

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

## Sometimes Spooky, Sometimes Not: Witches' Brooms in Your Garden

By Shannon Palmer, Master Gardener Trainee



Witches' brooms on Hackberry (*Celtis* sp.), caused by a mite and powdery mildew. Photo credit: Whitney Cranshaw, Colorado State University, Bugwood.org

Have you ever noticed a dense cluster of shortened stems on a woody shrub or tree that looked a bit out of place among the rest of its foliage? What you saw may have been an abnormal growth commonly called a witches' broom, so named because the bunch of spiky stems growing from a single point resembles an old fashioned wooden broom. Old superstitions were that witches, goblins, and elves used them to rest in the treetops during their nightly travels. Fun fact: the German word for them is *Hexenbesen*, which literally means "witches' broom" and where we get our English name. (Continue on next page)

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## Sometimes Spooky, Sometimes Not: Witches' Brooms in Your Garden Continued...

Gardeners have a couple good reasons to keep an eye out for these curious growths. The first is that they are often (but not always) a symptom of disease. The second is that some witches' brooms can be used to create economically important new ornamental cultivars of plants.

Witches' brooms occur in a wide range of plant species and have a variety of causes, including but not limited to: fungal and viral pathogens, mites and insects, nematodes, mistletoe, chemical or mechanical injury to growing plant tissue, nutrient deficiency, or naturally occurring genetic mutations in the plant. First, we'll look at two "spooky" cases of witches' broom that can cause problems, and then we'll look at an interesting non-spooky example that some people actually *want* in their gardens.

### 1. Witches' Broom Disease caused by the fungus *Sphaeropsis tumefaciens*

*Oleander bushes showing signs of S. tumefaciens infection caused by contaminated pruning shears. Left: early growth. Right: older growth. Photo credit: Dan Culbert, UF/IFAS*

This fungal pathogen can infect many different plant species in Florida. The most susceptible hosts are Oleander, Hollies (including our native Dahoon Holly), Bottlebrush, Citrus, and Southern Wax Myrtle. Crape Myrtle and Brazilian pepper can also be affected.

**Transmission:** Contaminated gardening tools as well as wind and rain. *(Continued on next page)*



*Witches' broom on holly infected by S. tumefaciens. Photo credit: Sydney Park Brown, UF/IFAS*

## Sometimes Spooky, Sometimes Not: Witches' Brooms in Your Garden Continued...

**Symptoms:** Stem galls form at site of pruning injury, usually followed by dense growth of shoots from the gall. Growth eventually weakens and dies, and the disease is often fatal.

**Treatment/Prevention:** Disinfect shears by dipping in 10% Clorox or rubbing alcohol for 30 seconds before and after use on each branch, and between uses on multiple plants. Prune plants during dry weather, ideally when there's at least 24 hours of no rain before and after pruning. No effective antifungal treatments exist for plants already infected. Branches showing abnormal growths should be pruned back at least 6 inches below the affected area when noticed. If the cut stems show discoloration from the fungal infection, cut them back further. Be sure to sanitize your shears while pruning back to prevent re-infection. Heavily infected plants may need to be removed entirely to reduce the spread of the disease.

### 2. Rose Rosette Disease (RRD) caused by *Emaraviru*

The Rose Rosette virus infects both wild and cultivated roses. Originally discovered in Canada in 1940, it has spread throughout the United States and was discovered for the first time in Florida in 2013.



*Witches' brooms on a rose plant infected with RRD. Photo credit: Binoy Babu*

## Sometimes Spooky, Sometimes Not: Witches' Brooms in Your Garden Continued...

**Transmission:** RDD is transmitted by a microscopic mite, *Phyllocoptes fructiphilus*, which feeds on rose plants. Mites can spread from plant to plant by wind and physical contact.

**Symptoms:** Development of witches' brooms, excessive thorns, unusual reddening of the leaves that does not disappear as the leaf matures, rapid elongation of new shoots, distorted leaf shapes and flower buds, abnormal flower color, leaf mosaic, uneven thickening of stem, distorted sprouting and dieback of shoots, unusual development of leaves within the flower, severe yellowing and stunting of plants. The disease is often fatal.

**Treatment/Prevention:** There are no treatments for the disease once plants are infected. Inspect new plants for signs of mites or RDD symptoms, quarantine new or suspicious looking plants and monitor their appearance before adding them to established beds. Affected plants should be removed and destroyed immediately (do not add to mulch or compost bin). Plant roses far enough apart so they're not in physical contact with each other and prune shoots showing signs of mite infestation. Miticide and insecticidal oils may also be used to control mites.

### 3. Witches' brooms caused by genetic mutation: a source of desirable new cultivars

Sometimes witches' brooms aren't caused by disease, but are instead products of natural genetic mutations in the growing bud tissue of plants. Cuttings from these "sports" can be propagated and retain their unique appearance, which has resulted in the development of several commercially successful dwarf cultivars of pine.

**More Witches' Broom Info On Next Page!**



Witch's broom at Henderson Beach State Park, in Destin, Florida.  
Photo credit: Rebekah D. Wallace, University of Georgia,  
[Bugwood.org](http://Bugwood.org)

**For more information about witches' brooms, refer to these publications.**

**General info on witches' brooms:**

<http://www.sfrc.ufl.edu/extension/4h/foresthealth/stress/witchsbroom.html>

***Sphaeropsis tumefaciens* info:**

<http://okeechobee.ifas.ufl.edu/News%20columns/witches.broom.htm>

<http://manatee.ifas.ufl.edu/comm-hort/plant-problems/oleander-witches-broom.shtml>

<http://orange.ifas.ufl.edu/cfnurseries/pdf/files/plantfacts/Oleander.pdf>

**Rose Rosette disease (RRD):**

<https://edis.ifas.ufl.edu/pp317>

<http://edis.ifas.ufl.edu/in999>

**Dwarf conifers from witches' brooms:**

<http://arnoldia.arboretum.harvard.edu/pdf/articles/1967-27--dwarf-conifers-from-witches-brooms.pdf>

**Registration:** <http://conference.ifas.ufl.edu/gardener/registration.html>

**Lodging:** <http://conference.ifas.ufl.edu/gardener/site.html>

**Speakers:** [http://conference.ifas.ufl.edu/gardener/general\\_descriptions.html](http://conference.ifas.ufl.edu/gardener/general_descriptions.html)



*Photo courtesy of Gardening Solutions, IFAS UFL*

## Fall Veggies are Cool!

*By Theresa Badurek, Urban Horticulture Extension Agent and Master Gardener Coordinator*

In our last issue we focused on preparing for a fall vegetable garden. Well, fall is here, are you ready? There is so much to plant October-December – hang on to your gloves. Now is the time to plant cool season crops- those that require cooler temperatures to thrive and produce. In this article we will address vegetables, herbs, and berries.

### Here are some popular plantings for the next few months:

#### October

Beets  
 Brussels sprouts  
 Carrots  
 Onions  
 Strawberries  
 Parsley  
 Cilantro  
 Chives  
 Garlic  
 Sage

#### November

Beets  
 Broccoli  
 Cabbage  
 Carrots  
 Kale  
 Lettuce  
 Cilantro  
 Parsley  
 Sage  
 Thyme

#### December

Celery  
 Cauliflower  
 Lettuce  
 Cabbage  
 Carrots  
 Parsley  
 Thyme  
 Sage  
 Dill  
 Fennel  
 Cilantro

## Fall Veggies are Cool! Continued...

### Wondering How to Decide Whether to Plant From Seeds or Starts?

Look at your calendar and check the days to harvest on any particular crop. Be sure you can plant, grow, and harvest your crop before the weather begins to get too warm again. Also, finding Florida tested varieties is often easier online or through seed catalogs as stores have limited options, many of which are not well suited to our climate.

*Bottom line: starting your own transplants from seed just gives you more options.*



Lettuce row – photo courtesy of Gardening Solutions, IFAS

### What about edible natives?

#### Leaves or Roots:

- ⌘ Florida betony, *Stachys floridana*
- ⌘ Spanish Needles, *Bidens alba*
- ⌘ Spiderwort, *Tradescantia ohiensis*

#### Teas:

- ⌘ Wild Pennyroyal, *Philoblephis rigida*
- ⌘ Yaupon holly, *Ilex vomitoria*

#### Berries:

- ⌘ Blackberries, *Rubus spp.*
- ⌘ Blueberries, *Vaccinium spp.*
- ⌘ Seagrapes, *Coccoloba uvifera*
- ⌘ Elderberries, *Sambucus nigra subspecies canadensis*
- ⌘ Grapes, *Vitis spp.*

### Prepare Your Soil

We have sandy soils throughout most of central Florida, so organic matter should be worked into your soil at least three weeks before planting. If you are using compost and mulches, be sure there are no large clumps of un-rotted material. These can harbor diseases as well as hinder seedling growth. When your conditions are right, these organic materials will be processed by microorganisms like fungi, algae, bacteria, molds, and earthworms. In doing this they make important nutrients available to plants.



Photo courtesy of Gardening Solutions, IFAS UFL

## Fall Veggies are Cool! Continued...

### Veggie Varieties

Proper crop selection and timing are critical. We are often tempted to plant crops or varieties that we know and love from somewhere else, but these are often not suited to our unique subtropical climate. Refer to the “Florida Vegetable Gardening Guide”:  
<http://edis.ifas.ufl.edu/pdf/VH/VH02100.pdf> to choose the best varieties. Use this to plan your garden layout and shop for seeds and plants. Pay special attention to Table 4, “Suggested Varieties for Florida Gardens” and Table 3 “Planting Guide for Florida Vegetables”. Pinellas County is considered Central Florida, but those of you in South County and along the beaches might lean towards South Florida recommendations.

### Pests and Diseases

So, how do you keep uninvited guests from eating your crops? Well, you must have a regular scouting routine for pests. Hopefully you selected resistant varieties from the “Florida Vegetable Gardening Guide” publication (see link below) and inspected your plants for pests and diseases before purchase and planting. Learn to recognize the beneficial insects that help control the “bad guys” that cause damage. Not using pesticides will help preserve the “army” of beneficial insects in your garden. A great guide to learn about beneficial insects is “Natural Enemies and Biological Control”:  
<http://edis.ifas.ufl.edu/pdf/IN/IN12000.pdf>.

#### More Info on Various Soil Amendments:

[http://gardeningsolutions.ifas.ufl.edu/giam/maintenance\\_and\\_care/soil\\_fertilizer\\_and\\_nutrients/soil\\_amendments.html](http://gardeningsolutions.ifas.ufl.edu/giam/maintenance_and_care/soil_fertilizer_and_nutrients/soil_amendments.html)

#### Other things you can do to help prevent and control pests and diseases:

- Use mulch; vegetables touching the soil may rot.
- Good garden mulch tends to reduce damage caused by nematodes.
- Keep out weeds, which harbor insects and diseases.
- Water in morning so plants are not wet at night.
- Dispose of severely diseased plants before they contaminate others.
- Handpick insects.
- Clean up crop refuse early.
- Rotate garden areas.



## Fall Veggies are Cool! Continued...

### Water Wisely

Be sure plants are getting enough **water**: avoid letting your garden wilt in the drier fall weather. Check the soil near the plant roots to make sure it's damp but not overly wet. Plants grown in containers will need more frequent watering to avoid wilting.

Once you get your fall vegetable garden planned you can look for recipes that will showcase the fruits and vegetables of your gardening efforts. Enjoy!

## Plant ID: Lance Leaf Coreopsis

*By Debi Ford*

**Botanical Name:** *Coreopsis lanceolata*

**Plant Size:** 18" to 36" tall

**Light:** Full Sun, Half Sun/Half Shade

**Bloom Time:** Summer to Fall

**Colors:** Yellow

**Zone:** 3-8

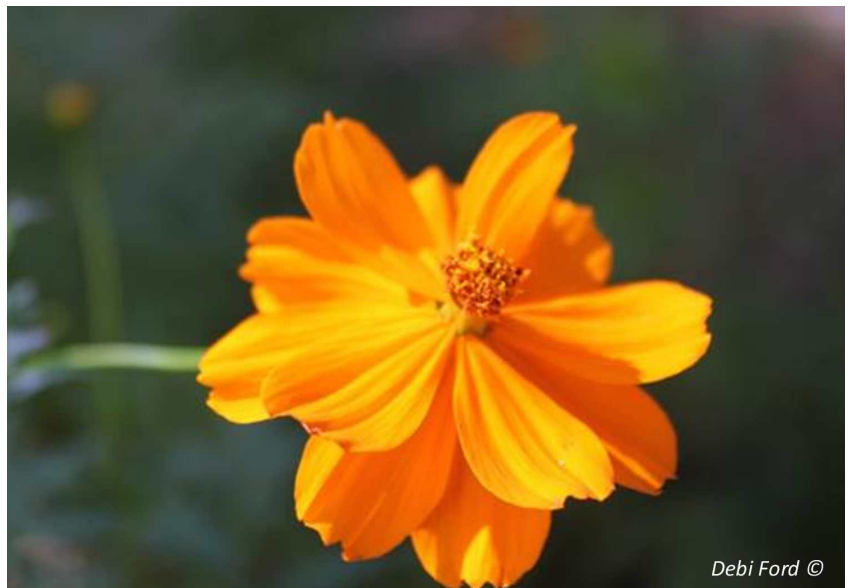
**Life Cycle:** Perennial

**Propagation:** By seed; once established, will self-seed from year to year

**Native:** Yes

**Invasive:** May self-seed every year

**Source:** IFAS



## Rain Gardens in Pinellas County

*By Linda Smock, Master Gardener Trainee*

The summer of 2015 will likely be remembered as the one when Pinellas County got a lot of rain! As a result of all the rain, most of us have identified the low places or swales in our yards that are likely to retain runoff water for about 24 hours. These depressions are often the ideal location for a rain or bog garden.

### What is a Rain Garden?

A rain garden is simply a shallow depression in the landscape that has been planted with deep-rooted plants and grasses. Usually, a rain garden is located to receive runoff from hard surfaces such as roofs, downspouts, sidewalks, driveways, and even streets. They slow down the rush of water from surfaces that are impervious, and are designed to hold the water for about 24 hours, and allow it to naturally percolate into the soil.

Rain gardens are basically swales, or shallow ditches, and are one of the least expensive and easiest ways to store water for a short time. Because they are designed to only hold water for about a day, they do not attractors of mosquitos. They are very effective ways of managing storm water runoff, and reduce the impact of pollutants as the water enters the storm runoff system.

Rain gardens mimic the natural absorption and filtering of a forest, swamp, or prairie. They can be as much as 40% more effective than lawns in this process, allowing the storm water runoff to absorb naturally into the environment.

A rain garden is NOT a water garden. Water gardens hold water purposefully, all the time. Rain gardens discourage water from staying on the surface for more than 24 hours.

### Designing Your Rain Garden

**STEP ONE:** Selecting your location – make sure it is positioned where the water runs off naturally, no matter what the source including roof, sidewalks, etc. If a gully is forming, then it is the ideal location. You may need to create small berms to direct the water to the rain garden. *(Continued on next page)*



*A Rain garden allows runoff to re-enter the soil, and is a place where water-tolerant plants are used to provide a pretty place.*

*Graphic courtesy City of Lake Worth, FL*



*Image by Stuart Miles, FreeDigitalPhotos.net*

## Rain Gardens in Pinellas County continued...

**STEP TWO:** Next you need to think about the kinds of plants you want, and plan any hardscape such as rocks, that you may want. Plants are traditionally native Florida plants that grow well in meadows where water naturally collects in low areas, then drains within a day.

**Suggestions of flowering plants include, but are not limited to:**

- African iris (*Dietes iridioides*)
- Blue flag iris (*Iris virginica*)
- Canna lily (*Canna* spp.),
- Milkweed (*Asclepias* spp.)
- Goldenrod (*Solidago* spp.)
- Shrimp plant (*Justicia brandegeana*)

**Grasses and shrubs for Pinellas County include:**

- Florida Gamma grass (*Tripsacum floridanum*)
- Muhly grass (*Muhlenbergia capillaris*)
- Wiregrass (*Aristida stricta* var. *beyrichiana*)
- Virginia willow (*Itea virginica*)

**Ground covers add a needed element such as:**

- Holly fern (*Cyrtomium falcatum*),
- Periwinkle (*Vinca major*)
- St. Bernard's Lily (*Anthericum sanderii*)

**For spaces that allow for it, trees are idea, exceedingly cost effective, as they can each reduce storm water runoff by 4,000 gallons per year. Appropriate trees include:**

- Loblolly Bay (*Gordonia lasianthus*)
- Sweetbay Magnolia (*Magnolia virginiana*)
- Dahoon holly (*Ilex cassine*).

**STEP THREE:** You will also want to consider whether you want a border. Rocks work well, as they are heavy and hold the soil in place. Varying sizes can be used for visual appeal, especially when placed both around and throughout the garden.

## Get Specialized Advice From Local Native Wildflower Experts

By Tina Love, Master Gardener 2015

Hawthorn Hill Native Wildflower and Plant Nursery in Largo is a licensed nursery devoted to the propagation of Florida native wildflowers that are rarely available to homeowners (like the Pink Feay's Prairie Clover – *Dalea feayi*, shown here). Over the past 20+ years, they have collected seeds or traded plants with other enthusiasts from all parts of Florida and have successfully grown hundreds of these species in Pinellas County.

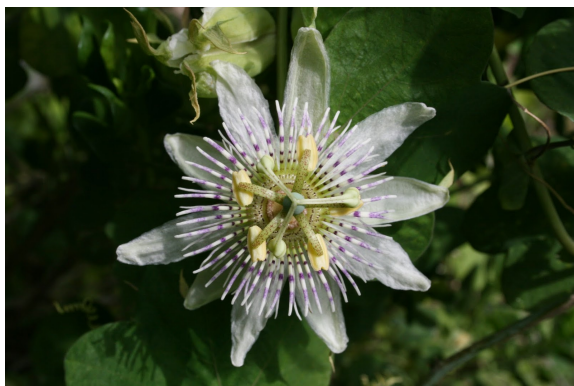


Image courtesy of Hawthorn Hill Nursery: Feay's Prairie Clover: *Dalea feayi*

Hawthorn Hill is the brainchild of Craig and Alexa Huegel. Craig is an environmental consultant and educator who loves plants. He currently teaches Plant Biology, Field Botany and Conservation Biology at St. Pete College.

Although not a retail plant nursery, they open their property to public tours twice a year, and sell their extra plants. Their website [hawthornhillwildflowers.blogspot.com](http://hawthornhillwildflowers.blogspot.com) offers a very informative reference covering a wide variety of native plants.

I attended their open house/plant sale in early August. I drove up to their house to find several table laden with young plants. Craig and Alexa were very happy to answer my questions, helping me to decide which plants would be best for my landscape. After a tour of their nursery area, I came away with 5 wildflowers (@\$4), which happily reside in my garden now. For further information, email [huegelc55@aol.com](mailto:huegelc55@aol.com) or call (727) 422-6583. Some of the amazing diverse plants propagated at Hawthorn Hill Native Wildflower and Plant Nursery include:



Pale Passionvine: *Passiflora incarnate*. Image courtesy of Hawthorn Hill Nursery.



Small Woodland Sunflower: *Helianthus microcephalus*. Image courtesy of Hawthorn Hill Nursery.

## Book Review

### ***A Book About the Influence of American Gardeners Overseas***

*Book Reviewed by Lainy McPhee*

As a gardener who also loves history, I have found *On Foreign Soil: American Gardeners Abroad* by Mary Brawley Hill an enchanting read. This book covers gardens created by Thomas Jefferson, Edith Wharton and Gore Vidal, with many other expatriates in between. It requires a unique personality to be able to cultivate a "homelike" garden in a foreign country, especially where the climate, soil and plants may be so different from the familiar ones found at home in America. Add to that mix the possible cultural and language challenges that may be encountered. This book delves into the lives of those Americans in England, France and Italy who created gardens that reveal their personalities and values, as well as uniquely American traits that set these gardens apart from others in the adopted countries of these various expats. We have always seen the influence of European gardens on America – this book presents the influence of American gardens cultivated abroad.



Mary Brawley Hill is the author of several books on American gardens, including *Grandmother's Garden: The Old-Fashioned American Garden* and *Furnishing the Old-Fashioned Garden: Three Centuries of American Summerhouse, Dovecotes, Pergolas, Privies, Fences & Birdhouses*.

This is a must-have book for any gardener available at Barnes & Noble, Borders, Indiebound.com or Amazon.com.

## The Passing of a Fellow Master Gardener

*By Lisa Boing, Master Gardener*

She told me in mid-June she was having health issues and would be taking a month off from her volunteer responsibilities at the Extension Vegetable Demonstration Garden. A month turned into two. When I returned from vacation and called to check on her health again, Joe, her companion of over 30 years, answered her cell phone to tell me my friend Dorothy “Dottie” Hall had passed away on August 13, 2015.

Dorothy and I met in the October 2012 Master Gardening class. I loved to bake a little something for my classmates, but I quickly learned Dorothy ate a gluten-free diet. WHAT! No bake goods? Well Dorothy, always the teacher had me whipping up different rice flour cookies and trying new ways to bake and eat!

She was always a health-conscious eater and had a vast knowledge of organic foods and gardening. One day while we were testing the pH of the water in the garden, she had me test MY pH as well...who knew? I bought her juicer as she had found a better one, and she shared her kale chip recipe. Smoothies? I now make them with greens instead of only fruit. Needless to say, she has added to my healthy lifestyle. Thank you Dorothy!

I feel her absence every day, especially as we enter the vegetable-planting season. At 71, Dorothy couldn't do much heavy lifting, but she certainly did her share of weeding, planning for seasonal crop rotation, planting seeds, strategizing companion planting, and being there for soil amendments. What a trooper!



In loving memory of Dorothy “Dottie” Hall – 2015

## The Passing of a Fellow Master Gardener continued...

Some of my favorite memories were when she would share “how her father did it” like trenching the sweet potatoes or tying up the tomatoes. She could be opinionated about “her way”, but can’t we all? Then there was the planting of sunflower seeds. I took this picture trying to capture or identify the bug on the sunflower, but Dorothy’s spirit prevailed. We will plant more in your honor Ms. Sunshine.

Her sense of humor and sweet nature kept me motivated on those dreadful hot days or even when we did not have a clue about a particular Florida insect or disease. When I picked up horse manure for the compost bins, Dorothy (with a grin on her face) would thank me for picking up the horse SH\_#\*@!\_\_. ☺

Why do I have red wiggler worms reproducing in my living room? Dorothy of course. I did not have a lanai and could be forgetful, so I kept them inside so they would be fed. My husband rolls his eyes as I give the worms our coffee grounds, eggshells and grated carrots. “Why, he asks?” DOROTHY!! She had found a class at the Manatee Extension to add to our knowledge of all things “Organic gardening”... and off we went! Making compost tea this winter will flood my memories of you, Dorothy, and I will think of your passion for the vegetable garden.



Dorothy's sweet potato bounty.

Besides volunteering at the Florida Botanical Holiday Lights, Dorothy served on the Board of the Florida Herb Society and was a speaker for them. By publication time of this article in *The Dirt*, we will have been at their (third Tuesdays of the month) September 15<sup>th</sup> meeting at Moccasin Lake Nature Park for a Celebration of her Life to honor the many fond memories of Dorothy.

The last week of August, new Master Gardener Melinda Moreschi and I dug up Dorothy’s last crop she planted at the Extension Vegetable Demonstration Garden and what a bounty of sweet potatoes! A Sweet Dorothy Bounty. I will miss you my friend. RIP

## The Garden Connection

### Regular Meetings

#### American Hibiscus Society

Location: Pinellas Park Public Library, Corner of 78<sup>th</sup> Ave and 52<sup>nd</sup> St, Pinellas, Park, FL

Saturday, Oct 24, 10:00AM "Winterizing Your Plants"

November 13 – 15 AHS Fall Meeting ~ members only

#### Belleair Garden Club

Location: Belleair Garden Club, 903 Ponce de Leon Blvd., Belleair, FL

Wednesday, Nov 4 1:00PM "Camellias" ~ Speaker: Eileen Hart

Thursday, Nov 19 6:30PM "Holiday Floral Arrangement" ~ Cost \$35

Reservations Required by Nov 12. Contact Kathe Hardwick at [Kathleen\\_Hardwick@msn.com](mailto:Kathleen_Hardwick@msn.com)

Wednesday, Dec 9, 11:30AM "Holiday Party" ~ Guests welcome ~ Bring a dish to share

Contact Kathe Hardwick to RSVP and get directions to event.

#### Clearwater Garden Club

Location: 405 Seminole Street, Clearwater, FL

Saturday, Nov 13, 10:00AM "Holiday Wreath Workshop" ~ Speaker ~ Marcia Clark

#### Davis Islands Garden Club

Location: 81 Columbia Drive, Tampa, FL

Wednesday, Nov 4, 10:00AM "Custom Arrangement of Succulent Plants"

Speaker: O'Berry's Succulents

#### Dunedin Garden Club

Location: Dunedin Public Library, 223 Douglas Ave, Dunedin, FL

Saturday, Nov 7, 1:00PM "Thanksgiving Centerpiece" ~ Speaker: Vera from Oldsmar Florist

Saturday, Dec 5, 1:00PM Annual Holiday Party ~ Pot Luck – Guests welcome.

#### Safety Harbor Garden Club

Location: Safety Harbor Museum and Cultural Center at 329 Bayshore Boulevard S, Safety Harbor

Wednesday, Oct 21, 9:30AM "Gardening for Florida's Butterflies" ~ Speaker: Pam Traas

Wednesday, Nov 18, 9:30AM "Dedication of the plaque for the Baranoff Oak Tree"



## The Garden Connection

### Regular Meetings

#### Garden Club of St. Petersburg

Location: 500 Sunset Drive, St. Petersburg (in Coconut Park). Parking at Park Street and 5<sup>th</sup> Avenue S

Tuesday, Nov 10, 1:00PM

“Bromeliads, Not Just for the Landscape”

Speaker: Marty Baxley from Jungle Gems

Tuesday, Nov. 10, 6:30PM

“Fun With Flowers”—A Make & Take Thanksgiving Arrangement”

Speaker: Sharen of Sharen’s Flowers, \$10 /members, \$15/guests

Reservations required— Phyl Lawson – 727-515-6575

Thursday, Nov 12, 2:00PM

“Caring for Your Orchids” ~ Speaker: Michael Polen of Art Stone

Thursday, Nov 19, 10:00AM

“Make and Take”, a Thanksgiving arrangement ~ Cassie Osterloth

from Wonderful Floral Art and Gift Loft. \$10/members – \$20/guests

Reservations required by Nov. 5<sup>th</sup> to Mary Crowe-727-397-6871

Monday, Dec 7, 10:00AM

“Christmas Shells & Decorations” ~ Cost: \$3.50/members,

\$4.50/guests

Thursday Dec 10, 2:00PM

“Propagations, GMO and Grow Buckets”

Speaker: Elsa Soto, University of Florida Master Gardener

## **The Garden Connection Special Events**

### **Garden Club of St. Petersburg**

#### **Holiday Luncheon**

**December 4, 11:00AM**

500 Sunset Drive, St. Petersburg (in Coconut Park) - Parking at Park Street and 5<sup>th</sup> Avenue S "Holiday Traditions Around the World" ~ This special annual event features a delicious lunch as well as a presentation about the fascinating ways that holiday traditions are observed around the world.

Cost \$30 - includes luncheon and presentation. Reservations required - Liz Coerver - 727-865-0341

**Next Issue of *The Dirt* is January 2016  
Deadline for Articles is December 10**

Share your passion for gardening with fellow Master Gardeners by writing an article for *The Dirt*. It's super easy and you'll find we're really friendly.

Send your articles with images to: Mary Laurinaitis at: [mlaurinaitis@verizon.net](mailto:mlaurinaitis@verizon.net)

All articles are reviewed and approved before published by Theresa Badurek, Urban Horticulture Extension Agent and Master Gardener Coordinator.



Image courtesy of amenic181 at FreeDigitalPhotos.net

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***The Dirt***

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