

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

Wildflower Gardens for Pollinators

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

Did you know that in North America 40% of our insect pollinator species, especially bees and butterflies, are facing extinction? This is an alarming trend, something we all need to address.

We can help pollinators by planting native wildflower meadows or gardens. Besides providing habitat for pollinators, these gardens support other wildlife, improve water infiltration, reduce water use, filter runoff, and store carbon.

Begin by determining which wildflower species you should plant for your site conditions. Some sites are dry and well drained; other sites are moist to wet. Select a variety of plants with different flower sizes, shapes, colors and heights, as well as different blooming times. Include at least one native bunch grass or sedge in your mix. Short, clump-forming grasses are best.

Examples for dry sites include blanketflower, golden tickseed, black-eyed Susan, dotted horsemint, lanceleaf tickseed, partridge pea, narrowleaf sunflower, little bluestem grass, and purple lovegrass. Examples for a moist to wet site include leavenworth's coreopsis, white wild indigo, dotted horsemint, giant ironweed, golden tickseed, wand goldenrod, blue mistflower, narrowleaf sunflower, partridge pea, beaked panicgrass, and redtop panicgrass. To purchase Florida native wildflower seeds see (<http://floridawildflowers.com>) or (www.flawildflowers.org/shop.php).

January 2017 Issue 8

Wildflower Gardens for Pollinators

Ornamental Grasses—Wow Factors for your Landscape

What's With All the Acorns?

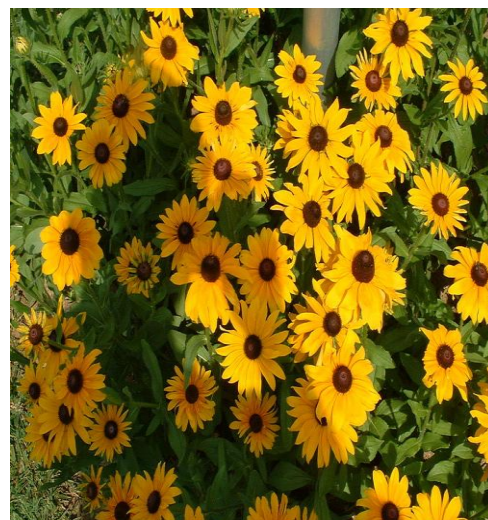
The Notebook—an Inspiration

On the Shelf

Proper Pruning

Pictures from the Galapagos Islands

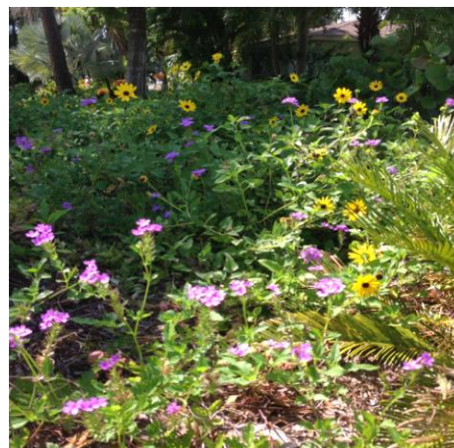
Send in your articles and photos



Black-eyed Susan. Photo Credit: UF/IFAS



Left: Blue Mistflower.
Photo Credit: Mary
Derrick, UF/IFAS.



Right: Wildflower garden.
Photo credit: Dianne L.
Fecteau

Because wildflower meadows need lots of sun, pick a spot that will get full sun most of the day. Before planting, remove all plant material and create a smooth surface for your seeds. Grass removal is easy. You can rent walk-behind sod cutters or spray with an herbicide that kills grass. Another option is to solarize the soil. After removing vegetation, water the soil and then place clear UV stabilized 3-6 mil plastic over the cleared soil and bury the edges to prevent airflow. Solarize only during the hot summer months for six to eight weeks. This kills weed seeds and disease organisms. Leave the plastic in place until the seed is sown.

If you live in the northern half of Pinellas County, the best time to sow seeds is mid-October to the end of December. If you live in the southern half of the county, sow the seeds November through January. To distribute seeds evenly over the planting space, fill a large bucket about halfway with sand or vermiculite. Slightly moisten and then add $\frac{1}{2}$ of the seeds. Mix thoroughly. Start at one end of the garden and spread the mixture evenly over the site from east to west. Repeat the procedures, starting at the other end and going from North to South. If erosion is a concern, apply a thin layer of weed-free straw.

Make sure there is good soil to seed contact. Use a sod roller for large areas or walk over a small site. Because seeds need light to germinate, they should remain on top of the soil or be barely covered. Water seeds gently after planting to help settle them in the soil. After germination, it is only necessary to water if there are drought conditions.

There are two methods of weed control, depending on whether you are planting annual or perennial wildflowers. To help you identify young wildflowers see (<http://goo.gl/IXEXYX>). For annual wildflower mixtures, it is important to remove weeds before planting. Spot treat or clip weeds as necessary during

the growing season. Late in the season, after the wildflowers complete blooming, you can mow the area to reduce woody plants and help scatter the dry wildflower seed heads.

If your seed mix contains mostly perennial wildflowers, the best way to control annual weeds the first year is by regular mowing or string trimming. Mow when plants reach 12 inches, or when a large number of weeds begin to flower. Trim to boot height or about 6 to 8 inches. Don't pull weeds the first year because it could damage the surrounding wildflower's root systems. Clip or spot spray the weeds in smaller areas. During the second year, wait until most of the weeds are about to flower and then mow only as necessary. Mow the weeds before they have a chance to produce seeds.

Under normal conditions, native plants don't require any fertilizer. Fertilizers tend to promote weeds and water pollution, so don't fertilize.

Put up a sign to let people know that you have planted a pollinator garden. To learn more visit (<http://www.xerces.org/bringbackthepollinators/>). Once your pollinator meadow is established, consider adding it to the Bring Back the Pollinators Pledge map or submit your bumble bee observations to the Bumble Bee Watch website (www.bumblebeewatch.org).

Other things you can do to help pollinators include landscaping with Florida native plants, avoiding the use of pesticides which harm bees and other beneficial insects, avoiding fertilizers which harm waterbodies, and asking your county to plant and preserve roadside wildflowers. In addition, work with lawmakers to preserve and conserve natural resources and lands, including removing codes that prevent wildflower meadows.

Remember, it is up to us to protect, enhance and preserve our environment for future generations.



European Honey Bee. Photo Credit: UF/IFAS.

Ornamental Grasses—Wow Factor for your Landscape!

By Debi Ford, Master Gardener

Ornamental grasses can bring new life to your landscape. The great news is that many varieties are native. These natives are drought-tolerant, very important when gardening in our area. Ornamental grasses are dynamic. The size, shape, texture, and color of grass can change with every season. They provide color, texture, and movement in a garden—in short, a delight for any landscape.

The term "ornamental grass" refers to true grasses, as well as other plants that have a grass-like appearance. They can be native or non-native, evergreen or deciduous, clump-forming or creeping. Varieties vary in mature shape and height as well as in their flowering time. Many have interesting winter characteristics.

Plantings can be one plant as a focal point, multiples of the same plant for a dramatic effect, or a mixture of varieties for a natural look. You can plant ornamental grasses in containers, too, but make sure to check their water needs—container-grown plants tend to dry out faster than in-ground plants.



Left: Single variety as a focal plant. Center: Massed planting for dramatic effect. Right: Mixed varieties for a natural look. Photo Credits: Debi Ford.

Native varieties include Mountain Oats (*Chasmanthium latifolium* sometimes called 'River Oats' or 'Northern Sea Oats'), Purple Muhly Grass (*Muhlenbergia capillaris*), Purple Muhly and Fakahatchee Grass (*Tripsacum dactyloides*), to name just a few. Mountain Oats and Fakahatchee Grass are also attractive to butterflies.

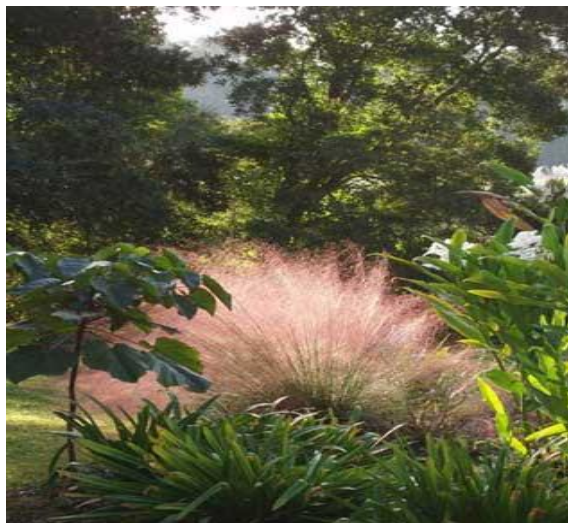
Considerations When Planting

- Make sure it's the right plant in the right place.
- Determine the pH of your soil with a soil test available through the University of Florida http://solutionsforyourlife.ufl.edu/hot_topics/agriculture/soil_testing.shtml.

- Amend soil with organic matter.
- Remember to consider the mature height and spread of the plants you choose.
- If you're using a variety of types and sizes, it might be helpful to plan your garden on graph paper to determine the placement of each plant before you start to dig.
- Once your site is prepared, place the potted plants according to your design plan to check your placement.
- Dig your holes, making sure to keep the plant slightly higher than ground level, and water well.
- Maintain your grasses by cutting them back in late winter. Refer to the specifics for each variety. Cutting back from time to time helps to remove dead material and stimulate new growth. You can also "comb" the plants to remove any dead material from the plant after you've cut it back.
- Grasses may be lifted and divided, but make sure to check the specifics for each variety.

Garden centers offer many options for incorporating ornamental grasses in your landscape. Try one or many, the choice is yours.

Compiled from *Considerations for Selection and Use of Ornamental Grasses* by Mack Thetford
UF/EDIS <http://edis.ifas.ufl.edu/ep233>



Muhly grass provides a splash of garden color. Photo credit: IFAS

What's With All the Acorns?

By Barb Strickland, Master Gardener.

Have you noticed the crunch as you walk across a parking lot or seen the sidewalk littered with acorns? You might be wondering why there seems to be so many more acorns this year. The reason is that it's a mast year. Mast is the botanical name for nuts, seeds, buds, fruits, or any part of a tree that is foraged for edible food by wildlife.



Photo credit: UF/IFAS

There are both hard (acorns, hickory, and walnut) and soft (crabapple and blueberry) masts. Hard masts contain a higher energy content making them a good winter food source for wildlife.

Acorns are the seeds from oak trees. Red oaks produce seeds every two years; white oaks produce seeds each year. When both red and white oaks produce acorns at the same time, along with all the other trees in a region, it's a bumper crop known as a mast year.

Normally, oak trees reproduce slowly. This is because their acorns are easy prey for wild animals. Rodents, raccoons, white deer, black bear, and various birds are just a sampling of animals that rely on the acorn for survival.

There is no definitive answer as to why mast years occur. One scientific theory is that mast years assure there will be leftover acorns to take root so oak trees can propagate. Another theory is that the trees are trying to maximize pollination efficiency by releasing flowers and pollen simultaneously with a larger germination and increased acorns. At one point, the Farmer's Almanac believed that mast years forecast a long winter but scientific evidence does not support this.

According to Dr. Marc Abrams, a professor of forestry at Penn State, mast years are unpredictable. They can occur twice in a row and produce ten times the usual number of acorns. There may be a weather connection, possibly an intense rainfall in a prior year. Another theory is that the trees are emitting a chemical cue or signal that results in greater acorn production. Whatever the reasons, a mast year works to renew the woods. If oaks produced the same quantity of acorns each year, the animals would reproduce enough to eat that quantity and there would be no new oaks. In a mast year, the abundance of acorns results in sufficient quantity for germination. The trees may be monitoring and assuring their own survival.

Oak trees are important in modern forestry. An article in Mother Earth News described the many uses of oak in furniture, tile, fences and house framing. In addition, oak is a clean renewable energy and heat source. Mast years assure the reproduction of this important resource.

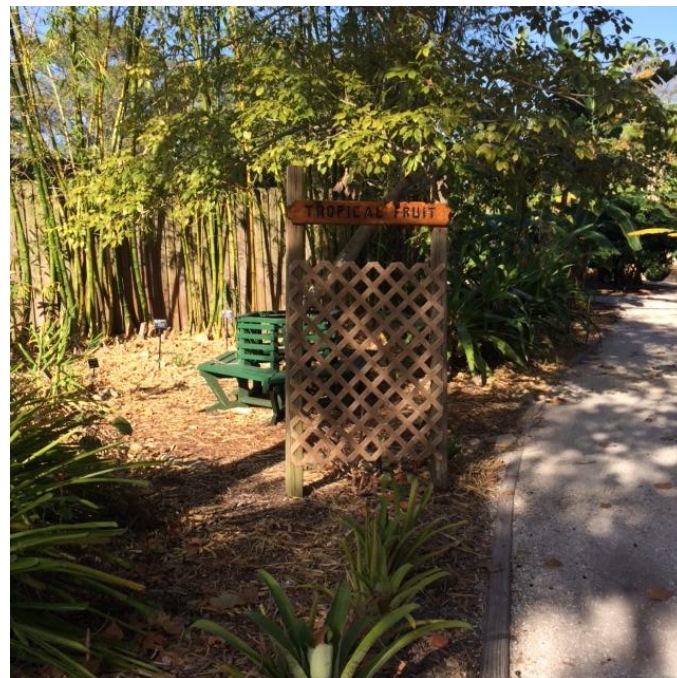
The Notebook—an Inspiration

By Barb Stauffer, Master Gardener.

Standing among the towering, majestic banana trees in the tropical fruit area of the Pinellas County Extension is like visiting a tropical paradise!

Fortunately, two of the Master Gardeners responsible for this project—Charlie Kohnken and Wayne Huneke, known as the “Banana Boys”—kept a notebook. This notebook is in the Extension Archives. Browsing their meticulous notes, scientific charts, and extensive printed resources, I was awed and inspired by their thorough observations, dedication, and effort.

They began by planting banana trees. Beginning with a small variety of cultivars, they added additional fruit specimens. The notebook listed the varieties along with a layout grid and a matching key. Also included were many references of handouts, from both UF-IFAS and other universities, including one referencing the folklore of the banana. Kohnken and Huneke were meticulous in their documentation of resources among both Extension staff and the UF Plant Disease Clinic at Gainesville.



Left: Charlie Kohnken & Wayne Huneke (picture shared by Ray Marshall). Right: Tropical Gardens. Photo credit: Barb Stauffer.

In 1999, Kohnken, Huneke, Carol Killen, and Tom Ballinger began collecting data over a three-year period from banana plants grown in the tropical fruit gardens. They tagged plants with the date when a bud appeared. When the fruit was ready for harvest, they recorded the date. In addition, they recorded the bud out date, picking date, number of days from “bud out to harvest”, and the season, including weather. After entering this data into a database, they could analyze the many factors affecting growth. Collection of the data was an ongoing process, continually evaluated and refined. They eventually suggested a logbook that could accumulate more in-depth data on each plant such as temperature and moisture.

Collecting data from close and systematic observations is both educational and helpful to gardeners. This notebook and article have prompted me to begin my own gardening journal, becoming a more disciplined and discerning observer. In addition, I take more notes and photographs in my own backyard! What a wealth of information I will have at the end of the year, both for my future gardening and for sharing with Master Gardeners. The notebook also reminded me of the wealth of current information we have through UF as Master Gardeners.

As gardeners, the beginning of a new year is the perfect time to plan and contemplate our next plantings and gardening endeavors. Whether 2017 finds us planning a window box, a new garden or a Master Gardener project, may we be inspired by this notebook and these dedicated Master Gardeners!

References:

Banana Growing in the Florida Home Landscape¹ by Jonathan H. Crane and Carlos F. Balerdi
<http://edis.ifas.ufl.edu/mg040>

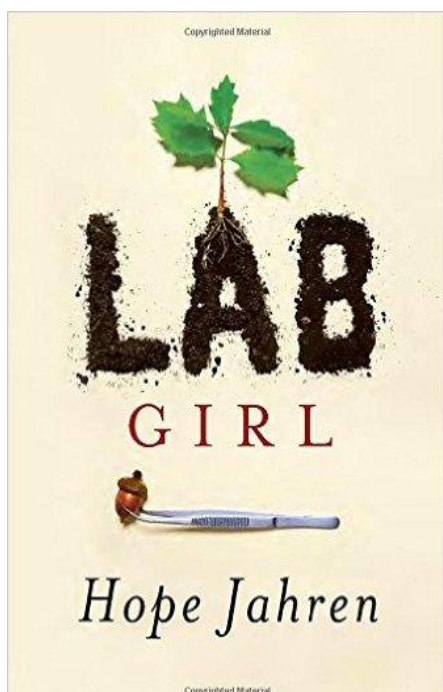
Banana Market¹ by Edward Evans and Fredy Ballen
<http://edis.ifas.ufl.edu/fe901>

On the Shelf By Debra Kramer, Master Gardener

One of the basic tenets of the master gardener educational program is that we only provide research-based information to the public. We know that research is being conducted somewhere, but we have little contact with the person in the lab getting dirt on her hands. What is it like to be a botanical scientist?

Hope Jahren answers this question in her new memoir, *Lab Girl*. It is an account of her lifelong pursuit of studying the complex world of plants. She is a research scientist whose work becomes the basis for the information that we learn and then disseminate to the public.

The author not only enlightens us about the process of becoming a research scientist, she also broadens



our understanding of the subject she studies. The chapters alternate between those devoted to her personal and professional growth and those devoted to explaining trees and plants. In the former, she presents a linear story of her struggles, both personal and professional, to become a research scientist. She describes her challenges to achieve this goal, at a time when females were rarely part of the research world, with insight, humor, and candor. Her descriptions of her experiments that flop, reminds us of the importance of failure in science. She conveys the excitement of the occasional breakthrough that ultimately leads to more questions to study.

The second set of chapters describes trees and plants. Each chapter focuses on a specific characteristic. I was enthralled by her descriptions and explanations. Her simple, clear and almost poetic language beautifully captures her love of the botanical world. As the chapters alternate, you soon realize that the topics she covers in these

in these chapters reflect and parallel her personal story.

As we stand on the sidelines cheering on the research scientists who are confronting critically important questions about our plants and environment, the book *Lab Girl* focuses the spotlight on one scientist. Through her story, you develop a greater appreciation of the importance of this group of people on our work and lives.

Note: The Pinellas County library system has 18 copies of this book available throughout the various library branches.

Proper Pruning

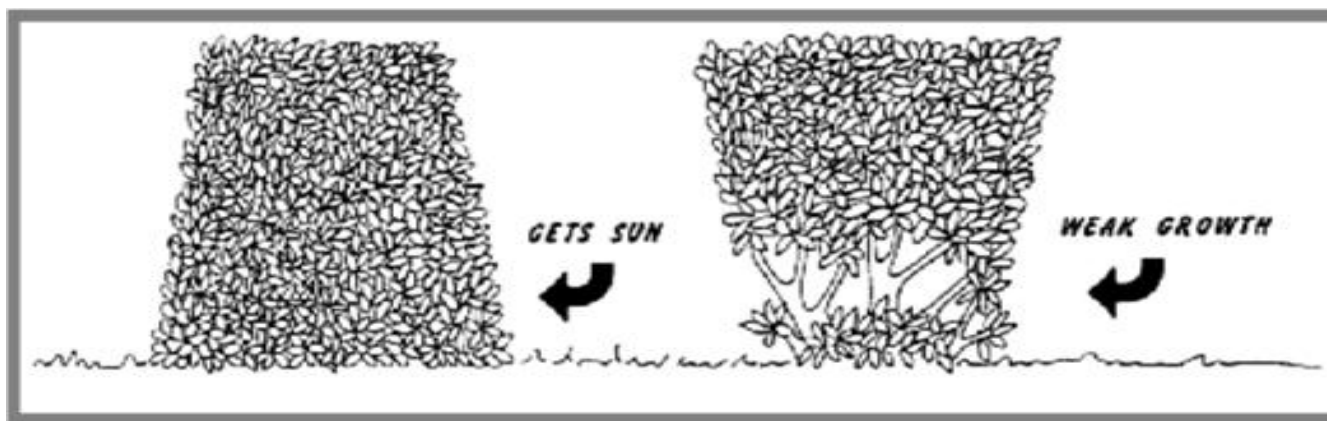
By Jane Morse, UF/IFAS Extension Agent, Pinellas County

Here are some things you can do to prune like a professional.

First, it's about timing. Plants that produce flowers on this year's growth (new wood) are usually pruned while still dormant (January/February) or just before the spring growth flush. To encourage the most plant growth, prune just prior to the first spring growth flush. To slow growth and keep plants smaller, prune just after each growth flush. Prune most evergreens, such as podocarpus, holly, ligustrum, juniper and wax myrtle, any time.

Plants that produce their flowers on last year's growth (old wood) require pruning after they bloom. Pruning must stop three to four months after bloom when the new buds start to form. If you prune after this, you won't get any flowers the coming year.

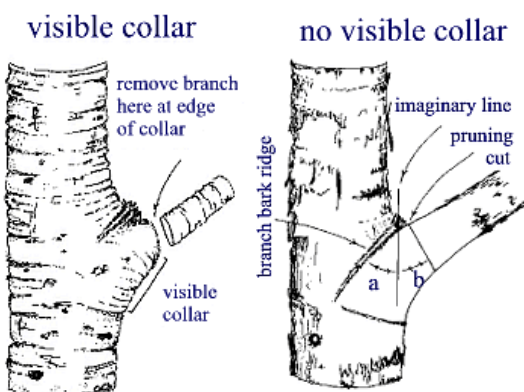
Pruning in the late fall or early winter causes tender new growth that is susceptible to damage from cold weather or even a light frost.



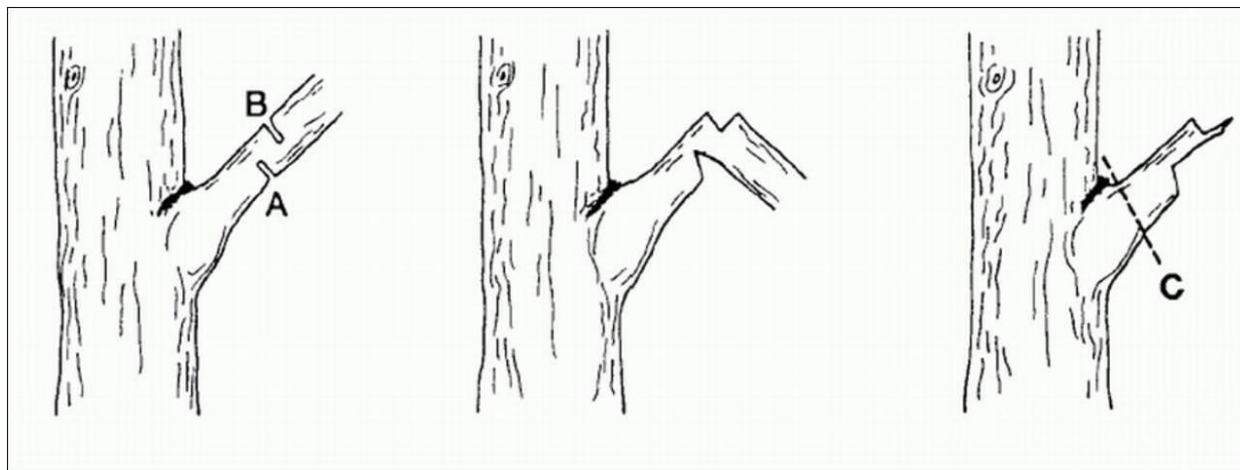
Second, it's about shape. You should prune shrubs so that the base is slightly wider than the top. This allows sunlight to reach all the leaves, resulting in a plant that has leaves from top to bottom, rather than the shabby looking shrub that has no leaves at its base.

Prune trees so there is only one major trunk with evenly spaced side branches. Removing all the interior branches of trees, called lion-tailing, is a harmful practice. Avoid doing this. Thinning should take place from the outside in, not the inside out. Another good rule to follow is to remove no more than 1/3 of a plant's entire mass when pruning (and less on older trees).

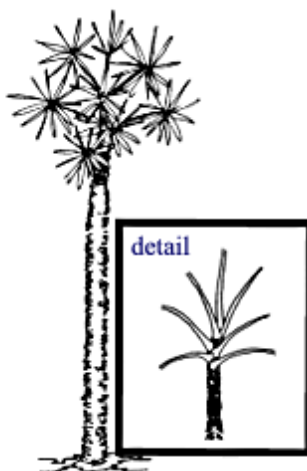
Third, it's about the cut. There are only two proper cuts. One is called a reduction cut and it removes a larger branch back to a smaller side branch.



The second type, called a removal cut, removes a side branch from a larger branch. Cuts should be outside the collar. Never make them flush against the trunk. Flush cuts are harmful and improper.



When removing branches that are 1 ½ inch diameter or larger, use the 3-cut method. This keeps the branch from ripping down the side of the trunk. This method starts with a cut (A) on the underside of the branch about 15 inches from the trunk. The 2nd cut (B) is made downward from the top of the branch a few inches out from, or directly over the first cut. The 3rd cut (C) is the final removal cut of the stub that is left.



Palms that have any kind of nutrient deficiency (very common) should have only completely brown, dead fronds removed. Those with proper nutrition (very rare) should never have petioles (branches) removed from the trunk that are straight out and parallel to the ground (see detail above) or above those that are parallel to the ground. Those petioles below those parallel to the ground are acceptable to remove. Leaving all fronds on palms is ideal, though, as they often serve as wildlife habitat for creatures such as bats.

Fatal plant diseases can spread through infected pruning tools. Be sure to disinfect your tools before pruning the next plant. When pruning to remove disease on one plant you will need to disinfect your pruning tools between each pruning cut.

- For free help with your lawn and garden questions, the UF/IFAS Extension Pinellas County is just a phone call or visit away. We are located at 12520 Ulmerton Road, Largo next to the Florida Botanical Gardens and open from 8 a.m. to 5 p.m. Monday through Friday. To speak with a horticulturist call 727-582-2110 Monday, Tuesday or Thursday from 9 a.m. to noon and 1 to 4 p.m. You can also visit our website at www.pinellascountyextension.org

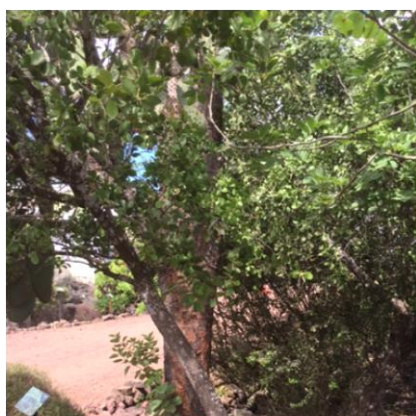
A Few Pictures from the Galapagos Islands, November 2016

By Dianne L. Fecteau

Over Thanksgiving, I visited the Galapagos Islands. Both the wildlife and plants were marvelous. On Baltra Island, within the boundaries of the Charles Darwin Research Station, there is a small native garden. While browsing the garden, I finally learned the difference between the words endemic and native, because of their meticulous signage. Endemic species are native to and found only in a specific area. Native species are natural to an area but also occur naturally in other areas. Here are a few pictures.



Above left: Entrance to the garden. Above right: *Scalesia affinis*, a member of the Asteraceae family, endemic to the Galapagos Islands. Below left: *Maytenus octogona*, a native tree. Below center: Tortoises at the Research Station. Below right: Sea lions at rest in one of the parks. Photo Credits: Dianne L. Fecteau



Send your Articles and Photos

The next Issue of *The Dirt* is April 2017. The Deadline for articles is March 24th. 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.

I would like to start a photographer's gallery within the newsletter so if you take photographs of plants or trees, send them in 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.

The Dirt

Published quarterly for Master Gardeners by Master Gardeners:
April, July, October & January

UF/IFAS Advisor: Theresa Badurek, Urban Horticulture Extension Agent and Master Gardener Coordinator

Editors: Dianne L. Fecteau and Shane Palmer.

Staff: Jane Furman, Shane Palmer, Lainy McPhee. **Contributing Writer:** Debi Ford

UF/IFAS: An Equal Opportunity Institution

