



A quarterly online magazine published for Master Gardeners in support of the educational mission of UF/IFAS Extension Service.

The Friends of Brooker Creek Preserve Go Native

By Evan Earle, Jr., Master Gardener

Every quarter, the Friends of Brooker Creek Preserve conducts our "Return the Preserve Work Day". Our projects focus on removing invasive exotic plants such as caesar weed, skunk vine, pepper vine, and St. Augustinegrass or removing unnatural overgrowth of grape vines and cat briar. Each project is a step towards helping the preserve return to its natural environment and beauty. All this is possible because we have the best volunteers in the county. Hard working people of all ages and backgrounds are willing to donate a Saturday morning (Psssst, if you are looking for a hands on volunteer opportunity that is lots of fun, please join us. Work days are usually the third Saturday in January, April, July, and October). On Saturday, July 21, 2018, we had a special project. Instead of removing plants, we installed a wonderful assortment of plants. The best part? They were all Florida natives, representative of plants found naturally in the Brooker Creek Preserve environment.

We planted 335 plants in all including:

- *Licania michauxii* (gopher apple)
- *Pityopsis graminifolia* (narrowleaf silkgrass)
- *Dyschoriste oblongifolia* (twinflower)
- *Berlandiera subacaulis* (Florida greeneyes)
- *Carphephorus corymbosus* (Florida paintbrush)
- *Elephantopus elatus* (elephant foot)
- *Yucca filamentosa* (ear grass)
- *Eryngium yuccifolium* (button snakeroot)
- *Hypericum tenuifolium* (formerly *H. reductum*, Scrub St. John's-wort)

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Planting area. Photo Credit: Evan Earle, Jr.

Thanks to nine wonderful volunteers, we had everything planted in two hours! A shout-out to "Keep Pinellas Beautiful" for providing shovels, gloves, coolers, and reusable water bottles to make our job easier.

The planting is at the entrance of Brooker Creek Preserve. It's as though it's our welcome sign! As the plants become established, they are not only going to enhance the beauty of this part of the preserve, but provide food and habitat for a myriad of the Preserve's residents.

Please visit Brooker Creek Preserve and check out this latest addition as well as everything else the preserve has to offer. It is our wildest place!



Some of the Plantings

Top left: Gopher apple. Top right: Button snakeroot.

Bottom left: Florida greeneyes. Bottom center: Twinflower. Bottom right: Narrowleaf silkgrass

Photo credits: UF/IFAS

11 Ideas for a Low-Care, Low-Cost Landscape (Part 2) (Based on the Article by Gail Hansen, UF/IFAS) By Debi Ford, Master Gardener

The last issue included part one of this article with 11 tips to achieve a beautiful garden without spending lots of time and money. Here is part two with 11 more tips.

1) Consider the following when selecting garden structures and ornaments

- With structures, the garden will always have edges and mass to frame the plant material. This provides a finished look regardless of the seasonal condition of the plants.
- Use hardscape and structures to maintain the structure and spatial organization of the garden as the plants change through the seasons and years.

2) Use overhead structures to provide shade

- Arbors, pergolas, and trellises create shade in areas where trees would result in a maintenance problem with dropping leaves and twigs.
- Overhead structures are also useful in areas where trees should not be located, such as close to buildings and utility lines.

3) Use containers and planters in plant beds and on patios and decks.

- Containers add low-care, year-round color and texture to the garden.
- Pots on patios and decks should have only one or two long-blooming or foliage plants for easy care.
- Containers in plant beds provide color and contrast with or without plants.
- Remember that containers need more frequent watering, so have a water source such as a rain barrel nearby.



Left: A container of mixed annuals and perennials add color.
Right: An arbor.
Photo credits: UF/IFAS



4) Use garden ornaments

- Elements other than plants add color and texture to the garden. Maintenance usually requires no more than an annual cleaning.
- Most ornaments also serve a functional purpose as well, such as providing support for plants or homes for wildlife.
- Brightly painted birdhouses or bird feeders add a splash of color. Trellises add texture and pattern.
- Carefully select larger ornaments appropriate for the design theme. Avoid scattering many small, unrelated ornaments around the yard.

5) Select outdoor furniture with color and texture

- Include rugs, curtains, and pillows to make a patio or porch more interesting and inviting.
- The patio furniture can set the style theme for the landscape, showing your personal style and color preferences.
- Use durable outdoor materials and fabrics that are easy to clean.

6) Choose easy-to-clean materials

- You can sweep natural stone and other hardscape to save water.
- Plastics and metal are durable and have easy-to-clean surfaces.
- Shading a wood deck with a pergola or awning helps preserve the wood from water and sun damage.
- Composite wood is durable and does not require annual sealing or painting.

7) Use several small patios or seating and relaxation spaces.

- Small, open areas organize the yard into functional spaces, and the surface materials require little care.
- Bricks, pavers, stone, and gravel are durable and long lasting.
- Ensure permeability by laying the pavers and stone on a sand and gravel bed over filter fabric that allows water to drain.



Left: A whimsical wooden structure. Center: Outdoor fireplace with a wrought iron chair. Right: A bench along a garden path.
Photo credits: Left and right, Gail Hansen. Center: UF/IFAS.

8) Use garden walls, low fences, and pathways.

- Short garden walls and pathways between plant beds provide structure. They create space and separate beds for a neat look.
- Low retaining walls separate beds as well as allow level changes that prevent erosion problems.

9) Build in planters around decks and patios.

- Planters with short walls of bricks or stacked stones contain plants and mulch, keeping them off the deck or patio.
- Planters make it easier to water and trim the plants from the deck or patio.
- Plants are often healthier in raised beds where you can use a good soil mix and treat weeds and pests more easily.
- Planters and raised beds also provide a variety of heights and patterns to separate and organize spaces.

10) Reuse and repurpose materials.

- With creativity and imagination, you can reuse many materials—either selecting a different form for the same purpose or repurposing for a different function.
- Commonly reused materials include broken concrete from an old patio or driveway and concrete or metal pipe sections.
- Old garden gates and fences, wheelbarrows, and vintage sinks and buckets also make useful garden features.

11) Hide or disguise unattractive areas

- Some areas of the garden may be difficult to maintain despite your best efforts.
- You can screen unattractive dog runs, blank walls, and work areas with a fence, lattice, or vines on a trellis.
- Low garden fences or walls can effectively hide areas where plants are difficult to grow or where utilities are located.
- Use large rocks, stone pathways, garden structures, and dry streambeds to cover bare spots.

References:

Twenty-Two Ideas for a Low-Care, Low-Cost Landscape, Gail Hansen. <http://edis.ifas.ufl.edu/ep442>

EDIS publication *Landscape Design: Aesthetic Characteristics of Plants* <http://edis.ifas.ufl.edu/ep433> for more information on using color and texture in the landscape.

Arbor, Trellis, or Pergola—What's in Your Garden? A Mini-Dictionary of Garden Structures and Plant Forms. <http://edis.ifas.ufl.edu/ep432>

The Florida-Friendly™ Guide to Plant Selection and Landscape Design. http://fyn.ifas.ufl.edu/pdf/FYN_Plant_Selection_Guide_v090110.pdf

Fun Facts about Butterflies and Moths

By Ellen Mahaney, Master Gardener

Along with moths, butterflies belong to the Lepidoptera (Lep-i-DOP-ter-a) Order, comprised of scale-winged and scale-bodied insects. These tiny overlapping scales create the colors and design of each species. They also provide thermoregulation, camouflage, pheromone dispersal to attract mates, and species and sex recognition. Even though these insects may lose scales throughout their lifetime, they can still fly. Both moths and butterflies have a coiled proboscis for seeking and sipping nutrition. Both experience complete metamorphosis.

Contrasting Characteristics of Moths and Butterflies

- Moths generally are nocturnal; butterflies diurnal
- Moths generally have a duller appearance; butterflies are more vividly colored
- Moths tend to rest with their wings at their side; resting butterflies often hold their wings vertically over their backs
- Moths have thicker, hairier bodies; butterflies have slender, smoother bodies
- Moths' antennae have feathery endings; butterflies' antennae have knob ends
- Moths spend the pupa stage in cocoons; butterflies in chrysalides

Characteristics of Butterflies

- Generally live about two weeks in the adult stage
- Smell with sensors on their feet and antennae
- Dine on fluids, commonly flower nectar, although a few species prefer dung, rotting fruit, sap, bird droppings, and carrion
- Males replenish sodium ions lost during mating at nourishing puddles
- Evade predators through erratic flights due to slender bodies with disproportionately large wings
- Bask in the sun to absorb solar radiation to reach the temperature needed to fly



Left: Monarch butterfly
Right: Destructive Tropical
Sod Webworm Moth
Photo credits: UF/IFAS



Seeking a Green Thumb? Grow Some Herbs

By Janis Rosser, Master Gardener

Think you don't have a green thumb? Think again. Hundreds of edible and flowering plants, known as herbs, have inhabited our planet for at least 5,000 years. They are fresh to the taste, wonderfully aromatic, a culinary delight, and easy to grow, particularly in our warm Florida weather.

A good example is basil (*Ocimum basilicum*). Known as the kingly herb for its many uses, it sports a shiny green leaf with a scent of mint. As any cook knows, it enhances pastas, entrée dishes with tomatoes, and salads. It is also a superb garnish.

The word basil originates from the Greek word *basilikon*, translated as royal or kingly. Though considered a Mediterranean herb, it originated in India approximately 5,000 years ago. Early traders brought it to the Mideast. Eventually, it made its way to our shores.

Basil has carried diverse cultural and symbolic meanings throughout history. For instance, in India, basil was a sacred herb—burying someone with a leaf would be his or her passport to heaven. In Portugal, basil plants were part of a gift to a lover on religious holidays. In ancient Greece, basil symbolized hatred but in Italy, it symbolized love and fertility. A more modern myth says that if you put a leaf in your wallet, it will attract money. (I tried and it is not so!)

Earning a green thumb is easy when growing basil. It flourishes either in the ground or in pots placed in a sunny window. You can grow it from seeds or plants. It needs six hours of sunlight and regular watering. No fertilizer is necessary but beware that it shrivels up if cold. Keep it snipped so that it will be healthy and bushy.

Your efforts in growing this ancient world herb will reward both you and your palate.

Reference:

<http://greekerthanthegreeks.blogspot.com/2016/09/12-important-aromatic-herbs-of-ancient.html>



Basil. Photo credit: UF/IFAS.

Where Have All the Flowers Gone?

By Jane Morse, UF/IFAS Extension Agent, Pinellas County

Ponce de Leon named Florida in 1512. "*La Florida*," he called this land, Spanish for flowery, covered with flowers, or abounding in flowers. Yet our landscapes of today are mostly green masses of foreign lawns, shrubs, and trees. It brings to mind the song, "Where have all the flowers gone?"

Development practices have taken away Florida's flowers and native ecosystems. Development occurs by clear-cutting an area and removing every living thing. Fill dirt is brought in and packed down in preparation for building. Plants from foreign countries (exotic) replace native ones; large expanses of ground become lawn. Our native wildflowers that grow without fertilizer, pesticides or extra water become "weeds" in these newly planted lawns.

To support these lawns, shrubs, and trees we use vast amounts of resources and expose ourselves to many toxins and stresses.

Stinky, gas-powered lawn mowers and garden equipment emit high levels of toxic and cancer-causing pollutants, including carbon monoxide, carbon dioxide, nitrogen oxides, and particulate matter (National Emission from Lawn and Garden Equipment (EPA) <https://www.epa.gov/sites/production/files/2015-09/documents/banks.pdf>). These pollutants can cause emphysema, chronic bronchitis, lung cancer and heart disease (https://www.huffingtonpost.com/entry/what-air-pollution-does-to-your-body_us_5a1a7f47e4b064948074da5f).

Lawn mowers, blowers and weed whackers destroy peaceful settings as well as people's sleep. Research shows that environmental noise pollution can result in serious health effects (<https://www.science.org.au/curious/earth-environment/health-effects-environmental-noise-pollution>). Exposure to prolonged or excessive noise causes a range of health problems ranging from stress, poor concentration, and fatigue from lack of sleep, to more serious issues such as heart disease, brain damage, tinnitus and hearing loss.

Spraying lawns is common. There is strong research linking pesticide exposure to several types of cancers including non-Hodgkin lymphoma, leukemia, solid tumors, brain and prostate cancer (<https://www.ncbi.nlm.nih.gov/pmc/articles/PMC2231435/>). Pesticides sprayed on landscapes can get into our water from rain carrying it down in the soil or from runoff. Spraying insecticide damages or kills wildlife including pollinators and other insects (<http://edis.ifas.ufl.edu/in881>).



Large expanses of lawn replace native wildflowers and ecosystems.
Photo Credit: UF/IFAS

Irrigation systems, hoses, and sprinklers transport lots of water to keep large expanses of wrongly chosen plants alive. We are using more water than is replaced naturally, draining our aquifer (our source of drinking water). Removing too much fresh water allows salt water to seep in to fill the gap.

Gas and oil spills from lawn equipment pollute our water. Estimates vary, but it's likely Americans burn more than 600 million gallons of gas a year cutting grass. The EPA estimates at least 17 million gallons of gasoline are spilled annually just *filling* lawn mowers.

Not only are we using up resources and exposing ourselves to toxins, we are starving and killing our native animals.

Foreign (exotic) plants are poor providers of food for native wildlife. Lawns are like an asphalt parking lot to them. Native birds are starving to death because we have taken away their main food source—insects (Dr. Doug Tallamy: "Creating Living Landscapes to Restore Nature's Relationships" <https://www.youtube.com/watch?v=HbsAAwpP34E>).

In North America, we have 915 bird species. Of these, almost half are "at risk of extinction". In the U.S., we have 1.5 billion fewer breeding birds compared to 40 years ago. Forty-six species have lost half of their population. <https://www.theglobeandmail.com/technology/science/report-finds-north-american-skies-quieter-by-15-billion-fewer-birds/article31876053/>; <https://www.scientificamerican.com/article/more-than-a-third-of-north-american-bird-species-in-danger-without-urgent-action/>; <https://blogs.scientificamerican.com/extinction-countdown/north-american-birds/>

We can change for the better. Here are a dozen things we can do to change our landscapes to promote health and our well-being as well as support our native plants and animals.

- First, determine your site conditions (dry, wet, seasonally wet; sun, part sun, shade, etc)
- Use native plants that match your site conditions. You can find native landscape plants at the Florida Native Plant Society website (<http://www.fnps.org/plants>). You can see which plants provide the most food value for wildlife at <https://www.nwf.org/NativePlantFinder/>
- Plant a wildflower meadow (<http://edis.ifas.ufl.edu/in1180>). This provides lots of food for many birds, pollinators and animals. Wildflowers don't need extra water, fertilizer or pesticides



Left: Seaside goldenrod (*Solidago sempervirens*). 82 species of butterflies and moths use this as a caterpillar host plant. Photo Credit: UF/IFAS
Right: Wildflower meadow replaces a lawn. Photo Credit: Agi Kehoe, UF/IFAS



- Remove all invasive species such as Brazilian pepper, carrotwood, Australian pine, Lantana camara, and Mexican petunia
(http://sfyl.ifas.ufl.edu/archive/hot_topics/environment/invasive_plants.shtml)
- Replace foreign (exotic) plants with native plants.
- Stop or greatly reduce spraying pesticides, especially insecticides, in your landscape
(<https://www.epa.gov/safepestcontrol/integrated-pest-management-ipm-principles>)
- Replace bird feeders with plants that support caterpillars. For a list of plants and the number of caterpillars they support visit <https://www.nwf.org/NativePlantFinder/>
- Add a birdbath or pond (<http://gardeningsolutions.ifas.ufl.edu/design/gardening-with-wildlife/providing-water-to-wildlife.html>).
- Ask nurseries and big box stores to supply Florida native plants.
- Keep cats indoors (<https://www.peta.org/features/keep-cats-inside/>).
- Talk to your government representatives about preserving and increasing natural areas and providing wildlife corridors. Ask them to change landscape codes to require mostly native plants and allow for wildflower meadows. Ask them to plant wildflower meadows instead of lawns at government buildings.
(<https://hq-salsa.wiredforchange.com/o/5950/getLocal.jsp>)
- Contact your local UF/IFAS Extension Service for information and answers to your landscaping questions. (<http://sfyl.ifas.ufl.edu/pinellas/lawn-and-garden/>) and
(<http://sfyl.ifas.ufl.edu/pinellas/florida-friendly-landscaping/>)



Some Florida Wildflowers

Left: Coreopsis (*Coreopsis spp.*) the Florida State Wildflower

Center: Blanket flower (*Gaillardia pulchella*)

Right: Purple coneflower (*Echinacea purpurea*)

Photo Credits: UF/IFAS

Rainwater Harvesting Tips

By Brian Niemann, UF/IFAS Extension Pinellas County,
Florida-Friendly Landscaping™ Agent

As we head into the fall dry season, you want to make sure your rainwater harvesting system is working as effectively as possible to capitalize on what rain we do receive. Now is a great time to review some rainwater harvesting tips to ensure that your rain barrels are as safe and effective as they can be.

1. **Create a stable platform:** A 55-gallon rain barrel weighs nearly 500 pounds when it is full of water, so placing it on a solid base is of vital importance. I prefer to use concrete masonry unit (CMU) blocks stacked two layers high to raise the barrel 16". CMU blocks are easily found at your favorite home improvement store for less than \$1.50 each. To create a solid base, purchase 8 blocks and arrange them in two layers to create a stable platform. Before laying out your blocks remove any vegetation and use a rake to level the area.
2. **Get water into the barrel:** Your method will vary depending on the presence of gutters and downspouts on your home.
 - a. If you don't have downspouts, you'll want to use a barrel with a large opening and place it in a location where a large amount of water flows off your roof. For extra safety, install a fence post in concrete behind your platform and strap the barrel to the post.
 - b. If you have downspouts, a barrel cut with an opening to fit your downspout is best. Use a flexible downspout extension and run the end into the barrel, which you'll seal around using silicone or caulk. An alternate method is to use a downspout diverter as shown in Image 1. The advantage to this method is that you don't need to install an overflow port.



Image 1

3. **Get overflow out:** 1" of rain on a 1,000 SF catchment area yields over 600 gallons of water. Chances are you won't be collecting water from an area that large on a single downspout, but you still need to prepare for overflow. A port should be installed near the top of the barrel with the water directed away from the house. An ideal solution is to route this water into a rain garden.
4. **Keep mosquitos out:** The best solution to control mosquitos is to exclude them from the barrel by using window screen over the top of the barrel secured in place with a bungee cord. If mosquitos do manage to get in, the best control is to use *Bacillus thuringiensis israelensis* (Bti) which is a highly targeted bacteria that kills mosquito larvae. You can purchase this bacteria under the trade name of "Mosquito Dunks" or "Mosquito Bits".
5. **Keep debris out:** If you have any tree cover over your roof, those leaves and sticks are going to end up in your barrel. Over time that debris can slow the flow of water through the spigot. If you're using window screen to exclude mosquitos, that's also serving double duty to keep debris out. Just make sure you don't let that debris build up on top of the screen for too long. If your downspout runs directly into a sealed barrel, you'll want to install a downspout screen, which can easily be found at a home improvement store in the gutter section.

For more information on rainwater harvesting and Florida-Friendly Landscaping™, you can email Brian at bniemann@pinellascounty.org or call him at 727-453-6524.



Rain gardens can be full of colorful plants that will add beauty to your yard. Photo Credit: Theresa Watkins, UF/IFAS

Flushable Wipes are Flushable, Right?

By Lara Milligan, UF/IFAS Extension Pinellas County, Natural Resources Agent

As consumers in the 21st century, many of us have become “label readers”. We read nutrition labels, personal care product labels, clothing labels, and so on. For those of us that do read labels, you might be disappointed to know that you can’t always trust the labels. I could write a whole series of articles about the different ways companies mislead consumers with some of their claims, but today I am going to focus on one word that we probably don’t often look for on labels and that is “flushable”.

If I told you that products that claim they are “flushable” aren’t really flushable, would you believe me? Probably not, but that is what I’m going to tell you, and I’ll explain what I mean. There are a handful of products out there that claim they are “flushable” and that’s because they can physically be flushed down a standard toilet. However, there’s more to the story. Let’s take personal wipes or baby wipes for example. We use them (just as we would toilet paper), we throw them in the toilet, and we flush them away. Great! It’s true! They are flushable! And it is great, unless your home plumbing has any limitations (i.e. root intrusion, grease, etc.) or you’re the wastewater system employee on the receiving end of those wipes.

In the wastewater world, products that are “flushable”, but do not break down like toilet paper are called “non-dispersibles” because they don’t disperse or dissolve quickly in water. The problem? Non-dispersibles can clog pipes and pumps. This can cause sewer overflows or equipment failure that can be quite costly to us as rate payers when utility employees have to spend a significant amount of time cleaning up sewer overflows, removing these items, and a significant amount of money to repair broken equipment that is not designed to handle these products. Remember, we collectively own the wastewater system and we all share the cost to maintain it, so we should all do our part to keep wastewater collection systems and treatment plants running as smoothly as possible. In addition, you can save yourself from plumbing costs because if clogs occur on your end of the pipe, you would have to hire and pay a plumber to correct the problem.



A Pinellas County Utility, 30-inch diameter sewer cleaning in January 2016. The material hanging on the Vacuum truck hose is an example of how “flushables” in the sewer system weave together to create real problems. This is not an extreme case—many blockages result in even larger rag balls that Utilities’ staff remove on a regular basis.
Photo Credit: Pinellas County Utilities Maintenance Division

One reason our role as label readers has become so challenging is because regulations behind certain labels are often lacking, leaving interpretation up to us and the companies producing the labels. Similarly, there is no federal definition of “flushable” or the testing process to determine if something is “flushable”. There is also no federal mandate to use a standard “Do Not Flush” logo for products likely to be flushed that will ultimately cause problems.

Below are some of the most commonly flushed products that are causing problems:

- **Personal “wet” wipes, baby wipes and paper towels**—some wipes might claim to be flushable, but they do not break down like typical toilet paper and can clog pipes and pumps that help to move our wastewater from our homes to the treatment plant. You probably already knew this about paper towels.
- **Dental floss**—dental floss is not biodegradable and because it is basically string, it can easily get caught on other objects (i.e. roots) in the pipeline and then serves as a platform for other items to get stuck on. This can quickly build up into a larger problem referred to as “ragging”. Think of monofilament (fishing line) in mangrove habitats.
- **Aquarium gravel or cat litter**—again, it might say “flushable” on the label, but gravel and litter should never be flushed down the toilet. They can cause unnecessary build-up in the pipes, reducing the amount of wastewater that can flow to the treatment plants. In addition, cat waste contains bacteria and it, like dog poop, should be disposed of in the garbage, not flushed down the toilet.
- **Grease or oil**—you have probably heard this before, but grease and oil are a “no, no” for going down the drain. It might seem as though it goes down with no problem when the grease or oil is fresh and hot, but once it gets down into the pipes underground, the contents cool off and slowly cause a buildup (like plaque in our arteries) inside the pipes as the grease or oil turns solid. Just like the cardiovascular surgeon, someone has to go in and clean out the buildup to help keep the pipes flowing.
- **Medications**—medicine flushed down the toilet can dissolve and flow into our local water bodies. Wastewater treatment plants are not designed to remove pharmaceuticals from the water and many pass through the system and can impact our local marine life and even our water supplies. Unwanted or unused medication should be disposed of properly. Pinellas County has regular “Operation Medicine Cabinet” events where residents can take unused or unwanted medicine to designated areas. Find out more at www.pinellasdrugabuse.com
- **Tampons and sanitary napkins**—ladies, when it’s that time of the month, we need to be sure to dispose of feminine hygiene products in the proper receptacles provided in most public restrooms. At home, you can simply wrap used products in toilet paper and place in the trash can.
- **Other “disposable” products**—disposable products are designed to be thrown away in the trash can, not flushed down the toilet. These products are convenient, but do not break down and can cause major clogging in pipe systems.

So what should you flush?

Just the “Three P’s”—pee, poop, and toilet paper. Some industries, such as those who produce personal wipes are working to improve their products and/or messaging to help consumers and wastewater treatment facilities. To protect our natural environment and save everyone the hassle, just remember the “Three P’s” next time you go to flush anything down the toilet.

If you want to see the wastewater treatment process for yourself, you can schedule a tour: South Cross Bayou Water Reclamation Facility in St. Petersburg (727-582-7000) or William E. Dunn Water Reclamation Facility in Palm Harbor (727-453-6744).

Facebook: Pinellas County Extension; Twitter: @Pinellas_Ext_NR; Instagram: uf_ifas_extension_pinellas
Email: lara317@ufl.edu; Feedback: <http://bit.ly/EverydayNature>; An Equal Opportunity Institution



Photo Credit: UF/IFAS.

A Crinum Lily Blooms

By Agnes Touris, Master Gardener

I took these pictures of my crinum lily in early September over a 24-hour period. They show it getting ready to bloom and after blooming.



Pictures from Chihuly Garden and Glass Exhibit

By Anita Lee, Master Gardener-in-training

My sister, Ivy Lee, took these pictures at Chihuly Garden and Glass, an exhibit at the Seattle Center in Washington.





Send your Articles and Photos

The next Issue of *The Dirt* is January 2019. The deadline for articles is December 31. Share your passion for gardening with your fellow Master Gardeners by writing an article for *The Dirt*. Include images where possible. However, if you include images they must fall under one of the following guidelines:

- your own
- UF/IFAS image
- open access image, as in wiki-commons, where all rights are open and the photographer is credited
- used with the express permission of the photographer

When you do send images, please do not embed them within the article. Include them separately. Please send all files as Word files. I cannot edit .pdf files.

Do you like to photograph plants or trees but don't like to write? Send me your photos with a description, even without an accompanying article, and I'll publish them with the description as well as a credit to you, the photographer.

Send your articles, images, and your photos to Dianne Fecteau at dianne@kendiacorp.com. My phone number is 727.366.1392.

All articles are subject to editing. In addition, Theresa Badurek, Urban Horticulture Extension Agent and Master Gardener Coordinator, reviews and approves all articles prior to publication.

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