

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



## Plan Your Fall Vegetable Garden Now

*By Theresa Badurek  
Urban Horticulture Extension Agent &  
MG Coordinator*

Now is the time to think about fall vegetable gardening! There are lots of crops for fall in Florida:

- Bush and pole beans, corn, eggplant, peppers, squash, tomatoes (plant in August and September)
- Brussels sprouts, carrots, cauliflower, spinach, strawberries (plant in October and November)

### 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, microorganisms will process these organic materials, like: fungi, algae, bacteria, molds, and earthworms. In doing this they make important nutrients available to plants. For information on various soil amendments, please visit:

[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).

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## Plan Your Fall Vegetable Garden 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/pdffiles/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/pdffiles/IN/IN12000.pdf>.

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

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

### 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!



**Check Out This Helpful Veggie Gardening Video Series**

[http://pinellas.ifas.ufl.edu/home\\_landscape/index.shtml](http://pinellas.ifas.ufl.edu/home_landscape/index.shtml)



## Fabulous Fireflies and You

*By Jane Morse, University of Florida/IFAS Extension Pinellas*

Do you remember those enchanted evenings when as a child you first saw a firefly or lightening bug? The sheer wonder and delight of watching their lights blink on and off was magical.

Whether you know them as Lightning Bugs or Fireflies, they are beneficial insects. They don't bite or sting, they don't attack, they don't carry disease, and they are not poisonous. The larvae (young stage) of most species are specialized predators and feed on other insect larvae, snails and slugs.

You may be interested to know that fireflies are not really flies, but beetles. All of them are members of the Lampyridae beetle family. Fireflies have developed an amazing method of communicating using bioluminescence. Each species has a unique code, or flash pattern, that they use to find a mate of their particular species and they need darkness to see and understand their fellow fireflies' flashes.



Image courtesy of Rawich at FreeDigitalPhotos.net

Male fireflies flash patterns of light to females. The females signal in response from perches in or near the ground. When the male sees the female's flash he continues to signal and moves closer. Eventually, through a series of flashes, they find each other and mate. Each species of firefly sends different mating signals. Just like there are many distinct butterfly species, there are also many firefly species, including 56 species found in Florida.

Fireflies are bio-indicators of the health of the environment, and they are declining across the world. Many insect species are in decline including many pollinator species such as bumblebees, honeybees, and

monarchs. Other insect species have already gone extinct, such as the Schaus' Swallowtail, Florida Zestos Skipper, the Rockland Meske's Skipper, and the Keys Zarucco Skipper. In addition, the Bahamian Swallowtails and the Nickerbean Blues are gone from Florida. This is really an alarming trend and a call to action. There could come a day in the near future when there won't be any more fireflies, and what a sad day that would be. *(continued on next page...)*

## Fabulous Fireflies and You continued...

It is up to us to make sure that these important insects stay with us. Here are some things we can do to help ensure their survival:

- Turn off those outside lights! This helps hatching sea turtles too, if you live near the beach. Install motion sensor lights so they only come on when needed. In neighborhoods decrease the number of street lights or have shields placed on them so they only illuminate the streets. Fireflies need darkness to communicate and find each other, and our lights interfere with this process.
- Provide a variety of habitats – trees, shrubs, unmowed grassy areas, and wildflowers. Different species of fireflies live in different habitats so they need different types and heights of plants. Neighborhoods can leave wooded areas and allow shrubby patches to grow up alongside grassy openings in parks or empty lots. Watch “Transformation of a Residential Turfgrass Lawn into a Central Florida Native Plant Landscape” in YouTube. Read “Landscaping Backyards for Wildlife: Top Ten Tips for Success” by Mark E. Hostetler. Use Florida-Friendly Landscaping materials to help you design and select plants for your landscape. Use as many Florida native plants as possible.
- Stop using pesticides. Insecticides are especially harmful because fireflies are insects. Many of their larval stages are spent in the soil, so these chemicals filtering down the soil wipe them out. If a plant needs frequent applications of insecticides, fungicides or herbicides then it is the wrong plant for the site. We are damaging our environment by applying chemicals to a non-crop plant. Natural environments, which benefit us in many ways, such as by cleaning our air and water, don’t need pesticides. Try to imitate nature as much as possible to have a healthy environment.
- Get involved with government. Let them know, first and foremost, to protect the habitats of fireflies so as to preserve these iconic creatures and other fauna and flora for the enjoyment of future generations. Become a citizen scientist. Check out this website: [https://legacy.mos.org/fireflywatch/about\\_firefly\\_watch](https://legacy.mos.org/fireflywatch/about_firefly_watch)



Image courtesy of Legacy

For in-depth information about what you can do for the preservation of fireflies see: ***The Selangor Declaration, Conservation of Fireflies*** from the [Proceedings of the Second International Firefly Symposium, Selangor, Malaysia 2010](#)

Remember it is up to you, and all of us, to actively participate and be advocates for the preservation of the flora and fauna of this earth. Only YOU can preserve fireflies!

**UF** IFAS Extension  
UNIVERSITY of FLORIDA

# How to ATTRACT FIREFLIES for Homeowners

**PESTICIDES**  
Reduce or eliminate pesticides.

**HABITATS**  
Fireflies come out at dusk or nightfall in woods or wetlands mainly during the summer.

**SHRUBBERY**  
Allow edges of your yard to grow up into shrubby areas or plant vegetation that shades the soil and contributes to preserving soil moisture.

**LIGHTING**  
Turn off all the artificial outdoor lights around our houses: flood lights, porch lights, garage lights.

**PREDATOR.**  
GROWS UP TO 1 IN LONG.  
AVERAGE ADULT LIFE SPAN IN THE WILD: ABOUT 1 MONTH.

Fireflies (also called lightning bugs) are actually beetles, not flies. There are 56 species found in Florida, and 2000 worldwide. The firefly is able to produce bioluminescence with chemicals in its body, luciferin and luciferase. Firefly larvae glow in order to warn potential predators that they taste bad. The adults of most species use this light to attract mates.

Each species has a different pattern of flashes. Though some do not emit light at all and use pheromones to attract mates. Vegetation also preserves soil moisture, which is necessary for the slugs, snails and worms firefly larvae eat. Provide a diversity of habitats to attract a diverse firefly population.

**More about fireflies on next page!**



## What Bugs Me

*By Jude Bagatti, Master Gardener*

Like most adults, I have enduring, if not endearing, childhood memories still vivid after all these years. We were a gang of North Jersey neighborhood kids, age six to ten, randomly gathering on summer days to play Tag, Spin-the-Bottle, Dodge Ball, roller skate down our hilly street, or more recklessly, climb the fence to a garage roof and dare each other to jump off. No Superman cape needed. It was a golden, more innocent time and I am forever grateful to have grown up then and there. But sometimes there was a darker side to our shenanigans.

One boy, Mando, a ringleader, always had new, bizarre ideas. One day, he shepherded us to a large, dense spider web he'd discovered woven between a trash bin shed and a wall. He had something to show us. We squatted close around. He caught a large fly (we were near garbage bins after all), pulled off its wings, and displayed the now crawling insect on his palm so we could all see. Then he tossed the fly onto the web. "Just wait," he said. We waited, cringing, watching the fly's futile struggle to escape the web. Suddenly, a big spider rushed out from a funnel-like hole in the web's corner, snatched the fly, and ran back with it into its cave. I recoiled. Others had mixed reactions. Mando was about to catch a second fly and repeat the atrocity. This was not nature taking its course. "I don't want to see *that* again," I said, and left. The sight of that fast-pouncing spider, and my empathy for what I imagined was the fly's helpless terror, have stayed with me these decades

What I did do in a friend's yard was catch Japanese beetles. Her dad's grape vines attracted the beetles. We trapped them in bottles to die unnaturally, but this, of course, was different. We were ridding the vines of a pest, protecting the bounty of grapes we'd eventually enjoy.

### Growing Up With Fireflies

Our town, Clifton, was certainly not rural and yet, nightly fireflies, or lightning bugs, were common in yards and parks. Some kids, like kids everywhere, caught and watched them glow in glass jars. I preferred them flying free like tiny mobile stars resembling flashing pinpricks of light on holiday trees. In Miami, near my former apartment, I often saw a different, strange night bug with a long, dark body and two green illuminated spots, like headlights, which did not flicker.

### Firefly Decline

Sadly, today's news about fireflies (they're beetles, not flies) is not good, nor has it been for some time. Though there are over 170 species (about 50 of them in Florida, the most of any state), their numbers are declining for the usual reasons:

- Habitat destruction
- Pesticides,
- Poor water quality
- Drought
- Even the creep of light pollution

## Mass Harvesting of Fireflies

Collecting pressure, not from kids, but from mass harvesting by chemical companies has added to their depletion. Sigma Chemical of St. Louis, MO has paid amateur collectors a penny a piece for millions of bugs yearly. Desiccated, they are sold as luciferase powder, an enzyme used to assay cellular adenosine triphosphate (ATP). The gene for firefly luciferase has since been cloned. That window of hope should eliminate the need for harvesting and keep those firefly lanterns burning!

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## Leading Firefly Expert Teaches at UF

Did you know that one of the country's leading firefly experts teaches at the University of Florida? Perhaps we can get Mark Branham to come and explain why Florida's fireflies are less visible, hiding in woods and swamps. Maybe they've heard about Mando!



## Plant ID – Blue Sky Vine

By Debi Ford

Botanical Name: *Thunbergia grandiflora*

Plant Size: **Can reach 15-20 feet**

Light: **Sun to partial shade**

Bloom Time: **Spring to early fall**

Zone: **8a to 11**

Life Cycle: **Perennial**

Colors: **Blue, white/near white, and white/lavender**

Propagation: **Division of the root ball, leaf cuttings, or herbaceous stem cuttings**

Native: **No (India)**

Invasive: **No**

Source: **IFAS**

Care: **Keep the root ball consistently moist, do not let dry out**







Image courtesy of Suat Eman at FreeDigitalPhotos.net

## Growing Olive Trees in Florida

*By Linda Smock, Master Gardener Trainee*

Did you realize that olive production in Florida is increasing annually, that it is becoming an important part of our agricultural business? Are you aware of how beautiful olive trees can look in the landscape, and what a good plant they are for Bonsai? While most of us likely think of the Mediterranean when we think of olives, there are at least 20 olive groves in Florida, and more are being added annually from Pensacola to Homestead.

Their silvery leaves flutter in the breeze creating a beautiful addition to any landscape. If pruned, they grow into a 10-12 foot tree and can live thousands of years. If not pruned, they make a much fuller bush-like tree and have the same life span.

### Growing Conditions

Olive trees grow best in well-drained, sandy soil and are both drought and salt tolerant. They thrive in areas with minimum rainfall – they do not like “wet feet.” Preferring full sun, they can do well in partial sun and will survive, especially in Bonsai form, in shade. Olive trees need protection when temperatures drop below 20 degrees, which is why there are a lot more groves in central and southern Florida than in north Florida.

According to the Florida Olive Research Institute, University of Florida, the trees use less nitrogen and more phosphorus and potash thus lessening habitat contamination issues. Deidre Davis of the Olive Grove in Brooksville, Florida grows trees organically, using charcoal grill ashes and composted cow manure three times per year. A soil test is always a wise decision if you are unsure of what your soil needs for olives.

### Best Trees for Florida

If you are going to plant a tree in your yard for fruit, make sure you have a variety that produces both male and female blossoms. Examples of plants that grow best in our area and have male and female blossoms are:

1. Spanish Arbequina (*Olea europaea* ‘Arbequina’) – most likely to produce at just 2-3 years of age
2. Spanish Arbosana (*Olea europaea* ‘Arbosana’)
3. Greek Koroneiki (*Olea europaea* ‘Koroneiki’)

The Mission (*Olea europea* ‘Mission’) and the Manzanillo (*Olea europea* ‘Manzanillo’) are also grown in Florida. Planting more than one cultivar may actually increase the fruit set and production. (*continued on next page...*)

**Growing Olive Trees in Florida** continued...

## Beyond Beauty Uses

In the Bible Old Testament, there is a note in Ezekiel 47:12 that states, “The fruit of the olive shall be for meat, and the leaf for medicine.” World historians and horticulturists have found many references to olives over the centuries. Most olives in Florida are harvested for the oil, but home growers may cure them by brining and using them in salads and pizzas. A raw olive can be eaten but is bitter and oily – not a tasty morsel unless you are really, really hungry!

Olive leaves are harvested and dried, used for tea and for a powder that is used in medicines, and may be added to meats without adding flavor, but adding nutrients. Olive leave tea has little flavor, but is delicious when infused with ginger, lemon, and other fruits and spices. It is believed to have many health benefits.

## Olive Tree Resources



Image Courtesy of Gardening Solutions IFAS

To learn more about growing olives in your landscape, check out these websites:

<http://gardeningsolutions.ifas.ufl.edu/plants/edibles/fruits/olives.html>

<http://wfrec.ifas.ufl.edu/wp-content/uploads/2014/04/FloridaOliveResearchProgram-MichaelOHaraGarcia-FullPage.pdf>

You may also visit the Olive Grove near Brooksville through [www.floridalconcerts.org](http://www.floridalconcerts.org). They have workshops on growing olive trees, making soaps, making ancient style olive oil burning lamps, and also have weddings, gatherings, and workshops.

## The Many Benefits of Grasscycling

*By Dianne L. Fecteau*

Grasscycling—the retaining of grass clippings, either by leaving them in place after mowing or using them to mulch other parts of the garden—offers many benefits.

Norman Hummel, a turf grass specialist at Cornell University, says that grass clippings left on the lawn decompose quickly and contain nitrogen, phosphorus and potassium. This means free fertilizer. It may even reduce the number of fertilizer applications required each year (Dajani, 2014 and Pendergrast, 1995).



Image courtesy of tungphoto at FreeDigitalPhotos.net

In addition, grass clippings are 90% water by weight. Allowing them to stay in place means some of that water returns to the soil (Countryside and Small Stock Journal, 1999). You also save time by not having to bag them. Concerns that leaving the clippings on the lawn can result in thatch are misplaced. Thatch, a layer of dead and living grass stems and roots between the soil and leaf blades, is not harmful if less than one-half inch in depth. An 11-year study by the USDA, found that, on an annual basis, leaving grass clippings on your lawn contributes only .03 inches to the thatch layer—far less than what would cause disease (University of Illinois). The exception to this is that you should not leave grass clippings on Zoysia grass. Sometimes, homeowners fear that if there is disease present, leaving the clippings will encourage that disease to spread. This is untrue. If disease is present, the spores remain even if you remove the clippings.

Using the clippings as mulch in other parts of your garden is yet another benefit, as long as the grass has not had any chemical treatments. The mulch will help insulate roots, reduce soil compaction, and prevent weeds and excessive water evaporation. Use a one to two inch layer for most crops or mix them into the soil.

A number of studies have shown the beneficial effects of grass clippings in crop development. For example, one study found they resulted in higher levels of fruiting as well as shorter fruiting time for oyster mushrooms (Olfati & Peyyast, 2008).

Other studies show a benefit in pest control. A Swedish study found that grass-clipping mulch increased the crop yield of cauliflower as well as reduced the damage from root maggots (International Journal of Pest Management, 1996). An article on growveg.com, noted that three thin layers of grass clippings encourages the presence of toads and box turtles. "Feeding by night, garden toads consume slugs by the dozen, and then turtles take over the early morning shift".



## The Many Benefits of Grasscycling continued...

If you have a surplus of clippings, you can store them until needed.

Finally, by using this free resource, you reduce the amount of yard waste sent to landfills. A two-year study conducted in 1995 by the University of Florida's Pinellas County Cooperative Extension Service (*Horticulture*, 1995) found that those who recycled sent 126 tons less yard waste to disposal facilities. This means 126 tons of beneficial grass clippings left in place, if you do not have Zoysia grass, or used elsewhere in the landscape as mulch.

### References

Countryside & Small Stock Journal, Jan/Feb 1999, Vol. 83, Issue 1. p. 54

Dajani, J., Grasscycling: Free Fertilizer, Free Water and Free Compost. *Parks & Recreation*. Jul2014, Vol. 49 Issue 7, p58-58.

International Journal of Pest Management, 1996. Volume 42. Issue 1.

Pendegrast, R., Grasses to grasses: debris to compost, *Flower & Garden*. Aug/Sep95, Vol. 39 Issue 4, p30.

Olfati, J. A., Peyvast, Gh., Lawn Clippings for cultivation of oyster mushroom, *International Journal of Vegetable Science*, 2008, Vol. 14, Issue 2, pp. 98-103.

Wesley, T. Clippings. *Horticulture*, April 1995, Vol. 73 Issue 4. p. 27.

<http://www.growveg.com/growblogpost.aspx?id=236>

## Book Reviews

*It's too hot to garden now, so check out these four great summer reads reviewed by fellow Master Gardeners just for you!*

### ***Container Gardens* by P. Allen Smith**

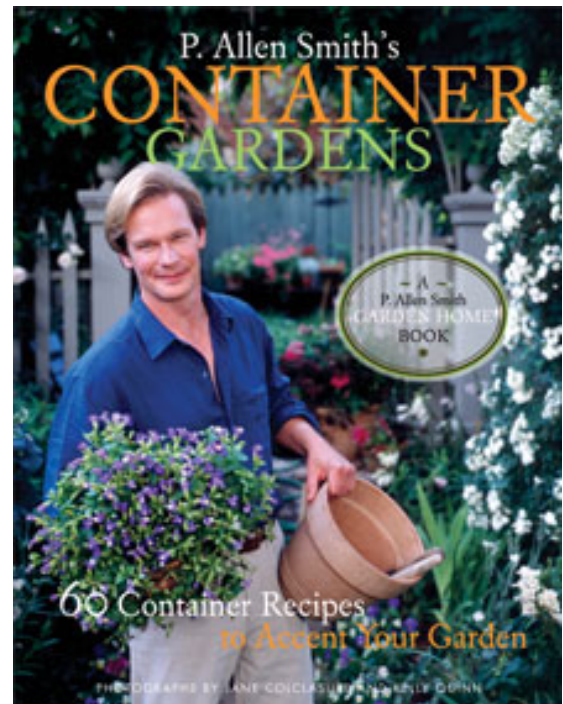
*Book Reviewed by Debi Ford*

Container gardening has never been more popular, and the variety of planter ideas, not to mention plants, is constantly growing. Many residents of Pinellas County choose container gardening for its convenience, but many choose this style of gardening out of necessity because they live in condos, apartments, or other living conditions that limit in-ground planting.

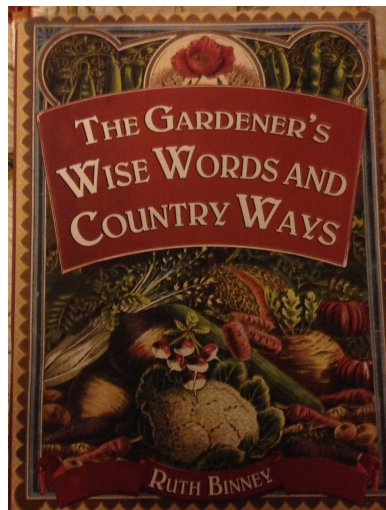
[\*Container Gardens\*](#) by author P. Allen Smith offers a wonderful guide to numerous ideas for simple, easy-to-create living artwork. The book, which offers ideas for all four seasons or the year, also addresses the basics of getting started, plant design, as well as a lesson in "container fundamentals."

Easy-to-follow diagrams help the container gardener create wonderful arrangements, simple or elaborate that enhance the beauty of the plants as well as the containers in which they are planted. For each of the 60 recipes, which include designs for both interior and exterior plantings, Smith includes information on the plants used, the container chosen and other relevant information.

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



## Book Reviews continued...



### ***The Gardener's Wise Words and Country Ways* by Ruth Binney**

*A Book Review by Lainey McPhee, Master Gardener Trainee*

I recently received Ruth Binney's *The Gardener's Wise Words and Country Ways* from my sister and I am so enjoying this little book. Having lived in England as a young woman, I always loved talking with different neighbors about their gardens, so this book does take me back.

Author Ruth Binney has accumulated a timeless, wonderful collection of gardening lore, superstition, proverbs, wise advice and practical chores in this charming book originally published in 2007.

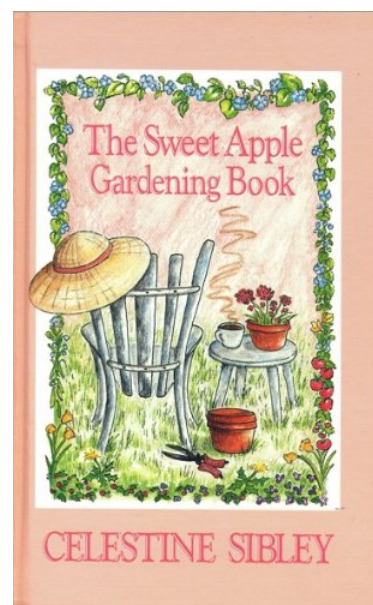
From acidic soil and gardening tools to sundials and worms, alyssums to zinnias, this enchanting book offers a little bit of everything that touches the heart of most any gardener. The book is available on Amazon.com.

### ***The Sweet Apple Book of Gardening* by Celestine Sibley**

*A Book Review by Dianna Biscaglia, Master Gardener Class of 2012*

Celestine Sibley was looking for a place to call home north of Atlanta and found what she later named Sweet Apple. Not much more than a rustic 1844 cabin with a creek out back, she saw something more, she found her place to make home and create her garden. While reading it you will feel you are with the author sitting on the back stoop contemplating her master plan, where to put the garden, how to manage the slope and where to include the wildflowers.

This is one of those books I take down from the shelf from time to time, usually when a season is changing, get a tall glass of ice tea with a sprig of fresh mint, immerse myself in my garden and begin to read it again.



Celestine Sibley was born in Alford Florida and moved to Atlanta as an adult. She was an editorial columnist for the *Atlanta Journal and Constitution* from 1941-1999, having written about 10,000 editorials as well as over 30 books. You can find this sweet book on Amazon.com.



## Book Review

### ***Natural Florida Landscaping*** by Laurel Schiller and Dan Walton

*A Book Review by Maryellen Tilly, Master Gardener Trainee*

When Master Gardeners get together we often have conversations about minimizing pesticides, and water and fertilizer in the landscape. This is easily accomplished by replacing lawn and turf with a number of native plants. Another added benefit of planting Florida native plants in your landscape is once they thrive beneficial habitats for wildlife will begin to pop up all over your property.

Since so much of Pinellas County's natural habitat has been lost due to development you can help by planting what naturally belongs in your yard. *Natural Florida Landscaping* by Dan Walton and Laurel Schiller is a useful resource for gardeners at any level that want to understand natural Florida landscaping or as Walton and Schiller refer to it, "environmentally sensitive landscaping.



Laurel Schiller has a BS in wildlife Biology and an MA in Ecology and Landscape Design. Dan Walton has a Bachelors of Chemical Engineering and a PhD in Plant Physiology

Schiller and Walton are co-owners of Florida Native Plant Nursery in Sarasota Florida Both authors are Master Gardeners.

This book is available for purchase @ [pineapplepress.com](http://pineapplepress.com).



Norfolk Island pine, *A. heterophylla*, is a common *Araucaria* seen in Pinellas County Photo credit: Ed Gilman



Detail of Norfolk Island pine showing spines and scaly texture on a young stem Photo credit: Shannon Palmer

## Prehistoric Charm for a Modern Landscape: The Genus *Araucaria*

*By Shannon Palmer, Master Gardener Trainee*

I've had a fascination with *Araucaria* trees ever since one tried to kill me when I was a kid. Five-year-old me didn't know at the time that the large, pine-like conifer growing in my backyard belonged to the genus *Araucaria* (pronounced "air-ah-KAIR-ee-uh"); I only knew it by its common name "monkey puzzle tree". One windy day, a huge pineapple-shaped cone fell from the tree's crown and narrowly missed my head while I was playing on the back patio.

By all accounts that spiny tree was a bit of a monster, but don't let my unflattering description dissuade you from learning about this ancient group of plants whose ancestors stood among the dinosaurs. Their bizarre, exotic appearance makes them interesting additions to a landscape big enough to accommodate their large size and fast growth habits.

Ancient relatives of modern *Araucarias* covered large areas of the world 65 million years ago. Today they occur in subtropical and warm temperate areas of South America, Australia and Oceania. Their large edible seeds were an important food source for native people in their natural range.

Several species of *Araucaria* are cultivated in Florida, including *A. araucana* (monkey puzzle tree), *A. bidwillii* (Bunya pine, false monkey puzzle tree), *A. heterophylla* (Norfolk Island pine), and *A. angustifolia* (Paraná pine, Brazilian pine, candelabra tree). Despite their misleading common names, *Araucaria* are not true pines. The Norfolk Island pine, *A. heterophylla*, is one of the most common *Araucarias* that I see in Pinellas County. One of the benefits of this particular species is that its leaves are smaller, softer, and more finely textured than those of the other three species. *(continued on next page...)*



*Araucaria angustifolia*. Photo credit Shannon Palmer



Close-up showing rigid, spiny leaves of *A. angustifolia* Photo credit Shannon Palmer

## Prehistoric Charm for a Modern Landscape: The Genus *Araucaria* continued...

General growth and cultivation characteristics for most of the *Araucarias* we see in Florida can be summarized as follows (for more information about specific *Araucaria* species, reference the IFAS publication links at the end of the article): They are evergreen and usually dioecious (separate male and female) trees. They enjoy full sun, and can grow in a variety of soil types as long as it's well drained. They have moderate salt tolerance and moderate to high drought tolerance. They are moderate to fast growers capable of becoming quite tall (80+ feet), but their height is often limited by lightning strikes in the Southeastern US. Young trees have an attractive pyramidal shape, while older ones may develop a more domelike, flattened canopy. Their sparse, open foliage make them poor shade plants. Side trunks on young trees should be pruned to maintain a single main trunk. Some species may produce messy (and sometimes spiky) leaf litter. Large seed cones only occur rarely in cultivation. Larger species such as *A. angustifolia* are best planted away from structures and walkways, but can make an attractive centerpiece in a large yard or park. Small specimens of *A. araucana*, *A. bidwillii*, and *A. heterophylla* can be kept as indoor container plants for a long time as long as they're not overwatered. They have few to no pest problems.

For further reading, check out these IFAS resources:

***Araucaria araucana*:**

<https://edis.ifas.ufl.edu/pdffiles/ST/ST08100.pdf>

***Araucaria heterophylla*:**

<https://edis.ifas.ufl.edu/pdffiles/ST/ST08300.pdf>

***Araucaria bidwillii*:**

<http://edis.ifas.ufl.edu/pdffiles/ST/ST08200.pdf>

***Araucaria angustifolia*:**

<http://edis.ifas.ufl.edu/pdffiles/EP/EP50900.pdf>



## She's a Beauty, Not a Beast!

By Angela Strain

A few weeks ago I took advantage of a break in the weather and did some weeding of my garden beds. I was completely focused on the task and not paying attention to my surroundings. After a while, I stood up to give my back a stretch and came face to face with what I consider my *bête noire*! A huge, colorful **spider** as large as my hand was bouncing as if doing vertical sit-ups in the center of its gigantic web. This web must have been 3 feet long and 2 feet wide and attached to the edge of my pool cage and surrounding foliage.



Black and yellow *Argiope aurantia*. Image courtesy of UF IFAS Extension

Because I am a true self described *Arachnophobe*, the sight of it actually took my breath away and I was frozen in place for a few seconds that seemed much longer. The adrenalin was pumping and the question for me was do I flee or fight? Of course I chose flee. I had no desire to tangle with this monster. I decided I had worked long enough in the garden and now needed a break to formulate an action plan to eliminate this perceived threat. I have lived and gardened here for 20 years and have never seen one of these; so my best guess is that it rode in on a piece of yard maintenance equipment. This is not a critter I would have missed.

### UF Offers Lots of Spider Info Online

I backed slowly away from the web, headed for the safety of the house and fired up my computer to consult the University of Florida's web site. I searched for "common spiders of Florida" and found a document that created a dilemma. As it turns out there are two specimens that fit the profile – both are colorful, large, and create huge decorative webs. The only anomaly I found was that these spiders usually lived on the edge of woodlands, and I don't particularly consider my city garden to be woodland.

The first likely choice was the black and yellow argiope spider, the *Argiope aurantia*. Again huge – 25mm long, but I am pretty sure that doesn't include the long legs. The legs have black decorative bands and the web is large and contains zigzags of thicker web material near the center. The next choice was *Nephila clavipes*, the golden silk spider. These females grow to 40mm long and have black hair tufts on its long legs. The males are significantly smaller in both species so I was pretty confident I had a female. (*continued on next page...*)



## Spiders Are Beneficial continued...

Further research revealed that they are **not venomous** - really good news - and don't bite unless captured. They are safe from me. They both feed on insects such as aphids, flies, and grasshoppers they trap with their webs. That means they are **beneficial** additions to the garden and I should leave them in peace. If frightened by a human they quickly drop down into the surrounding vegetation and hide. Unfortunately, I needed to revisit her web and take a better look.

I decided I had *Argiope* because of the extra zigzag that my specimen wove into her web. Over the next few days I checked on her often and even invited neighbors to take a look. Most human adults displayed a cautious curiosity, but children were mystified by her size and festive colors. A few of them wanted to touch her and take her to live in their gardens. One wanted to name her Charlotte, but I explained that name was taken by a much more famous spider, so we settled for Charley instead.

Charley stayed for maybe two weeks and as suddenly as she appeared, she was gone leaving only the remnants of her giant web. Maybe she was lunch for a great blue heron or maybe she moved to a yard that didn't have so many visitors.

I learned that not all giant spiders are dangerous and I made a few friends with the kids of the neighborhood. If they can't remember my name, they just call me "the spider lady." I suppose it could be worse.

More information and images of common Florida spiders can be found at <https://edis.ifas.ufl.edu/pdf/files/IN/IN01700.pdf>

## Ornamental Grasses – Add a “Wow-Factor” to Your Garden *By Debi Ford*

One of the most interesting garden ideas in the last several years is the use of ornamental grasses and grass-like plants in your garden or as a garden bed unto themselves.

Ornamental grasses come in a variety of sizes and colors. They also add wonderful texture and interest to any garden all year long. Even the dried seed stalks can offer textural interest in the garden during the months when the plants are at rest.

You will likely find a small variety of these types of plants in your local nursery, but there are so many more to consider, and lots that are native to Florida. Grasses are a wonderful way to attract wildlife, such as birds and butterflies, into your garden as well.

True grasses are in one family and grass-like plants are in two other families – sedges and rushes. (Sedges will have an angular blade while rushes will have a round stem.)

### Rules & Right Conditions

When deciding on individual plants or mass plantings, the same good rules of gardening apply –the right plant in the right place. Of course, you’ll need to make sure of the zone you’re gardening in and select plants that will do well in your area. Many grasses will self-seed, meaning that they will drop their seeds and generate new plants on their own. You may also propagate your ornamental grass by division, but be sure to follow the correct procedure for the type of plant you choose.

You’ll need to plan for the right conditions to make sure you get your plants off to a good start. Ask yourself these questions:

- Do you want a perennial grass that will remain in your garden, or an annual with a shorter life span?
- Wet or dry area?

*(continued on next page...)*



Purple Muhly Grass (*Muhlenbergia capillaris*) image by Debi Ford

Clumping, semi-evergreen  
2 to 5 feet high  
2 to 3 foot spread

Purple Muhly grass is native to Florida and a wonderful addition to landscapes, providing seasonal interest all year long. The stiff upright clumps give way to soft, feathery pink/purple flowers in the fall. When used as a mass planting, the effect is quite dramatic.

## Ornamental Grasses – Add a “Wow-Factor” to Your Garden continued...

- Sun or shade, or a combination?
- What’s your planting zone?
- Do you want one variety to make a statement or go for a mixture of heights, colors, and textures?
- What’s the mature size of the plants you would like to incorporate?

If you are planning to plant one variety in a statement bed, make sure the entire bed will receive the same conditions so you’ll have optimal success with all plants in that bed. If you want something with more variety, then plan your bed accordingly.

### Step One – Site Selection

Select your site and then select the varieties that will work best for that location. It’s a good idea to draw out your plan on paper so you can adjust plants of different heights and colors to achieve the final look you desire. This will save lots of time on planting day. Make a list of the plants you want to include in your site and include the important characteristics of each variety when it comes to height, color, texture, and similar issues. Assign each variety a code of some kind, a number, letter or other mark. (See chart below.)

### Step Two – Placement Tips

Next, draw the outline of your planned site and using your variety codes and begin to layout your plants. If you have trouble picturing what a flat design will look like, you might even want to make paper cutouts of photos of the plants you like for a 3-dimensional effect so you will have an idea of what the final design will look like. Move the cutouts around until you have the design layout you want. Remember to take into account the height of the plants so you don’t wind up “losing” some smaller plants behind larger ones.



Fakahatchee grass (*Tripsacum dactyloides*) image from UF IFAS Extension

Clumping, deciduous  
4 to 6 feet high  
4 to 6 feet spread

Fakahatchee grass is another native grass that’s popular for a number of reasons. The tall dark green foliage adds textural interest to the landscape. The flowers (cream/orange/red/yellow) while not showy appear in the spring and summer.

## Ornamental Grasses – Add a “Wow-Factor” to Your Garden *continued...*

Your paper plan does not have to be complicated. You'll still have some adjusting to do depending on the actual plants you purchase. The paper plan is really a tool to help you organize your idea before you're standing outside lugging pots from one location to another over and over again.

### Step Three – Test Your Soil

Before planting, make sure to test your soil, correcting any deficiencies. Add mulch after you plant to help retain moisture and keep weeds to a minimum. As with all plants, apply the correct amount of water to establish the plants, and when needed, fertilize appropriately.

The addition of lighting, wired or solar-powered, as well as statuary, a water feature, or other ornaments, can add additional interest to your site. Enjoy planning and planting your ornamental grasses.



Florida Gama Grass (*Tripsacum floridanum*) image by Debi Ford

Clumping, evergreen  
2 to 5 feet high  
2 to 3 feet spread

Gama grass – a Florida native – has become a popular ornamental grass in landscapes. It grows in arching clumps to 3 feet in height and has narrow leaves with a serrated edge. The brownish flowers are held above the foliage and are produced spring through fall.

Resource: UF-EDIS, Considerations for Selection and Use of Ornamental Grasses by Mack Thetford

Florida Yards.org

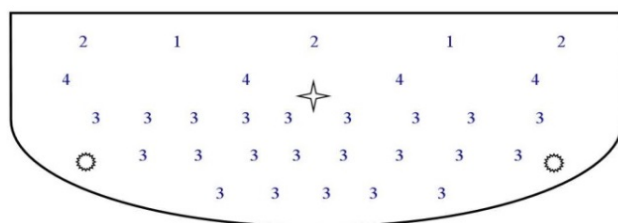


## Ornamental Grasses – Add a “Wow-Factor” to Your Garden continued...



Here's a sample of plant selection options:

| Code | Variety                                    | Height         | Spread           | Light                         | Water                                 | Color                                     |
|------|--------------------------------------------|----------------|------------------|-------------------------------|---------------------------------------|-------------------------------------------|
| 1    | <i>Miscanthus<br/>sinesis</i><br>Zebrinus  | To 8<br>Feet   | 4 to 6<br>Feet   | Full Sun                      | Moist soil<br>but can<br>tolerate dry | Green with yellow<br>horizontal stripes   |
| 2    | <i>Cymbogon<br/>citratu</i><br>Lemon Grass | 5 to 6<br>Feet | 3 to 4<br>Feet   | Full Sun                      | Average<br>water needs                | Green grows tall seed<br>stalks           |
| 3    | <i>Carex<br/>oshimensis</i><br>Ice Cream   | 1<br>Feet      | 1<br>Feet        | Full Sun<br>to Light<br>Shade | Moist<br>conditions                   | Whitish-green                             |
| 4    | <i>Pennisetum X</i><br>Burgundy<br>Giant   | 4 to 6<br>Feet | 10 to 12<br>Feet | Full Sun                      | Average<br>water needs                | Burgundy leaves with<br>golden seed heads |

Here's an example of a simple placement plan:



- 1 - Zebra Grass
- 2 - Lemon Grass
- 3 - Ice Cream
- 4 - Burgundy Giant

-  - Solar light stake
-  - Small Statue

Design by Debi Ford



Image by Agnes Touris Image by Agnes Touris

## A Master Gardener in Monet Gardens

*by Agnes Touris*

In May 2015, I had the privilege of visiting the Monet Gardens in Giverny, France. I wasn't sure what to expect, as I was never a big Impressionist enthusiast, but my love of gardening made this one of the highlights of the trip.

It turns out this was the polar opposite from the Flower and Garden Show at Epcot that I had visited just 2 weeks prior with their rigid topiary displays.

Claude Monet used his gardens for most of his paintings, and I could see how easily a gifted artist could do that. The tulips were breathtaking, although showing signs that they would not be around much longer, but the geraniums were laying in wait for their time to show off. Iris, one of my favorites, turns out to be Monet's favorite, also, and there were many different Iris, including multicolored ones. The water lilies, the focal point of many of Monet paintings, were not in bloom yet, but the wisteria covering the bridge over the pond was out in full force. The reflections in the pond from all of nature's beauty made a masterpiece by itself and you can understand his inspiration. Flowers were in large clusters and the gardens overflowing. You could not imagine how a weed would find a place to pop out with their overabundance.



Image by Agnes Touris Image by Agnes Touris

I have recently found out from Anna Marchand, a Master Gardener trainee that you can volunteer to weed the gardens of Monet, which would be the ultimate addition to your Master Gardener credit hours. I know it would add to a life long experience you would not soon forget, when many other memories start to

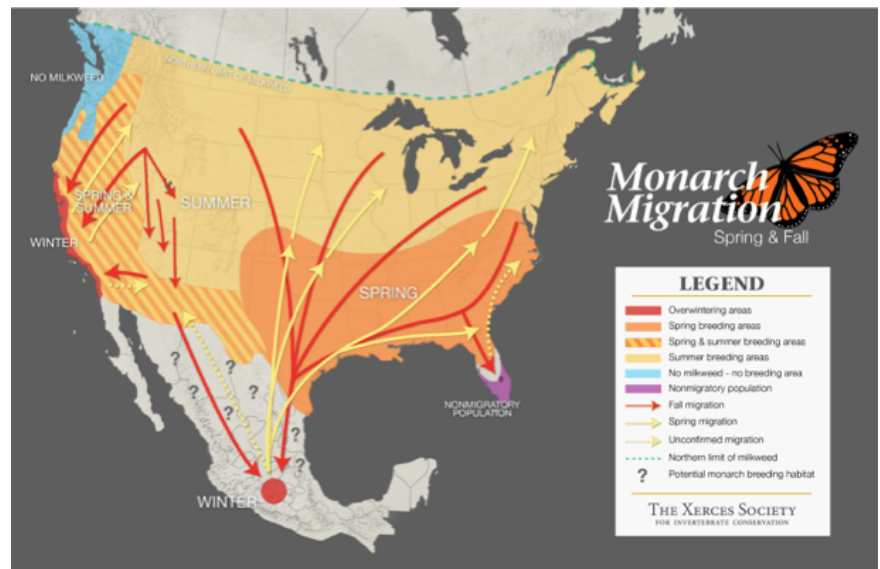
## The Beloved Monarch Butterfly

by Melinda Moreschi, Master Gardener Trainee

Inhabitants of planet Earth for more than 10 million years, the monarch butterfly (*Danaus plexippus*) embarks on a herculean journey each year. With populations on both the east and west coasts of the United States and southern Canada, monarchs breed throughout the spring and summer. In the fall, Western monarchs migrate to select sites along the California coast and eastern monarchs migrate to the mountains of Mexico. With paper thin wings and weighing less than a gram, tens of millions of Eastern monarchs travel as far as 3,000 miles in a span of 2 months. It is uncertain how they navigate this great distance. It is believed they rely on specific angles of the sun and the magnetic pull of the earth.

While overwintering in the forests of Mexico, the monarch spends over four months in a reproductive diapause, a state of inactivity. When the weather warms, clouds of monarchs make their way back home to the United States and Canada. It takes up to four generations for the full migration to be completed. Only monarchs born in September and October live eight or nine months, long enough to migrate to Mexico, overwinter there and then travel back to the southern United States to lay eggs. Successive generations have a shorter lifespan, four or five weeks, during which they are concerned primarily with reproducing. When summer ends, the third or fourth generation finally makes it back their predecessor's breeding grounds. The monarch migration is one of the most magnificent natural wonders in the world.

Monarch migration. Reprinted with the generous permission of the Xerces Society



In the past few years, there has been a steady decline in the monarch populations overwintering in California and Mexico. Intensifying agricultural production along the monarch's migration route, the blanket use of pesticides and herbicides to control weeds and pests, and illegal logging in the monarch's overwintering forests in Mexico, have contributed to the decline. Although monarchs as a species are not endangered, the remarkable phenomenon of migration is in peril. In August 2014, the Xerces Society, The Center for Food Safety, The Center Biological Diversity and renowned monarch scientist, Dr. Lincoln Brower, submitted a petition requesting the monarch butterfly be listed as "threatened" under the Endangered Species Act.



## The Beloved Monarch continued...

To help the monarch butterfly, Monarch Joint Venture, an organization dedicated to the conservation of the monarch migration, recommends the following:



*The butterfly is a flying flower,  
The flower a tethered butterfly.*

~Ponce Denis Écouchard Lebrun

Monarch cluster. Photo credit: Carly  
Voight Xerces Society

**1.** Plant native milkweeds whenever possible. Call your local native nursery and ask them to carry native milkweeds. Be sure to ask if the seeds are sourced locally and if the plants are free of any pesticides. See photos of native milkweed varieties below: Figures 3 through 6.

**2.** If you have tropical milkweed in your garden, cut it back to 6 inches from the ground from October to February. Continue to cut milkweed every couple of weeks if leaves sprout again. See Figure 7 below.

It is important to note that a non-migratory monarch population lives in southern Florida (south of Orlando). These monarchs breed year round and because they don't migrate from this area, a high level of the parasitic protozoa OE (*Ophryocystis elektroscirrha*) persists in this population.

According to Wendy Caldwell at Monarch Joint Venture, cutting back your milkweeds on occasion is a good practice to allow new growth, which eliminates the build up of OE spores on the plant. See links below for more information.

**3.** Gradually replace your tropical milkweed with native milkweed species.

**4.** Ask local growers to produce native milkweeds.

**5.** Become a citizen scientist and participate in research efforts with:

- Monarch Health: <http://monarchparasites.org>
- Monarch Larva Monitoring Project: <http://mlmp.org/>
- Monarch Watch: <http://monarchwatch.org/>
- Journey North: <http://learner.org/jnorth/monarch/>

**6.** Don't forget to plant nectar plants for the adults!

*(continued on next page)*



## The Beloved Monarch continued...

For a list of native plants see:

<http://www.flawildflowers.org/resources/pdfs/pdf10/WildflowersandButterflies.pdf>



**Figure 3.** Sandhill/Pinewoods milkweed, (*Asclepia humistrata*). Credits: Jerry Butler, University of Florida.  
Habitat: dry, sandy areas and soils



**Figure 4.** White swamp milkweed, (*Asclepius perennis*). Photograph by Donald Hall, University of Florida. Habitat: hydrated soils



**Figure 5.** Butterfly milkweed, (*Asclepias tuberosa*). Photograph by Donald Hall, University of Florida.  
Habitat: well-drained soils



**Figure 6.** Pink swamp milkweed, (*Asclepius incarnata*). Photograph by Donald Hall, University of Florida. Habitat: moist to wet soils



**Figure 7.** Tropical/Scarlet milkweed, (*Asclepias curassavica*). Photograph by Donald Hall, University of Florida

**SEE Helpful Links: continued on next page...**

## The Beloved Monarch continued...

### HELPFUL LINKS:

To identify native milkweed species in Florida see *Atlas of Florida Vascular Plants*:

<http://www.florida.plantatlas.usf.edu/Results.aspx>

**Bring Back the Monarchs Milkweed Regions & Seed Needs** provides information on native milkweeds in your area: <http://monarchwatch.org/bring-back-the-monarchs/milkweed/milkweedregions-seed-needs/>

### Plant Milkweeds for Monarchs:

<http://monarchjointventure.org/images/uploads/documents/MilkweedFactSheetFINAL.pdf>

In other areas of the United States you can visit the **Biota of North America Program (BONAP)** North America Plant Atlas to find county-level distribution information for milkweed species:

<http://bonap.net/NAPA/TaxonMaps/Genus/County/Asclepias>

**Milkweed seed finder:** <http://www.xerces.org/milkweed-seed-finder/#search>

### Purchase Milkweed plugs at Monarch Watch' Milkweed Market:

<http://monarchwatch.org/milkweed/market/>

**Project Milkweed:** [www.xerces.org/milkweed](http://www.xerces.org/milkweed)

### Monarch Butterflies Eastern United States:

[www.xerces.org/wp-content/uploads/2014/03/Monarch-Butterflies-East-Region.pdf](http://www.xerces.org/wp-content/uploads/2014/03/Monarch-Butterflies-East-Region.pdf)

**Gardening for Monarchs:** <http://monarchjointventure.org/images/uploads/documents/GardeningforMonarchs.pdf>

### Potential risks of growing exotic (non-native) milkweeds for monarchs:

[http://monarchjointventure.org/images/uploads/documents/Oe\\_fact\\_sheet.pdf](http://monarchjointventure.org/images/uploads/documents/Oe_fact_sheet.pdf)

### Q&A regarding research related to tropical milkweed & monarch parasites:

<http://monarchjointventure.org/news-events/news/qa-about-research-related-to-tropical-milkweedand-monarch-parasites>

Link to video of egg hatching - <http://www.youtube.com/watch?v=1Vw4-FnAtgw>

Link to video of caterpillar forming chrysalis - <http://www.youtube.com/watch?v=DKjG1vm5F84>

Link to video of adult emerging - <http://www.youtube.com/watch?v=TTa-HMMi7yc>

**Next Issue of *The Dirt* is October 2015  
Deadline for Articles is September 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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