send soil to the University of Florida for fertility requirements.

When you visit, you'll find that we have a good deal of information on hand. We maintain an up-to-date reference library to help answer your questions and identify local plants, insects, and animals. Of course, we have computers we use to reference reliable scientific sites. We have a microscope that feeds into a monitor for clinic visitors so that they can see what we are looking at on their plants. Higher-powered scopes are available to us if needed. Lastly, while at the Plant Clinic, you can sign up for any of a number of fun and helpful classes and workshops for home yard and garden projects.

Master Gardeners also operate satellite walk-in clinics at Rocky Bluff Library (6750 US Hwy 301 in Ellenton) and the South Manatee Library (6081 26th St. W. in Bradenton). Hours of operation are more limited; view our calendar on page 8 of this issue.

For those of you wishing to access us by phone, call the Plant Diagnostic Clinic at (941) 722-4524 (same hours of operation apply as for walk-ins.) We can help diagnose problems based on the information you can provide and send you brochures and pamphlets on a variety of subjects through mail or e-mail.

If you wish to request advice or help electronically, visit and fill out the form located at: <http://bit.ly/AskOurMasterGardeners>. One of our knowledgeable Master Gardeners will follow up on your query.

As a higher authority, University of Florida horticultural scientists provide us with another layer of backup. If you stump us with a very strange plant, plant disease, or insect, we can email pictures of the "stumper" to UFL scientists. If they can't answer us via that method, we can actually help you send the plant or insect to the University where their experts will identify it for you.

So come and visit. Call or e-mail. Learn something new. Find an interesting class. Get help with landscaping issues. We're looking forward to meeting you!



Master Gardeners' Plant-A-Pail™ Kicks Off a Healthier New Year



Photo credits: Norma Kisida



Master Gardeners Steve Bradicich and Rebecca Moreland



Labrada Cortez helps her children plant tomatoes.



Participant Barry Murray

"It was a blast!" said Master Gardener Norma Kisida describing the first Plant-A-Pail community outreach project designed to help people grow their own fresh backyard veggies.

Twenty-five participants planted their own tomatoes in plastic buckets under the direction of Manatee County Master Gardeners in the parking lot of the Rubonia Community Center on January 20th.

Participant Cathey Matthews stated she had never planted anything before and learned a lot. Barry Murray, a former strawberry field truck driver, also found the workshop very helpful.

Lebrada Cortez was there with her four children, a nephew, and her mother, to plant five-gallon pails (adults) and two-gallon pails (for kids); she was astonished how much soil the pails held.

Kisida, along with about ten other Master Gardener volunteers, including event organizer Becky Moreland and project leader Lisa Hickey, are planning a series of other Plant-A-Pail workshops throughout the county.

Moreland explained that all materials - including plastic buckets, soil, vegetable seedlings, and instructions - are provided free of charge to communities expressing an interest in and a need for growing their own fresh produce.

The "Plant-A-Pail" project was conceived to address findings from a survey with residents (in food deserts) who wished to grow vegetables in their backyard that was conducted by the Manatee County Health Department. The project has been funded by State College of Florida in celebration of Martin Luther King Jr. Day of Service.

"There is nothing healthier than a home-grown vegetable, and nothing more rewarding," said Moreland. "Many people recall vegetable gardens growing up, and yet many youngsters have no idea where food comes from. This project benefits all ages."

The pail system ensures vegetables are properly watered, fertilized and are protected from many soilborne pests. The Plant-A-Pail is also a convenient and efficient backyard resource for harvesting fresh veggies for the table.

The project will be coordinated through neighborhood leaders. "It is not a community garden," stresses Moreland. "It is intended to reach out to individuals, so they can grow vegetables in their own backyard. One pail leads to two and then we are growing our own food right outside our doorstep."

For more information, contact Lisa Hickey, Urban Horticulture Extension Agent at 941.722.4524.



“Canna Lily” NOT be a Lily?

By Nancy Porter, Master Gardener 2014

Yes! It is a Cannaceae. Cannaceae is of the Canna Family, which are tropical flowering plants grown from bulbs. They are actually perennial herbs, related to bananas and ginger plants. Being tropical perennials, they grow quite well in hot weather and wet soils that have good drainage.

That’s a plus for locals! They flourish in rich soil that contains lots of organic matter, moisture, and full sun. However, they can handle any soil type, given moisture and proper fertilization.

The leaves of cannas are broad, flat, and alternate. The leaves are so dramatically attractive they can provide great beauty to any garden. Many experts state that placing the plants so they are backlit by the sun provides a stunning display, as the sun shines through the leaves.

The flowers, which resemble irises, are most often orange, red or yellow, or sometimes different combinations of all those colors. Some cultivars produce pink, red, white, striped, or variegated flowers. Even though we enjoy their beautiful inflorescences, they were truly designed for pollinators. Bats, bees, hummingbirds, and birds collect nectar and pollen from the colorful flowers.

Another interesting aspect of cannas is that most do not need to be trimmed after flower is spent. The new blossoms will come up inside the dead flowers.

A Florida native the golden canna (*Canna flaccida*), is often found in marshes, savannahs, wetlands and along the edges of ponds or lakes. This particular species can grow 4 to 9 feet tall. The leaves themselves, are as large as 2 feet in length and 6 inches in width.

The golden canna (also called "swamp canna") usually propagates itself through seeds, although the larger varieties cannot propagate through seeds. This species has both male and female reproductive structures. Pollination is helped along by the pollinators mentioned, as well as other small wildlife creatures. It can be easily propagated by dividing the rhizomes. There are usually 4 or 5 new shoots produced during a growing season. You can either remove them, separate and plant elsewhere, or put them in pots. It’s usually preferable to plant the rhizomes in late spring and into the summer.

There are a few pests and diseases to consider. Cannas are host plants to the Brazilian skipper leafroller caterpillar (*Calpodex ethlius*) that can be very destructive to the plant. Grasshoppers and red spider mites can also be nuisances.

One plus for the cannas is that they are relatively disease free, except for canna rust. This fungus results in the leaves having large orange spots and is caused by over-moist soil. They can also be plagued by canna-specific viruses that result in damaged leaves. If severe, the result is stunted plant growth.

Overall, cannas are relatively garden friendly, with few negative issues. They provide beautiful flowers year after year and striking foliage. They allow themselves to be planted inside and out, in large spaces, or in compact garden areas with smaller bedfellows planted nearby. Consult:

http://manatee.ifas.ufl.edu/lawn_and_garden/master-gardener/gardening-manatee-style/c/cannas-for-florida.pdf,
<https://edis.ifas.ufl.edu/fp102>, and
<https://edis.ifas.ufl.edu/in289>.



Lavender sporulation of downy mildew (*Peronospora* spp.) on lower surface of leaf. Photo by Dennis H. Hall, courtesy of UC Statewide IPM Program



Powdery mildew on upper surface of periwinkle leaf. Photo credit Deborah Mathews.



Under humid conditions the pathogen produces an abundance of dark spores as shown in this Photo credit F. Smith

Common Mildews and Molds

By Nancy Hammer, Master Gardener 2014

Downy mildew, powdery mildew, and sooty mold sound similar, but in fact are quite different, and require different methods of control.

Downy mildew is not a fungus as the name might suggest. It is more closely related to algae, and develops in water. This mildew produces fuzzy spores, and mycelium on the **underside** of leaves that range in color from purple, brown, grey to white.

On the **top** of the leaves, you might see yellow angular spots, which may turn brown. Severe infection may result in loss of leaves and the plant's death. Downy mildew favours temperatures between **45-70 degrees** Fahrenheit, and high humidity. Thus, you are likely to see this under damp, cool conditions, such as those present in Florida winters.

Plants affected by downy mildew range from vining vegetables (e.g., cucumbers, squash) to bedding plants. Impatiens have been severely hit in recent years to the point that only certain cultivars (with in-bred immunity to downy mildew) are available in local nurseries.

Powdery mildew is a fungus. You may see white to grey round, fuzzy areas on the **top**, and sometimes on the underside of the leaves. It thrives in temperatures between **68-86 degrees** Fahrenheit, and very high humidity.

In contrast to downy mildews, it does not require water. Infection can cause leaf deformity and discoloration, but generally does not kill the plant.

Powdery mildew affects ornamentals and especially certain vegetable plants. Humid, warm conditions are conducive to powdery mildew.

The best approach to controlling both powdery and downy mildew is similar to most diseases. Purchase healthy looking plants, and if available, purchase plants with disease resistance. Encourage good air circulation by giving plants plenty of room. Avoid wetting the leaves with overhead irrigation, and water early in the day to give leaves time to dry. Remove plant debris which can harbor pathogens. Fungicides are preventative so they cannot cure an already diseased plant.

At the Manatee County Extension office, sometimes clients bring in dark, discolored leaves for diagnosis. The answer may be **sooty mold** which is a fungus that grows on leaves in response to a sticky honeydew deposited by insects.

Small insects such as aphids, whiteflies, mealybugs, and scale have piercing-sucking mouthparts which they use to suck plant juices. They excrete a sweet substance called honeydew which can result in the growth of black, sooty looking mold.

The mold does not kill the plant, but heavy infestations may result in reduced photosynthesis and vigor of the plant. Sooty mold is also unattractive. The key to controlling sooty mold is control of the insects.

Carefully inspect the leaves (including the underside) for aphids, mealybugs or scale. Shake the leaves to check for adult whiteflies. For small populations of aphids or mealybugs, spraying them with a stream of water may suffice.

If you use a chemical treatment follow the label instructions. Larger populations may be sprayed with insecticidal soap sprays, or horticultural oils. The sprays, rain, and sun will gradually reduce the mold. Try to avoid the use of broad spectrum insecticides as they impact insect predators such as lady beetles.



Severe powdery mildew infestation on greenhouse-grown squash (*Cucurbita* spp.) Credit UF/IFAS



Sooty mold on holly. Credit: UF, Baker County Extension



Galls

By Joy Derksen, Master Gardener 2004

My oak tree has all these weird lumps on the stem...what's happening to my tree? Will these kill my trees? What are these weird fuzzy things on the oak leaves--is it a caterpillar, does it have a disease? Your tree probably has insect galls.

Galls are abnormal growths caused by immature insects growing and feeding inside the plant. The feeding insects chemically stimulate the plants to produce abnormal tissue much like a tumor. The gall protects and feeds the insect, until the insect matures and eats its way out. If you see a small hole in the gall, the insect has left.

Galls come in many shapes and sizes. There are hairy and blister galls on leaves, bullet and potato shaped galls on oak twigs, and apple galls on the trunk of the trees.

Among the plants affected by galls are willows, goldenrods, oaks, and asters. Galls usually do not cause physical harm to the plants, although if there are many galls, the plant might be less pleasing to look at. Dr. Buss at the University of Florida says that "chemical control is not recommended for light infestations. Prune or destroy and burn galls when possible."

There are many insects that cause galls: plant mites, aphids, plant lice, gall midges, and gall wasps. The most common in our area are gall wasps, called Cynipids. Many Cynipids like oaks and we frequently see galls on our trees.

Here are some other sources of information:

http://lee.ifas.ufl.edu/Hort/GardenPubsAZ/facts_about_galls.pdf Facts about Galls on Oaks

<http://ento.psu.edu/extension/factsheets/galls-oak> Penn State information on galls for homeowners.



Oak gall in a live oak (*Quercus virginiana*) showing bud development on the surface.



Fuzzy caterpillar-like galls on the underside of an oak leaf caused by a gall wasp.



Active oak gall with twigs growing out of it, behind is a gall from which wasps have already emerged through the little holes.

One Method to Humanely Keep Pests Away

By Amy L. Stripe, Master Gardener 2008

In colder weather, food sources become scarcer for wild critters. You may find wildlife preying on your winter veggies and fruits, digging up plants, pilfering pet food you leave for outdoor pets, tearing up the lawn, raiding your garbage bins, or growing ever bolder in harvesting whatever is left on ornamental plants.

Squirrels, raccoons, opossums, rabbits, rats, and armadillos are common year-round animals that will dine on a host of animal, insect, and plant material, sometimes even dead and decaying matter.

This summer, my outdoor night-vision camera captured four raccoons partying into the wee small hours by my open-air pool. Raccoons are notorious for dousing and defecating in pools. I was also frequently gifted with opossum scat and armadillos rooting up plants around the pool as they scabbled for insects.

My pool is fenced, not screened in, as per Florida statutory requirements. However, those provisions are not so stringent that they exclude small to medium sized mammals, particularly those used to living in urban settings, such as the culprits mentioned above.

I consulted the Florida Fish and Wildlife Conservation Commission (myFWC.com) before considering trapping, relocating, shooting, or otherwise interfering with any of these wild animals. Some are protected by law, can be carriers of diseases, or may be otherwise dangerous to handle. Also, I went to <http://edis.ifas.ufl.edu/uw371> for information on deterring nuisance wild animals.

As a result of this research, my solution was to install, inside the existing fence, approximately 100 linear feet of electric fencing. The effect was IMMEDIATE. No more nasty deposits or damage in or around the pool area.

The electric fence consists of three aluminum wire lengths threaded onto clips supported by two-foot tall fiberglass poles positioned about four feet apart. The keys to success are to keep anything from "grounding out" the fence (such as grass and weeds that might touch it, including keeping it well away from my permanent fence) and maintaining reasonably damp soil in order to create a circuit of electrical current between a critter standing on the ground while touching the fence.

The fence delivers a jolt (1,000 volts) but will not kill as there is no strength (amperage) in the shock. Think of it as a big bolt of static electricity; it only zaps. I have had butterfly chrysalises hang from the electric fence wire and emerge just fine, as well as lizards and birds alighting on same, with no adverse effect; none of them are touching the ground at the same time as the fence!

I have once - and only once - zapped myself while weeding. This is apparently a good lesson learned by four-legged as well as two-legged creatures.

An electric fence system, consisting of posts, clips, wire, and charger (capacitive discharger) will run you about \$100 to \$200 for a large garden. Keep in mind you'll need an electrical power source for the charger. Aesthetically, I can barely see the fence: the posts are green, the wires thin.

An added bit of advice to keep mammal pests away: don't leave pet food out, make sure garbage bins are tightly sealed, let nature's bounty feed the birds, and put a plant in your bird bath instead of water!

Selecting Nursery Trees and Palms

By John Dawson, Master Gardener, 2007

Congratulations, you have done your homework and researched what is the perfect tree for your landscape. Now it's time to purchase the tree or palm for your landscape. Trees and palms can add beauty and value to your property as well as provide shade and windbreaks, and in some cases provide fruit and nuts.

Since this investment will adorn your property for thirty years or more, it is essential to plan ahead and make the best choice and selection. Purchasing the best tree or palm starts with selecting a good reputable nursery staffed with knowledgeable personnel. The best choice is a local nursery that grows their own trees on site and has been in business for many years.

Trees grown locally are acclimated to the local environment, are less prone to transplant shock, and will establish themselves more quickly in your landscape than those grown elsewhere. If you feel choosing the right tree may be difficult, you can always pay a qualified, licensed, and certified arborist to select and plant it for you. If you have a fixed budget, just remember: the bigger the tree, the more it will cost, and the smaller the tree, the longer it will take to grow to your maintenance height (your vision). Once you have found a local nursery, call ahead and make sure they have what you want in stock and that they have a good selection to choose from. Choosing the right tree is not all that difficult.

Before heading out to the nursery, I suggest you first read "Selecting Quality Trees From the Nursery"

<http://hort.ifas.ufl.edu/woody/documents/EP313.pdf>, which will give you complete guidance for the selection process. The process is basically a triage of elimination.

Remember picking out that perfect Christmas tree? Start

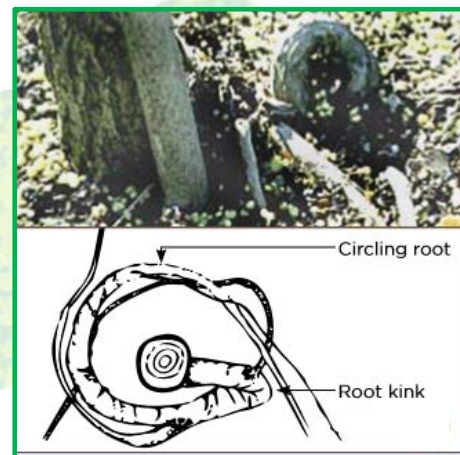
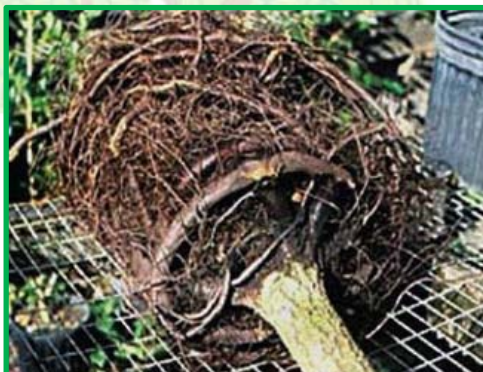
with the basic upper structure. A single leader tree should have a straight single trunk, branches should be balanced and symmetrical with attachments to the trunk at angles greater than 45 degrees. Leaners, multiple leaders, unsymmetrical branches with acute attachments should be avoided. Trees with natural multiple leaders should be open, and symmetrical with no crossing branches. Although many imperfections can be corrected through proper pruning, it is best to select a tree as free of need of correction as possible.

Trees and palms should also be free from damage, disease and pests and leaves and fronds should have good color. Since you have done prior research on the tree you wish to purchase, you should compare your vision with the tree you are selecting. If both match, you've found your tree.

It's time to check the part below the soil, the roots. The roots will provide anchoring and the pathway for nutrients for many years. You are looking for a uniform dense fibrous root system, with no circling or knotting of the roots. Do not purchase trees which are planted too deeply in their pots. A noticeable trunk flare should be visible, with no girdling of roots above the flare (roots jumping over others). Trees in smaller pots can be inspected by removing the pot. Larger trees with root problems would show problems with the upper structure if not properly potted throughout their development. Avoid sales and discounts. A good quality tree may be a bit more expensive initially, but will cost you less in lifetime maintenance costs.

Just as important as selecting the right tree is planting it properly in the right place. Please check out "Planting and Establishing Trees" <https://edis.ifas.ufl.edu/ep314> before you dig.

Encircling roots and knots.



FEBRUARY

CALENDAR OF EVENTS

Date	Time	Event
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.
Wednesday February 3	1:00-3:00 p.m.	Tillandsia – “Make and Take” Wreath Workshop - Learn about these lovely epiphytes that only require air and water to live. This is a “make and take” workshop where you will create a wreath using Tillandsia plants. Bring wire cutters and pliers. Registration and advance payment of \$35 for materials due by January 29 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 (941) 722-4524.
Saturday February 6	9:00-10:30 a.m.	Worm Composting – Vermicomposting Find out how to use worms to turn food scraps and other waste into compost. Now you can compost in an apartment, condo, or mobile home. Worms can be maintained indoors or out! Class will be held in the Horticulture Learning Center East. Register online at http://manatee.ifas.ufl.edu or call the Extension Master Gardeners, (941) 722-4524.
Saturday February 6	9:00 a.m.-Noon	Spring Vegetable Gardening - Find out what type of vegetable garden will work best for you and get it ready for spring planting! This workshop covers the basics from the ground up, including soils and amendments, plant selection, fertilizing, and pest management. Register online at http://manatee.ifas.ufl.edu or call the Extension Master Gardeners, (941) 722-4524. Limited to 75 attendees.
Saturday February 13	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 February 13	9:00-11:00 a.m.	Extension Master Gardener Plant ID Tour – DeSoto/Riverview Pointe Preserve - Stroll through DeSoto National Memorial and 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. Call the Extension Master Gardeners to register (941) 722-4524.
Wednesday February 17	10:00 a.m.-Noon	Orchid Care and Repotting - Do you have an orchid bursting from its pot and wonder what do you do now? This workshop will demonstrate the proper way to care and propagate several varieties of orchids. Bring your orchid and pruners for a hands-on exercise of dividing the orchid. We will provide you with a 6” orchid pot, potting media, and other materials to repot one orchid. Registration and advance payment of \$15 for materials due by February 10 (cash or check only, payable to Friends of Extension). Register online at http://manatee.ifas.ufl.edu or call the Extension Master Gardeners (941) 722-4524.
Sunday February 21	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. Tour begins in parking area by main entrance at 1704 99 th Street Northwest, Bradenton. Call the Extension Master Gardeners at (941) 722-4524 to register.
Tuesday February 23	1:30-3:30 p.m.	Irrigation with Water Conservation in Mind - This class satisfies the irrigation educational requirement for the Manatee County Outdoor Water Conservation Rebate Program. Tom Funari, Irrigation Technician, will focus on how to adjust your in-ground sprinkler system to conserve water, how you can repair parts, and the benefits of installing smart irrigation devices. We will have a brief discussion on Florida-Friendly Landscaping™ tips. Register online at http://manatee.ifas.ufl.edu or call Joann at (941) 722-4524.
Tuesday February 24	1:00-2:30 p.m.	Florida Backyard Landscaping for Wildlife - With the ever increasing urbanization occurring in our state, wildlife is being squeezed into smaller and fewer natural areas. This workshop can help guide you in landscaping your property to benefit wildlife while being Florida-Friendly. In addition to the increased wildlife viewing opportunities, you will be helping provide the basic needs of many wildlife species. Register online at http://manatee.ifas.ufl.edu or call the Extension Master Gardeners (941) 722-4524.
Thursday February 25	1:30-3:30 p.m.	Landscape Tips for Water Conservation - This class satisfies the landscape educational requirement for the Manatee County Outdoor Water Conservation Rebate Program. Valrie Massey, Horticulture Program Assistant, will focus on Florida-Friendly Landscaping™ tips such as right plant vs right place, watering efficiently, and the benefits of mulch. We will also discuss in-ground sprinkler systems and the benefit of installing a smart irrigation device. Register online at http://manatee.ifas.ufl.edu or call Joann at (941) 722-4524.

Coastal Systems Module: Learn about Florida’s ecosystems, the Coastal habitats, through presentations, field trips, and hands-on activities. This six-day module will provide instruction about the flora and fauna within the habitat, the impacts on the habitat, and conservation issues. Classes begin March 3 (8am-5pm) and continue on March 10, 17, 24, 31, April 7, and 12. The cost for the course is \$230 which includes all field trips, 40 contact hours of instruction, and a comprehensive student reference workbook. Register at www.MasterNaturalist.org, click on current course offerings, then Coastal Systems, then Manatee. Contact Lisa Hickey at (941) 722-4524 or lisa.hickey@ufl.edu, for more information.

UF IFAS Extension
UNIVERSITY of FLORIDA



University of Florida IFAS Extension - Manatee County

1303 17th St. W., Palmetto, FL 34221 Telephone: (941) 722-4524

Web site: <http://manatee.ifas.ufl.edu> E-mail: ManateeMG@gmail.com

