



Those Colorful Crotons

Text and photos by Norma Kisida, Master Gardener 2012



Left to right top row: Mammy, Sloppy Painter, Freckles. Left to right bottom row: Gold Dust, Petra, Mango

Crotons (*Codiaeum variegatum*) are among our most colorful foliage shrubs and are available in an amazing variety of colors, patterns, and leaf shapes. Many have colorful descriptive names such as "sloppy painter," "alley cat," "bush-on-fire," "banana," or "mango," to name just a few. They are notable for their large, bright, tropical foliage with shiny leathery leaves.

Crotons are slow growing, commonly 3-8 feet high and 3-6 feet across. They can be easily maintained at the desired height by pruning which is a good characteristic since so many of our shrubs grow quickly out of control without frequent trimming. They are great as an accent, foundation, or container plant, and are also used as houseplants. Because of their evergreen and colorful foliage, crotons also have winter interest. The cut branches hold up well and add color to flower arrangements.

Most crotons do best in sunny locations with light shade. The amount of sun they receive can affect the leaf colors, patterns, and shapes. Light that is too bright can cause sunburn and color fade, while too much shade can cause them to lose color and become leggy. They tend to tolerate more sun as they get older and more established. All the commonly available crotons shown in above photos do best in full sun to part shade, are slow growing, grow to 3-6 feet, and are easily maintained at the desired height.

Crotons tolerate a variety of well-drained soil and have moderate drought tolerance but will show stress by drooping or dropping leaves if dry conditions are severe. Crotons are cold sensitive and should be protected during frost or freeze conditions unless they are in a sheltered location. If cold damage occurs they will usually recover if pruned after the cold season has passed.

Plant spacing should be 24 to 36 inches apart. They are easily propagated from cuttings. Although usually pest- and disease-free, mealy bugs, scales, mites, thrips, and fungus can be a problem. For crotons growing outdoors feed with a slow-release fertilizer in the early spring and again in fall after our county's fertilizer ban has passed.

One caution is that crotons are considered toxic to humans and animals if ingested and have a milky sap that can stain or cause skin irritation.

For more information on croton varieties and culture:

Codiaeum variegatum:

http://hort.ifas.ufl.edu/database/documents/pdf/shrub_fact_sheets/codvara.pdf

Croton Society online reference:

www.palmpedia.net/wiki/CROTON_ONLINE_REFERENCE.

Eds. note: "Picasso's paintbrush" is a favorite croton of ours!



Dodder...A Weedy Vampire

By Joy Derksen, Master Gardener 2004



Have you ever seen a plant covered with what appears to be a fishnet of yellow vines? Then, you have met the odd weed known as dodder. The more you learn about dodder (*Cuscuta spp.*) the odder it seems. Dodder is a native vine that grows from a seed. While I have seen only the yellow and yellow orange form of the plant, it also comes in pink and red.

When it first comes out of the ground, dodder has leaves to make its food. But the new seedling must find a host within a few days or it will die. The vine stretches toward a host plant and twines around the host stem in a counter-clockwise direction. Once it secures itself on the host plant the dodder's root system and leaves wither away. Since the dodder is no longer connected to the ground and doesn't have leaves, it invades the unfortunate host plant's tissues with adventitious root-like projections called haustoria.

The haustoria suck up water, minerals, and carbohydrates from the host plant. The dodder is now a total parasite that will stunt and sometimes kill the host. Farmers and gardeners through the years have given the plant a few choice common names: "strangle weed," "devil's guts," "devil's hair," "hellbine," and "hairweed." Besides consuming your plant, dodder has been found to carry bacterial diseases.

One of the more odd features of dodder is that it seems to move toward host plants that it likes the most. It really likes tomato plants. Laboratory test have proven that

dodders will reach in the direction of the scent of the plant even when no plant is there. This plant has a sense of smell! A single dodder can invade several plants, feeding on all of them at the same time! One expert suggests, "A field smothered in dodder looks like it has been attacked by Silly String". There is a PBS video demonstrating this interesting ability:

<http://www.pbs.org/wnet/nature/what-plants-talk-about-video-dodder-vine-sniffs-out-its-prey/8234/>.

Despite not having leaves, dodder makes tiny flowers that produce a large number of seeds. These seeds stay dormant until the next growing season when they sprout and look for suitable victims. If no host plant is available, dodder seeds can remain dormant for 5 years.

How do you control dodder? You can't separate dodder from the host plant once it attaches to the plant's veins. You can kill them both by using a 2,4-D contact herbicide. You must remove the host with the dodder on it and put it in a trash bag. Hopefully, you do this as soon as you catch sight of it, before dodder flowers and seeds. The host plant with dodder on it cannot go into your compost! Getting rid of the seeds is even more difficult, as you will need to apply a pre-emergent herbicide like DCPA (Dacthal) before the next growing season.

More information is available from:

<http://charlottecountyextension.blogspot.com/2015/04/nothing-odder-than-dodder.html>, or
<http://ipm.ucanr.edu/PMG/PESTNOTES/pn7496.html>.

Pollen Allergies

by Amy L. Stripe, Master Gardener 2008

Just about anything that produces pollen gives me so-called hay fever, the itchy-eyed, itchy-mouth, sneezy, dopey-headed misery that makes my head feel 10 pounds heavier and my eyes look like I've never slept. Which I haven't. Welcome to Florida, allergy central!

Plants that do not rely on insects, birds or bats for pollination are more likely to be the cause of your seasonal allergy miseries. That's because these chaps (yes, they are the male flower parts or the males of the species) produce pollen prolifically in order to ensure dispersal via wind, a less reliable form of successful fertilization than an insect pollen carrier, for example. Take a big breath of fresh air around these plants at the right time of year and you're sneezing!

And interestingly, "monoecious" plants - those with male and female flower parts on the same plant, are also big allergy culprits. This is because they are largely wind pollinated (but not always), and you cannot plant just the female of the species (no pollen) separate from the male (pollen-bearer) as with "dioecious" (single-sex) plants.

Of course, it is almost impossible to tell male from female in dioecious plants until they bloom. Many dioecious plants are huge producers of allergens, such as the female junipers (*Juniperus* spp. but often called by the common name "cedar.") In fact, many of the least conspicuous plants in terms of bloom (think trees) are the biggest sources of the most common allergens. Showy, flowering plants, despite an overabundance of pollen, are the least likely culprits of your allergy symptoms. They are visited by pollinators.

There is a plant allergy scale developed by Thomas Ogren called OPALS. It takes into consideration pollen amount, potency, bloom period, size, and stickiness.

The top Florida trees / shrubs on OPALS are: maple, cedar (juniper), wax myrtle, bay, oak, elm, pine, cypress, podocarpus, and sweet gum. Grasses and weeds also come in high on the scale, including ragweed and bermudagrass.

Unfortunately, any given plant above will be pollinating at any given time of the year in Florida. Your best bet is to get tested to determine your worst allergens and limit your time outdoors when your culprit is pollinating. In my case, this would be NEVER since I am highly allergic to oaks (typically pollinating February through August,) junipers (February through June, and August to November,) and podocarpus (February through August.) Anti-histamines and tissues in hand, I nonetheless venture forth into the landscape almost every day of the year.

For more information visit

<http://edis.ifas.ufl.edu/fr268> and

<http://www.missouribotanicalgarden.org>



Bermudagrass



Juniper



Live oak pollen on sidewalk

Children's Garden and Nature Programs

By Nancy Hammer, Master Gardener 2014 ~ Photos: Lois Panner, Master Gardener 2015



The Manatee County Master Gardeners (MG's) are pleased to introduce garden and nature programs for children's groups at our award winning educational gardens on the grounds of the Manatee County Agriculture and Extension Service in Palmetto. MG volunteers have been busy in the children's garden planting plants that will appeal to the younger set and painting and decorating with bright, fresh colors.

We are excited to share our efforts with school, family and church groups, clubs, preschools, and scouts. Our kid-friendly programs are free of charge!

We invite groups between the ages of 4 to 12 to join us for programs on bugs, butterflies, flowers, worm composting, leaves, and mini-container gardens. Programs include instruction geared to various grade levels, as well as fun hands-on activities or crafts.

In addition to exploring the beautiful children's garden, groups will be invited to tour the butterfly and vegetable gardens, the wetlands, fruit trees, and sundial. We promise an educational and fun hour in fresh air!

Our volunteers are available for one-hour presentations between 10:00 A.M. and 3:00 P.M. Monday through Friday. We request groups have 5 to 15 children in attendance. Chaperones are required.

Here are highlights from just a few of our programs:

Bug Out introduces children to bug body parts and the role of bugs in nature, identifies bugs in the garden, and teaches fun facts about bugs. Children create a craft to reinforce bug anatomy. Grades K-2, but flexible.



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Mini Container Gardens introduces children to parts of a plant, the importance of plants, and plant care. They will complete a plant-parts handout, and create a small container garden with a plant and embellishments to take home. Suitable for grades K-2, and 3-5, but flexible.

Butterfly Life Cycle teaches children the life cycle of a butterfly and includes a craft. Age group Pre-K to K, Grade 1-2.

Parts of a Flower teaches children how to identify and describe the basic parts of a flower, and the function of each part, as well as a basic understanding of pollination. The program also touches on the elements a plant needs to survive and includes a craft. Age group Pre-K to 2nd grade.

Worm Composting teaches children how red wiggler worms turn food scraps into compost (worm castings). There is the option of building a small take-home worm bin. Age group Pre-K to 1st. 2nd-4th.

Leaf Collection is a sensory program, encouraging children to observe the differences in leaves by size, shape, color, texture, smell, taste, and even sound. This program also touches on how leaves help the plant by making food. Includes a take-home craft. Age group Pre-K to 1st.

Lois Panner, MG coordinator of the Children's Garden Program says, "We believe that the best way children can learn about gardening and nature is through hands-on activities and experiences. Our Master Gardeners enjoy putting together fun programs for the children, and with no shortage of topics that we can teach the children, additional programs are being planned."

For more information or to schedule your group, please telephone (941) 722-4524 and ask for Kathy Oliver, Program Assistant, Urban Horticulture.





Photo credit: <https://en.wikipedia.org/>

Sprouting Spuds You Can Grow Potatoes!

By Kathy Oliver, Program Assistant, Urban Horticulture

The Board of County Commissioners recently designated December 14, 2016 as Alan Jones Day in Manatee County. Mr. Jones has won environmental and leadership awards for his sustainable and innovative business practices. What does he do? Alan Jones is a potato farmer; much of his product is destined for the processing plants of Frito-Lay. Potatoes are big business here, but you can grow them on a smaller scale at home.

The Irish potato, *Solanum tuberosum*, is a cool-season tuber crop generally planted in January and February in Central Florida. These plants can take cool, but not freezing, weather. Potato varieties recommended for our area include 'Red Pontiac,' 'Yukon Gold,' and 'Gold Rush.' The sweet potato, *Ipomoea batatas*, is a tropical vine best grown in summer and will not be addressed in this article.

Purchase certified seed potatoes from a reputable supplier. Although potatoes from the grocery store will grow, they may carry harmful diseases or be treated with sprouting inhibitors. It is also difficult to determine if a store-bought one is the correct variety for Florida. Divide the seed potato into egg-size pieces that contain one or more sprouting eyes, and allow the pieces to dry for several days to harden the cuts before planting.

Potatoes grow well in sandy soils amended with organic matter. Plant them in hills or beds 10-12 inches above soil level to avoid any flooding around the roots. Mound soil around the plants as they grow to keep the tubers underground and away from light. Light causes the potatoes to turn green and inedible.

Stacked tires, grow boxes, or even five-gallon buckets are suitable for growing potatoes as long as they drain well and have adequate space for mounding soil.

Take care to maintain soil moisture around the plants without being too wet or dry. Overwatering may lead to disease, rot, and loss of fertilizer. Potatoes are heavy feeders; apply fertilizer at planting and again when the shoots reach 6-8 inches in height. A soil sample may be sent to the Extension Soil Testing Lab (<http://soilslab.ifas.ufl.edu/ESTL%20Home.asp>) at University of Florida for fertility testing and fertilizer recommendations, or follow general recommendations in the Florida Vegetable Gardening Guide <http://edis.ifas.ufl.edu/vh021>. Keep an eye out for leaf-feeding insects such as beetles, aphids, and leafhoppers.

Potatoes are ready for harvest 80-115 days after planting or two to three weeks after the mature plant dies off. Home gardeners can simulate the die-off process by cutting the green tops. The tubers will continue to mature for several weeks by developing a tough skin. Carefully dig the potatoes with a spade or turning fork, and remove the roots before storing in a cool, dark, well-ventilated location for 10-14 days. Be sure to discard any damaged or green potatoes prior to storage.

For more information on vegetable gardening, come to our free class, 'Spring Vegetable Gardening,' on Saturday, February 18 at 9:00 am. To register, [click here](#).

Resource: Growing Potatoes in the Florida Home Garden <http://edis.ifas.ufl.edu/hs183>.



"Ate" Tiny Reindeer: New World Screwworm in South Florida

By Andrew Derksen, Invasive Species Biologist, USDA

Florida's latest alien invasion was first detected on September 29th, 2016, when an endangered Key deer stumbled out of the forest near Big Pine Key at the National Key Deer Refuge in Monroe County. It looked like something out of a zombie movie, its head was a torn mess of weeping wounds and squirming maggots. Park biologists were mercifully forced to euthanize it. This was the first sign of the return of New World screwworm, the only insect whose larvae are known to consume the living flesh of mammals. Screwworm is called such because the maggot's body-ridges superficially resemble the threads on a screw, and perhaps because of the pain they cause as they burrow deeper into tissue. Their scientific name, *Cochliomyia hominivorax*, literally translates to the "spiraling fly that devours men".

This latest invader joins other unwelcome South Florida pests like the mosquito-vectored diseases Zika and dengue; giant African snails; and reptiles like pythons and tegus. Over 135 endangered Key deer have already died either from fly-infected wounds, or because they had to be euthanized by park managers. Screwworm had not been seen in the United States since its successful eradication in the 1960's. It poses a grave threat to the livestock industry in Florida, a commodity worth well over a billion dollars to the state. It also poses a significant threat to human beings and house-hold pets, as we are all just more meat on the plate for the worms.

The adult female screwfly appears superficially similar in shape and size to a typical house fly. She ranges from metallic blue to grey with large orange eyes, and has three black stripes running down the middle of her back. She prefers to lay eggs in neat rows near the site of an open wound, but if an animal is uninjured, she will lay her eggs near the soft tissues of the eyes, nose, or ears. She will lay hundreds of eggs at a time, and thousands over her lifetime. The eggs hatch a day later and the larvae begin to chew with two curved hooks, working their way into delicate tissues. The wound will begin to ulcerate and expand as the maggots tunnel into muscle, fat, and skin. As the larvae grow in size, the wound will split, exposing the infected animal to bacterial infection. It will smell sour and ooze blood. With the bacterial infection, animals will begin to run a temperature and seek out isolated cool and shaded areas. The animal will stop eating and may stop feeding any offspring. If not treated, septicemia may kill the host in a week or less. The larvae will

then drop off into the soil, pupate for several days, and emerge as flies ready to begin the cycle again.

Fortunately, the Florida and United States Departments of Agriculture have a solution. This is the tried-and-true "sterile fly" technique. It exploits a vulnerability in these flies' reproductive systems, as the females can mate only once. Millions of maggots are reared in a secure lab, the female pupae are screened out and destroyed, and the males are sterilized using a focused dose of radiation. These neuter males will develop normally and attempt to mate with females, but her eggs will remain unfertilized and no brood will result. The mass-reared males are air-dropped over an infested area, and because they outnumber wild males, a decreasing proportion of females will find a healthy mate in each generation. The continual release of sterile males will eventually result in a population crash, and the flies will be eradicated.

This program was first developed in 1957 just off Sanibel Island, and it managed to eradicate most populations of the fly across the American south a little less than three years later. The whole southwest followed by 1962, and collaborations between the United States and Mexico began in 1966. Populations of the fly were pushed back out of Central America as far south as Panama by the early 90's. The fly remains established throughout northern South America, and five Caribbean nations.

Over eighty million sterile males have already been released since the program's inception, but we must remain vigilant! Screwworm maggots were collected from a stray German shepherd in Homestead in the southern part of Miami-Dade County on January 6th, 2017. Twice in the last ten years, private veterinarians identified screwworm larvae in pets recently brought into the country from South America, and this is probably how the infestation began in the Keys. Watch your pets and livestock for symptoms! If you have suspicions that your livestock or pets have screwworm, contact a veterinarian immediately. If you suspect that you have been infected with screwworm, contact your physician immediately. If you think you have observed animals infested with screwworm, call "1-800-HELP-FLA", or visit the FDACS website and [submit a report online](#):

<http://www.freshfromflorida.com/Divisions-Offices/Animal-Industry/Consumer-Resources/Reportable-Animal-Diseases/New-World-Screwworm>

Missed an Issue? Researching a Topic? - *The Master Gardening Bench* Index 2015 & 2016

"The Master Gardening Bench" is a valuable reference resource, but it is of little value to our readers if they cannot easily locate a past article they remember seeing, or even missed reading. An index of 2015 and 2016 articles with links is accessible at http://manatee.ifas.ufl.edu/lawn_and_garden/master-gardener/mg-hot-topics.html

February CALENDAR OF EVENTS



Date	Time	Event
3 rd Tuesday of each Month	10:00 a.m.	Monthly Guided Tours of the Master Gardener Educational Gardens - Join us for a guided tour lasting about one hour. The gardens illustrate a variety of garden styles and techniques, demonstrate Florida-Friendly Landscaping™ principles, educate residents about plants that perform well in Florida landscapes, and inspire garden visitors to follow recommended gardening practices at home. Register by calling the Master Gardener Plant Diagnostic Clinic (941) 722-4524.
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 4	9:30-11:00 a.m.	Rye Preserve Nature Hike - Join the Florida Master Naturalists on a hike to visit the historical homestead of the original European decedents of the Rye family (1861). The hike will include the homestead, the nature center, and a stroll through the local flora and fauna. Drinking water and hiking sticks are recommended. Meet at Rye Preserve on the east side of Rye Road and north of Manatee River. There are places to enjoy a picnic lunch if desired. Call the Extension Master Gardeners to register, (941) 722-4524.
Monday February 6	6:30-8:00 p.m.	Invasive Plants - Beware! Many common yard plants are actually alien invaders. These non-native, invasive species have thrived throughout Florida, threatening native vegetation and the wildlife on which it depends. Learn how to identify key invasive species, the threats they pose to native vegetation and wildlife, and how they can be prevented throughout the landscape. Register online at http://manatee.ifas.ufl.edu or call the Master Gardeners, (941) 722-4524.
Saturday February 11	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 Master Gardeners at (941) 722-4524 to register.
Saturday February 11	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 18	9:00 a.m.-Noon	Spring Vegetable Gardening - Find out what type of vegetable garden will work 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 Master Gardeners, (941) 722-4524.
Saturday February 18	1:00-3:00 p.m.	Orchid "Make and Take" - A "make and take" workshop where you will mount a <i>Phalaenopsis</i> orchid on a piece of wood. Learn about these beautiful epiphytes and how they can enhance your home and landscape. Registration and advance payment for materials due by February 8 (cash or check only, payable to Friends of Extension). Register online at http://manatee.ifas.ufl.edu or call the Master Gardeners, (941) 722-4524.
Sunday February 19	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. To register call the Master Gardeners (941) 722-4524.



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