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Extension Update by Larry Figart

“The difference between the almost right word and the right word is really a large matter - 'tis the difference between the lightning-bug and the lightning .” -Mark Twain

On a recent trip to Ichetucknee Springs State Park I began to think about what I would do should a thunderstorm pop up. After I got back home I checked out OSHA’s Lightning Safety website. Some things I learned were:

- 10% of all lightning strikes occur without rain at the spot where lightning struck.
- The only safe places are indoors in large buildings (not camp bathrooms, etc.) and in metal roofed vehicles.
- If you hear thunder within 30 seconds of seeing a lightning strike, it means that the storm is less than 6 miles away and you should move indoors immediately.

Since Florida has more lightning strikes than any other state it is important that we stay aware of weather conditions when outside.

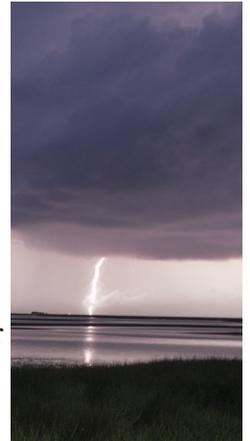


Image Credit: UF/IFAS

What's That (answers on page 6)

Plant



Inflorescence (flower)



Seeds



All images credit: Chris Kerr UF/IFAS



Around the Yard by Tonya Ashworth

Bringing the Butterflies Home

Nothing brings whimsy and fun into the garden quite like butterflies. Butterfly gardens make attractive landscape features as well as provide habitat for butterflies and other beneficial insects. Food, shelter, and water sources should be provided to make your backyard habitat a success. Shelter for a butterfly garden? Yes! Have you ever wondered where the butterflies go when we get those strong afternoon storms all summer? They tuck themselves away in tree bark crevices or between fence slats. A simple pile of logs that you have stacked up for them would be much appreciated too, especially if there are no large trees nearby.

Butterflies can't land on standing water, so birdbaths don't help them much. However, you can provide minerals and nutrients with a butterfly puddler. To make one, get a shallow plant saucer or similar shaped dish and add compost. Then wet it so that you have a mud pie. It should be wet but without standing water. The butterflies will land and get needed nutrition from the compost water.

Plant selection is the most critical part of attracting butterflies to your property. The insects will utilize different plants for different stages of their lifecycles. The adults will drink nectar from a wide variety of blooming plants but will only lay their eggs on host plants specific to their species. Once the eggs hatch, tiny caterpillars emerge onto the host plant sought out by their mother and start eating. They will eat constantly, stopping only to undergo a few molts as they grow and get ready for their next stage in the chrysalis. This means that you may attract some butterflies with flowers, but to really keep them around or to attract the specific butterflies you want to see, you should incorporate their host plants into your design.



Monarch on Milkweed
Image credit: Tonya Ashworth UF/IFAS

Planting for a specific butterfly is exactly what my husband, Daniel, did this weekend. When we moved to Florida, we were gifted a beautiful non-native passionflower, *Passiflora caerulea*. The gulf fritillaries love it, and we see at least a couple of bright orange friends flying around the vine every time we look out the kitchen window. We have been enjoying this vine and the associated butterflies so much that we wanted to try to attract some zebra longwings too. Some had been seen in our yard, but they were most likely there for the firebush, which is one of their favorite nectar plants. So, when a local nursery posted on social media that they had received a shipment of natives, Daniel went right over and picked up two passionflower species, *P. incarnata* and *P. suberosa*, the purple passionflower and corkystem passionflower, both larval hosts plants for the zebra longwing. While we haven't had a zebra longwing yet, not two hours after planting, the gulf fritillaries had already discovered the new additions to the yard.

If we had more room and lived near a wooded area or backed up to a preserve, we might be able to plant host plants for the tiger swallowtail, which lays eggs on white ash, tulip poplar, or wild cherry trees. Even in a smaller yard, there might be room for a sweet bay magnolia (*Magnolia virginiana*). This tree is beautiful all by itself with lemon-scented white flowers and foliage with silver undersides that show in the breeze. The tiger swallowtails will use it as a host plant too.

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Out on a Limb by Larry Figart

Recognizing Problem Trees Before the Storm

As afternoon storms become a regular occurrence, thoughts turn to the trees around our home. You may be wondering if they are safe, or if they can hold up against the wind of a thunderstorm, tropical storm, or even a hurricane. While there is no “risk free” tree, a tree can provide signals, or clues to any defects it may have. A tree does not have to be dead to have structural problems. An observant homeowner with a little knowledge can detect problems in their trees and have them taken care of before damage occurs.

Most property damage from trees during storms occurs because of some sort of failure in the structure of the tree. Tree failure can be lumped into three categories: branch failure, trunk failure, and root failure. A periodic tree inspection of the branches, trunk, and root area can reveal problems before they become major ones. To find an ISA Certified Arborist to help with the tree inspection, go to <https://www.treesaregood.org/findanarborist/arboristsearch>.

The most common type of tree failure is a branch failure. This is also the easiest type of failure to prevent. When you are out in your yard, look up. Take note of any large dead branches. Observe how the major branches are attached to the trunk. If the attachment of the branch looks like a "V" rather than a "U", it is a weaker branch attachment. The reason V-shaped branch attachments are a problem is because bark gets imbedded in the joint as the branches grow together and weakens the attachment. This condition can be even more of a risk when the tree has more than one trunk. Multi-trunked trees are especially prone to splitting apart because of poor branch attachment.

I often hear that trees should be thinned out so that wind blows through them. This assumption was proven wrong by research from the University of Florida that showed properly pruned trees had considerably less damage than unpruned and improperly pruned trees. Improper pruning by over lifting the crown through the removal of large lower limbs and thinning out interior branches resulted in more damage to the tree during windstorms. Properly pruning trees by using reduction cuts and structural pruning resulted in trees that resisted wind and therefore received less damage.

Trunk defects are a little harder to detect than branch defects. The most obvious type of trunk defect is a cavity. Large cavities with decay should be inspected. Any vertical crack in the trunk of the tree that goes into the wood of the tree is a warning sign of structural problems and a horizontal crack is a sign of imminent trunk failure. Any mushroom or mushroom like fruiting structure coming out of the trunk of the tree is a sign that the tree has internal decay. If you have cavities, mushrooms, or cracks in the trunk of your tree, the tree should be inspected by a tree professional. There is no way of knowing how much of the tree structure has been lost to decay without further testing. Some arborists are very good at using a low-tech rubber mallet to determine the extent of internal defects while other arborists in our area have specialized equipment such as resistographs, and shigometers that can help determine the extent of decay. The arborist inspecting the tree may recommend pruning or cabling to relieve stress on the trunk, however if the defect in the trunk is serious, removal of the tree may be the only means to solve the problem.

Even though most roots are underground, many root defects can be detected with a little inspection. The



Included bark means a weak attachment
Image credit: Larry Figart UF/IFAS

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Growing in the Garden written by Beth Marlowe

Hitting the Pause Button on Vegetable Gardening?

It Might Be a Better Idea Than You Think!

If you're new to vegetable gardening in Florida, you may wonder why we would want to pause growing vegetables in July and August. After all, summer has just gotten started! But after trying to garden through the heat, humidity, insects, fungi and storms that characterize our summers, you may welcome a chance to take a break and prepare for fall. You may even want to go on vacation! There are lots of things you can do now to be ready for cool season gardening and keep harvesting from our most heat-tolerant crops. All without breaking (too much of) a sweat.

Remove Spent, Unproductive or Diseased Plants

Some warm season crops are much happier here in the spring. By the time our intense summer heat hits, they become unproductive and become magnets for insects and disease. Examples are most large slicing tomatoes, some bell peppers, yellow and zucchini squash, many greens, cucumbers and beans. Others, like corn or determinate tomatoes, may be finished producing. Harvest as much as possible by the 4th of July or so and pull up plants as they decline. By doing so you may avoid disease and insect problems that could linger for many seasons.

Keep Only the Most Heat Tolerant and Hands-Off Crops

There are some crops that can take the heat with few problems and require little to no help. Hot peppers often sail through summer and produce prolifically with little more than watering during dry spells. Cherry tomatoes and eggplants may continue producing if they are well established. Okra is a heat lover that is generally care-free—but you may have to harvest young pods almost every day. Seminole pumpkin is not generally bothered by insects or disease, and it will happily take over your backyard while you enjoy the air-conditioning!

Repair, Replenish and Solarize Beds

If you do pull up spring crops, take a day to get your beds ready for the next season before you go inside or on vacation. Weed, add bed mix and organic matter and replace otting boards if needed. Remove irrigation lines and emitters. Then go the extra mile and cover your bed tightly with clear plastic to solarize the soil. Solarizing uses the heat of the summer sun to kill weed seeds and pathogens in the top few inches of soil. When you're ready to plant in the fall, remove the plastic and plant without disturbing the soil.



Seminole pumpkins are typically tolerant of summer conditions.
Image credit: Beth Marlowe UF/IFAS



Solarizing a raised bed
Image credit: Beth Marlowe UF/IFAS

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Growing in the Garden by Beth Marlowe (continued from page 4)



Inspect and repair irrigation
Image credit: Beth Marlowe UF/IFAS

Repair, Plan or Install Irrigation for Fall

Micro- or drip irrigation helps make gardening easier, but it requires periodic maintenance. Drip tape or tubing develop holes, fittings come apart, and emitters become clogged. Take time now to check your system components and repair them if needed. You may also want to consider a different type of irrigation line or emitter for the next season. Match your intended crop and spacing to the emitter type and spacing. If you need to purchase any new parts, do so now.

Process or Purchase Seeds

If you have saved seeds from open pollinated crops, you may need to separate them from the flower heads and other parts, dry them and package them for longer term storage. To keep your seeds viable for as long as possible, store them in cool, dry and dark conditions—and don't forget to label them! You can also enjoy reading seed company websites and catalogs

and look for other seed sources. Research varieties to try; take a class; or pre-order crops such as garlic or onions that we plant in the fall.

Prepare Your Space for Fall Seed Starting

We often start our cool season vegetable seeds in late August. If you want to start your own seeds, read about supplies you will need, decide on a space, and make any purchases necessary. You can also sign up for our Fall Vegetable Seed Starting Workshop (<https://www.eventbrite.com/e/fall-vegetable-seed-starting-workshop-tickets-668790720047>) for a hands-on seed starting experience, or our Intro to Fall Vegetable Gardening Webinar (<https://www.eventbrite.com/e/intro-to-fall-vegetable-gardening-webinar-tickets-668815825137>)

Get Organized with a Garden Planner

Many people garden successfully for years without keeping written records. But if you want to learn as much as possible about what you are planting and how it is performing for you, consider making or purchasing a garden planner. Or simply start a spreadsheet with multiple tabs. Keep track of seeds purchased, planting and harvesting dates, weather, any problems encountered and solutions you tried. Record weight of crops, taste impressions and information about seed saving. Draw out a schematic of your garden bed space and plan crop rotations for the upcoming season. Looking back over past seasons will help you improve your skills and focus on the crops that do best in your yard.

Kick Back and Read a Good Gardening Book

After all that, get a cool glass of iced tea and read a book that will help you grow and expand your gardening skills and knowledge. If you're not sure where to start, check out some of the titles at the UF (University of Florida) IFAS (Institute of Food and Agricultural Sciences) Extension Bookstore online. You may be able to find them at your local public library too. So, enjoy those last dog days of summer knowing that you're ready for fall!

Friendly Landscapes by Stephanie Means

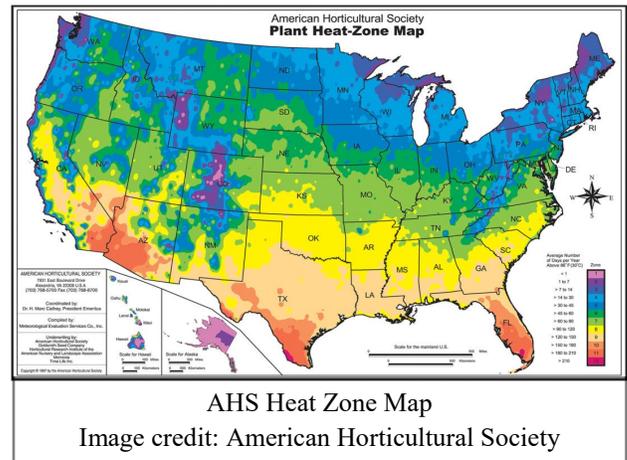
Know Your Heat Zone

Placing the right plant in the right place is crucial for gardening success, especially in the challenging climate we have here. Most of us are familiar with plant hardiness zones but have you heard of heat zones?

The lush and elegant garden of @Magdas_garden is one of my favorite plant related accounts to follow on Instagram. The ambiance she has created in her garden with perfectly placed architectural and sculptural elements, lush plants, and thoughtful lighting is unrivaled. Every inch of her property is filled with beauty and every view is pure magic. Magda lives in the Western part of Canada near Vancouver. It is in the Canadian equivalent of USDA Hardiness Zone 8b/9a which happens to be the same as Duval County. Yes, you read that right—Canada--the same growing zone as NE Florida! That must be some mistake, right? I never thought of Canada as being remotely semi-tropical like Jacksonville. Well, I did a little research, and sure enough it's a very temperate location due to its proximity to the sea and warm ocean currents.

The more posts I looked at, the more I started to notice some of the plants Magda has growing alongside common NE Florida plants such as palms, oleander and bougainvillea are notoriously difficult or impossible to grow here; hosta, coral bells, ranunculus and rhododendron to name a few. How could that be if we are in the same growing zone, I wondered. So, I started digging a little deeper and discovered a SECOND zone system for gardening--the Heat Zone! While the USDA Plant Hardiness Zone map considers the average **low** temperatures of a region it does not factor in the average high temperatures.

Heat zones are the high-temperature equivalent of cold hardiness zones. In 1997 The American Horticultural Society (AHS) developed a Plant Heat Zone Map that also divides the country into twelve numbered zones. Find it here: <https://ahsgardening.org/>. The map's twelve zones are based on the average number of "heat days" per year – days that temperatures rise above 86 F. "That is the point at which plants begin suffering physiological damage from heat," AHS explains. The area with the least heat days is zone 1, while that with the most heat days is zone 12. Coastal Duval County is zone 8 and inland is zone 9.



Assuming plants are receiving adequate water, heat damage is slow and subtle. Plants die quickly when they freeze, but plants suffering from heat stress can linger on for years, showing a myriad of symptoms from bud drop to chlorosis and eventual death. The ability of a plant to survive can be affected not only by watering, but also by light exposure, air circulation, and proximity to nearby structures, among other factors. For example, placing a "full sun" plant in a morning sun only location might be appropriate if you are in the plant's hottest recommended heat zone.

Right plant, right place is one of the cornerstone principles of Florida Friendly Landscaping™. The next time you're out plant shopping, consider the heat tolerance as well as the cold tolerance of the plant you're purchasing. Remember that full sun here might be a lot hotter than full sun in other parts of the country! Unfortunately, most nursery plant labels are not location specific, nor do they indicate the AHS Heat Zone, but that is slowly changing. Thousands of garden plants have been coded for heat tolerance, and more are being added. The Florida Friendly Landscaping™ Plant Guide found here: <https://ffl.ifas.ufl.edu/resources/apps/plant-guide/> is a wonderful resource that takes the guesswork out of finding plants that will thrive in this climate.

Around the Yard by Tonya Ashworth (continued from page 2)

One of the first premises of gardening for wildlife is that you should use vertical layering. Vertical layering just means that you design your landscape for different heights and layers of plants. You would have a tree layer, a shrub layer, maybe a layer of perennials and a layer of groundcovers. Different butterfly species can use plants that fit in all these layers. The common yaupon holly is a host plant for the Henry's elfin. This little brown butterfly may not be the queen of the garden, but still adds to the diversity of your yard. For the perennial layer, everyone knows that milkweed is the host for monarchs. But, did you know that plumbago, which is readily available at any garden center, is the host for the cassius blue, a small but beautiful insect? In the shortest plant layers, you can introduce the native twinflower (*Dyschoriste oblongifolia*), which only gets a foot tall and has light purple flowers, borne in pairs. Or, how about turkey tangle frog fruit (*Phyla nodiflora*), a tiny groundcover of a plant that is most notably used as a turf alternative. Both groundcovers host the buckeye, which is a medium sized butterfly with brown, orange, and cream wings with a distinctive eye spot pattern.



Gulf Fritillary larvae
Image credit: Tonya Ashworth UF/IFAS

To lure a variety of butterflies to your house, you should absolutely plant nectar plants such as pentas, guara, buddleia, salvia, and zinnia. But don't forget about the needs of their caterpillars. Add in host plants for maximum butterfly encounters in the garden.

Out on a Limb by Larry Figart (cont. from page 3)

part of the root system that bears most of the load in holding the tree up is the root flare. If you picture the tree as a wine glass, the root flare is the base of the wine glass. Many trees have had their root flares covered by soil during construction or landscape activities. Mulch volcanoes are formed when mulch is piled over the root flare and against the trunk of the tree. Both situations are bad for the tree because it buries the roots and promotes disease and makes inspection of the root flare difficult. Any damage to the root flare by construction, or other means, is a cause for alarm. Recall the wine glass analogy and imagine how unstable the wine glass would be if part of the base were gone. Finally, the last step in inspecting the roots is to step back away from the tree and look at the uppermost branches of the tree. If they are bare, or not as full as the rest of the tree crown, it may indicate root problems. A Certified Arborist should be called in to inspect the tree if any problems with the root system are suspected.



Root Flare Buried
Image credit: Larry Figart UF/IFAS

There is no way to fully eliminate the risk of a tree falling and causing damage in a storm. Nevertheless, homeowners can significantly reduce the risk with regular inspection of their landscape, by identifying defects in their trees and taking care of them before they become a problem. More information of trees and storms can be found on the University of Florida "Ask IFAS" website at https://edis.ifas.ufl.edu/entity/topic/trees_and_hurricanes.

**What to Plant
in July and August**

Annuals: Plants that can take summer heat include angelonia, celosia, coleus, crossandra, exacum, impatiens, nicotiana, ornamental pepper, portulaca, salvia, torenia, and vinca.

Bulbs: Aztec lily, butterfly lily, gladiolus, gloriosa lily, kaffir lily, moraea (African lily), Scarborough lily, sternbergia, spider lily and walking iris. In August, add to the list grape hyacinth, iris and leopard lily.

Vegetables: Eggplant, okra, peppers, and watermelons. In August, plant bush, lima and pole beans, corn, cucumbers, southern peas, peppers, pumpkin, summer and winter squash,

Herbs: Herbs that can be planted from plants (not seeds) include bay laurel, ginger, Mexican tarragon, and rosemary.

Upcoming Classes

Scan Code
for current list of
ALL Duval Extension Classes



Date, Time, Cost	Event & Registration	Location
July 27th 2-3:30 pm \$10.00	<u>July Backyard Hen Training</u> This informational course is on caring for backyard hens and is a prerequisite to receive a Backyard Hen Permit from Duval County.	Extension Office 1010 N McDuff Ave.
July/August Various times & locations Free	<u>Jacksonville public libraries "Life Lit"</u> Life Lit Programs Life are free workshops offered by trained professionals and volunteers that focus on improving your day to day life. These programs cover a wide range of workshops from gardening to small business needs. Go support our UF/IFAS Extension staff and volunteers!	July 17 - Aggressive or Invasive Plants (Webb Wesconnett Branch) July 24th - Elements of a Florida Friendly Yard (Argyle Branch) August 1st - Dirt Therapy (Maxville Branch) August 7th - Garden Mistakes (Willowbranch Branch) August 21st - Organic Gardening (Webb Wesconnett Branch) August 28th - Water Efficiently (Argyle Branch)

What's That? Answer!

Common beggarticks or spanish needle (*Bidens alba*) is a native Florida landscape weed. This species is indigenous to Central and South America and was introduced to North America. Their delicate, white flowers make them a favorite among pollinators and their leaves are used to brew tea in some cultures. Their flowers are also edible.

- **Seasonality:** All year but especially common during the warm, rainy season
- **Soil Type:** Wet to dry
- **Toxicity:** Non-Toxic
- **Most Commonly Found:** Native areas and landscapes.

<https://mrec.ifas.ufl.edu/research/weedsbyflowercolor/white/bidensalba/>



Image Credit: Shaun Winterton, California Dept. of Food and Agriculture Bugwood.org