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Extension Update by Larry Figart

“Tones sound, and roar and storm about me until I have set them down in notes” -Ludwig Von Beethoven

The summer of 2024 started out very dry. The rainfall in April, May and early June was 5.6”, which is only 65% of what is considered normal. However since mid June, the afternoon showers have been fairly consistent. Florida averages 54 inches of rainfall a year and 70% of the rainfall is during the summer months. It is possible that our plants will not need supplemental water until soils start to dry out in October.



A rain shut-off device (in photo) will only prevent your irrigation system from running during and just after a rain. If our soils are wet it is best to simply turn off the time clock on our irrigation until the soil dries out a little. Soils that are too wet will create problems for your plants. Saturated soils prevent roots from taking up water and nutrients and can cause plant diseases like root rot. Not to mention more weeds like dollarweed, sedges, and torpedo grass.

What's That (answers on page 8)

Butterfly Milkweed



John Ruter, University of Georgia,
Bugwood.org

Aquatic Milkweed



Rebekah D. Wallace, University of Georgia,
Bugwood.org

Pinewoods Milkweed



James R. Holland, Bugwood.org



Around the Yard by Tonya Ashworth

Water Hemlock-A Beautifully Dangerous Native Plant

I recently received a call from a homeowner with a weed growing in her backyard that she couldn't identify. Her neighbors had told her it was dangerous and she should burn it. She wanted to check in with Extension first. I had a guess after she told me it had white flower clusters and she lived on the river. I drove over to the Lakeshore area where her backyard was waterfront. I saw the pretty white flower clusters sticking out over the assorted grasses and forbes that made up her yard and was afraid she might have a stand of water hemlock (*Cicuta maculata*), but I was still not sure. Looking closer, I saw the stems had purple streaks and the leaves were alternately placed along the stem. I cut into a stem. It was hollow inside. That's when I knew it was water hemlock.

Water hemlock is one of the deadliest plants in the world. All parts of the plant are toxic and contain a chemical called cicutoxin. Within 30-60 minutes of ingestion, a person will experience nausea, vomiting, tremors, cramps, and convulsions. The most poisonous part of the plant is the root.

According to data from the CDC, from 1979 through 1988, at least 58 people died after ingesting a misidentified poisonous plant. There are a few plants that look a lot like water hemlock. One is Queen Ann's lace (*Daucus carota*). This plant is in the carrot family and grows as a wildflower though it is not native to the United States. All parts of the plant are edible, cooked or raw. Flower clusters can be fried and have a carrot-like flavor. The stems are hairy, and the flower clusters have a dark purple bloom in the center. Another look-alike is elderberry. People often collect the fruit for use in pies and jams. It also grows on lake and pond shores and has white flower clusters. However, the inside of the stem is pithy and the leaves are arranged opposite each other along the stem.

I contacted a weed scientist and a botanist at the University of Florida to help me advise the homeowner. The weed scientist told me that complete eradication of this plant was going to be near impossible and the strategy could be to simply leave it alone. The plant is not harmful unless a person or animal eats it. The botanist agreed and noted that water hemlock is native to Florida and was growing by the river in its natural habitat. It serves as a host plant for the black swallowtail butterfly and provides nectar for numerous pollinators. As I walked along the stand of hemlock, I couldn't help but notice lots of bee activity and I did see caterpillars on one of them. My client has a dog, and while there are numerous reports of people and livestock being poisoned by water hemlock, there have been no reported cases with dogs. I reassured my client that it was not like poison ivy and touching it could not hurt you. To try to keep it from spreading, spot-treatments of herbicides can be applied. Systemic herbicides such as glyphosate or 2,4-D works best when applied in late spring and early summer. Plants growing in wet or submerged areas need to be treated with an herbicide specifically labeled for use in aquatic areas, if treatment is even needed.

Our native water hemlock provides nectar for pollinators and food for butterfly caterpillars. It poses no risk to people or pets as long as it is not eaten. Florida has many other plants that are commonly grown on purpose in our landscape that are also very toxic. Sago palm, oleander, and angel trumpet are the three that come to mind. So, you can love and co-exist with a toxic plant when caution is taken.



Water hemlock recently observed on a site visit

Credit: T. Ashworth, UF/IFAS

Out on a Limb by Larry Figart

Trees and Storms; Lessons Learned

The National Oceanic and Atmospheric Administration said in its 2024 hurricane season forecast issued in May that it expects an 85% chance of “above-normal” activity this hurricane season. Since the time to prepare for hurricanes is before they strike, perhaps now is a good time to look at some of the lessons learned from previous hurricanes in regard to urban trees. This list is compiled by researchers from the University of Florida that went into storm damaged areas and surveyed the damage to the urban tree canopy.

- **Many trees have had their root flares covered by soil during construction or landscape activities.**

Any damage to the root flare by construction, or other means, is a cause for alarm.

Often trees will give clues that there are problems with their roots. Routinely inspect your trees by stepping back away from the tree and look at the uppermost branches of the tree. A tree with root problems has thinner off-color foliage, bare spots or areas that are or not as full as the rest of the tree crown. An ISA Certified Arborist should be called in to inspect the tree if any problems with the root system are suspected.

- **Saturated soils** occur when slow moving storms produce a lot of rainfall for longer periods of time. Wet soils are less able to hold onto roots and the roots can slip through when heavy winds rock trees back and forth.

- **Trees growing in groups blew down less frequently** and had less damage than trees growing alone. The trees growing in groups shared the wind load among themselves whereas the trees growing alone bore the brunt of the wind. This was also true in residential communities that had variety of species, ages and layers of trees that could share the wind burden. Single trees growing by themselves were more likely to be damaged.



This tree did not have enough rooting space for its size.

Image Credit L. Figart UF/IFAS

- **Trees that were properly pruned** had less damage than trees that were unpruned, or improperly pruned. Pruning young trees to form a single leader, eliminating co-dominant stems, leaving interior branches, and utilizing reduction cuts are all objectives of proper pruning. Over thinning, removing interior branches, topping, lions-tailing, and over lifting tree canopies are all examples of improper pruning. Utilizing an ISA Certified Arborist to prune your trees is the best way to assure that your trees are pruned properly. You can find an ISA Certified Arborist by going to: <https://www.treesaregood.org/findanarborist/arboristsearch>.
- **Trees with confined root systems** were more likely to uproot in storms than trees with unconfined root systems. If a tree is growing in an area where its root system cannot adequately spread out and anchor the tree properly, it may lose its ability to hold itself upright in storm force winds. In our urban landscape sidewalks, driveways, underground utilities and streets all tend to limit the amount of rooting space that

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Growing in the Vegetable Garden by Beth Marlowe

Plan Now for Fall Vegetable Gardening

Wowie—is it ever hot! What’s a vegetable gardener to do in the dog days of summer? If you’re a regular reader of *A New Leaf*, you’ve probably seen our advice on solarizing beds, planting cover crops or growing only those crops that can really take the heat. Brush up on tips by visiting our website! ([See past July-August issues here.](#)) Then, while your garden (mostly) takes care of itself, you can sit in your easy chair and plan for fall gardening. It’s a great way to be more effective and efficient--no sweat required!

Here are some simple steps you can take to be ready for fall planting:

Assess your site and garden. If you’ll be growing in the same place next season, really look at it and see if it is still receiving 6-8 hours of sunlight per day. As tree limbs grow, what was once a full-sun space can become too shaded for many crops, especially in the fall and winter when the angle of the sun is lower. If you need to trim branches or even move beds, make plans for that now.

If you’re just getting started, make sure you have full sun. Call 811 and have all utilities marked, and then measure and draw out a plan for where beds and other features of your garden will be. Make sure your garden is as close as possible to your water source. Water weighs 8.3 pounds per gallon, so hand-carrying watering cans doesn’t usually last very long. Even hoses can be heavy to lug if they are long.

Sample, amend and/or till your soil. Even if you’ve done it before, take 5 minutes before the heat of the day to collect representative samples of all your beds or growing areas ([see instructions here](#)), and submit it to our office for free pH testing. The pH of the soil is important because it affects how available many soil nutrients are to your plants. A report of your results will guide you on how much lime (if any) and fertilizers your garden will need to support the crops you intend to grow. If you do need to amend your soil, you can research options and purchase prior to planting time. If you are growing in the ground, decide if you need to till and schedule it. Tilling can turn under cover crops and soil amendments and help manage nematodes, but it also disrupts the soil ecosystem. Try not to till too frequently.

Refurbish or build raised beds. If you grow in raised beds, assess their condition. Sometimes boards begin to separate at corners and new screws can firm them up. If individual boards are rotted, they can sometimes be replaced. If the bed needs to be rebuilt, you can purchase supplies and cut lumber or other materials now so you’re ready to replace as soon as there’s a good day for it. Sometimes you can even rebuild a bed right around the existing soil.

Repair or replace irrigation components. We recommend drip irrigation for vegetable gardens. It works well, but drip tape and soaker hoses eventually spring leaks; connections come apart; and fittings become clogged. Test out components and clean them if necessary. Discard parts that are beyond repair, and purchase new ones as needed. Decide what types of drip irrigation you’ll need for your fall planting plan and where they’ll go.



Maintaining raised beds
Image Credit: B. Marlowe UF/IFAS

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Sharpen, clean and repair tools. Having tools clean, sharp and ready to go when you need them in the fall will

Growing in the Vegetable Garden by Beth Marlowe

Ground Cherries: An Easy-to-Grow Sweet Treat

Each season we like to try a couple new crops or varieties in our demonstration garden, just to learn about them and see if we like the fruits they produce. This spring we grew ground cherries for the first time, and they have been a success.

Ground cherries, like tomatillos, are in the plant genus *Physalis*, but they are different species. Both are a little more distantly related to tomatoes. Also, like tomatillos, ground cherries are enclosed in a small papery husk that hangs below the stems of the plant. There are several species of ground cherries, and they are typically grown at the same time as tomatoes. For us, that's spring. Unlike tomatoes and tomatillos, ground



Like tomatillos, ground cherries are enclosed in a small papery husk
Image by B. Marlowe, UF/IFAS

cherry plants tend to sprawl out more, like a 1-2 ft tall ground cover, rather than growing upright. The plants were easy to grow, and even though they were plagued early in the season by spider mites, they thrived throughout spring, even handling the high heat of late June. The plants were very productive and would have kept going indefinitely. They are typically grown as annuals here in north Florida.

The ground cherries themselves are yellow when ripe and are about the size of large blueberries. They are typically ripe when they start falling to the ground in their yellowing and drying husks. They are tasty and much sweeter than tomatoes and tomatillos. They can be eaten fresh as is, after taking them out of their husks where they can be used to make sauces and salsas. Additionally, they can even be used in pies and jams.

Our Master Gardener Volunteers taste-tested a ground cherry salsa during a recent workday, and most enjoyed it. Testers found it sweet and flavorful with a unique taste. If you'd like to grow your own, you can find seeds at several online [seed sellers](#) and start some in August for a fall crop.

Once you harvest, the hardest part of making the salsa is husking all those small fruits! It's a good task for a grandchild or sitting in front of the TV! Because they're small, it's easier to process them in a blender with some or all the following, to taste: onions, bell peppers, hot peppers, lime juice, cilantro, salt and pepper. Process to your desired texture. Adding black beans would help balance the sweetness of the ground cherries. Serve chilled or at room temperature with your favorite chips or crackers.



Ground Cherry plants spreads out rather than grow upright
Image by B. Marlowe, UF/IFAS

Bottom line: this is an easy crop to grow, and it could fill a relatively large space with 5-6 plants. Little care is required, beyond adequate water and fertilization. Leaf-footed bugs and stinkbugs seemed to leave it alone; perhaps they were unable to reach the fruits because of the husks. Plants were productive even with some insect pressure. Fruits are easy to pick and tasty to eat. The only downsides are picking and husking. They are somewhat slow processes.

Friendly Landscapes by Stephanie Means

Milkweed is for more than Monarchs

Milkweed: We all know it as the poster plant for pollinator gardens, but did you know it feeds many other insects beyond the beloved monarch butterfly? The Sunshine State is home to over 20 species of native milkweed in the *Asclepias* genus, and a few are endemic, meaning they are ONLY found in this state and nowhere else in the world. How incredible is that!?! The monarch gets all the press, but queen and soldier butterflies also use these native milkweeds as larval host plants for their caterpillars. Many other butterflies (pipevine, spicebush and eastern swallowtail) and bees, (native sweat bees, leafcutter bees and yellow-faced bees) rely on these starry little flowers for pollen and nectar.

In the last several months there has been a bit of debate surrounding milkweed and whether we should be including it in our pollinator gardens at all! In a recent webinar entitled “Milkweed, Monarchs, and OE in Florida: It’s Complicated” given by Dr. Jaret Daniels, from the McGuire Center for Lepidoptera and Biodiversity, Dr. Daniels gives the latest science-based information and explains the impact of OE disease on the monarch populations. Plus, he offers advice on what to do with milkweed in the Florida landscape. A recording of the presentation can be found [here](#).

There is a notable decline in monarch populations over the last 20-30 years which has been the driver of much scientific research, but it is a very complex topic and there are still a lot of data gaps.

OE (*Ophryocystis elektroscirrha*) is a protozoan parasite that begins its life cycle as inactive spores on plants waiting to be eaten by a larva. Once consumed, it multiplies within the larva and produces new spores on the butterfly’s scales when it emerges. When the levels of OE multiply and get too high, it impacts the fitness and survivability of the butterfly.

Warming temperatures, loss of habitat, and the prevalence of non-native tropical milkweed, *Asclepias curassavica*, contribute to heavier OE loads, increase in OE infection, OE transmission and local population loss.

What we can do to help monarchs?

Plant only native milkweeds. *A. tuberosa*, *A. incarnata* and *A. perennis* are three of the most commonly cultivated natives. If you have tropical milkweed north of Lake Okeechobee cut it back to the ground, forcing dormancy for the months of October-February, or consider replacing it with native species. Additionally, to keep it from spreading into wild areas out of your control, remove and dispose of seed pods before they ripen and disperse.

Avoid pesticide treated plants. It is not good for the insects that feed on them.

Enjoy butterflies in the wild. Don’t rear monarchs indoors. There is no significant evidence that rearing monarchs benefits their conservation and it can have negative impacts on disease transmittal, inbreeding, ability of monarchs to orient south for migration as well as physical fitness and overall health of the butterflies.

Be aware that milkweeds get their common name from the milky sap they exude. This sap can irritate skin and is toxic if consumed in large quantities. Keep pets and small children away.

Overall, much is still unknown about the decline of monarch butterflies and the influence of human actions on their population. As more information becomes available, recommendations may be subject to change. For now, plant and enjoy native milkweeds in your yard. The various insects that rely on these plants will be grateful! For more information on Florida milkweeds, please refer to:

<https://gardeningolutions.ifas.ufl.edu/.../milkweed.html>. For a full list of plants that are attractive to a number of butterfly species, utilize the free Florida-Friendly Landscaping Butterfly Gardens app: <https://ffl.ifas.ufl.edu/resources/apps/butterfly-gardens/>



Tiny sweat bee visiting FL native Sandhill Milkweed, *Asclepias humistrata*, by Stephanie Means UF/IFAS

Growing in the Vegetable Garden continued from pg. 4

make your gardening much easier and more fun. Cleaning to remove dirt and organic matter is the first step. Simply spray down or wipe with a damp cloth. Disinfecting should be done afterwards and will help prevent the spread of plant pathogens. If it's been a long time since your cutting and chopping tools were sharpened, do that too. [More information on basic garden tool care can be found here.](#) If you need to purchase tools, do so now. Yard sales are a good place to find gently used tools. Be especially careful to disinfect these used tools to avoid bringing in a plant disease.

Develop a planting plan. Decide what you're going to plant. How do you know if you're new to vegetable gardening in Florida? Check out our [vegetable gardening guide!](#) In it you will find a wealth of information about when and how to plant many vegetable crops, as well we recommended varieties. Use the guide to help you plan spacing so you know how many of each crop you can plant in the space you have. Do your best to rotate your crops by plant family from season to season. This can help minimize buildup of plant pathogens associated with specific families.

Purchase or pre-order seeds and supplies. If you will be starting your own seeds, go through your stash of saved seeds and [determine if they are still viable.](#) Then decide which seeds you still need to buy. There are [many reputable stores and online retailers who sell quality seeds.](#) If you are shopping when many others are not, you may be able to find good sales! You can also plan a seed swap with friends for a fun and low-cost way to try new crops or varieties. Be sure you have all the clean trays, germination mix, and other supplies you need as well.

Take a class! If you want to learn more about gardening, try one of our upcoming classes. They cover a wide range of gardening topics and are very low cost. Some are held in person at the Extension Office, and some are online. [Follow us on Eventbrite](#) for the most up-to-date listing of new classes. Consider these:

- Fall Gardening Starts with Seeds, online, Saturday, July 13
- Intro to Fall Vegetable Gardening, online, Wednesday, Aug. 21
- Fall Vegetable Seed Starting Workshop, in person, Saturday, Aug. 24

By the time fall arrives, you'll be more than ready to get out and plant!

Out on a Limb continued from page 3

allow trees to anchor themselves. The larger the tree, the more room it needs. Assuming a soil depth of at least 3 feet, a small maturing tree needs at least 100 square feet of rooting space; a medium-size maturing tree requires at least 400 square feet; and a large maturing tree needs at least 900 square feet of rooting space to provide a minimum amount of anchoring.

- Over-pruning palms can increase the likelihood of them being damaged in a storm. Often, we hear the term "hurricane cut" when pruning palms. This is a myth. Improperly pruned palms are damaged more frequently in storms than palms that have never been pruned at all. When pruning palms, the best method is to only remove dead fronds. If more pruning is desired, never prune higher than 9 o'clock, or 3 o'clock. In other words, only remove the fronds pointing downward.

There is no way to completely eliminate the risk of a tree falling and causing damage in a storm. By looking into some of the lessons learned from previous storms, we can learn how to recognize and prevent tree problems before the storm. 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

Flowers: Traditional plant selections are limited due to heat and humidity. Annuals for July include Angelonia, celosia, coleus, kalanchoe, ornamental pepper, portulaca, salvia, and vinca (periwinkle). In August, replace declining annuals with Vinca, Gaillardia, Bulbine, Coleus.

Bulbs: Butterfly lily, gladiolus, society garlic.

Vegetables: Gingers, peppers, roselle, tomatillo, tomatoes, tropical spinach, seminole pumpkin, luffa, calabaza, chayote, southern peas

Herbs: heat-loving herbs, including basil, oregano, sage, Mexican tarragon, and rosemary.

Upcoming Classes

Scan Code
for current list of
ALL Duval Extension Classes



Date, Time, Cost	Event & Registration	Location
July 13th 10:00 \$5.00	<u>Fall Vegetable Gardening Starts with Seeds</u> Learn about choosing, acquiring, storing and saving seeds for your fall vegetable garden and beyond!	Online Webinar
July 30th 2:00-3:30pm \$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
August 21st 12:00-1:00 pm \$5.00	<u>Introduction to Fall Vegetable Gardening</u> New to vegetable gardening? Learn what you can grow in a fall vegetable garden in northeast Florida and how to get started!	Online Webinar
August 24th 10:00am-12:00pm \$15.00	<u>Fall Vegetable Seed Starting Workshop</u> This hands-on workshop is appropriate for gardeners of all skill levels. It will cover the basics of starting seeds to grow your own transplants, as well as direct seeding.	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.	July 15– Low Maintenance Gardening (Webb Wesconnett Branch) July 16th - Compost, Recycling and Mulch (Univ. Park Branch)

What's That? Answer!

This edition of "What's That" is a little different. The three images on the front page are three milkweeds that are native to Florida. Planting native milkweeds are better for monarchs than tropical milkweed. Native milkweeds die off in the winter. The problem is that tropical milkweed does not die out in winter contributing to monarchs that breed in the winter. Winter breeding monarchs have nine times more of the OE parasite than non-winter breeding monarchs. The prevalence of non-native tropical milkweed, *Asclepias curassavica*, contributes to the higher amounts OE loads in winter breeding monarchs, increase in OE infections, OE transmission and local monarch population losses. One of the more impactful things you can do to help monarchs is to reduce or eliminate tropical milkweed and grow more native milkweed.



Tropical milkweed
Tina McIntyre, UF/IFAS