



## Extension Update by Larry Figart

*"A new year is simply the turn of a calendar page — and a beautiful chance for us to turn over a new leaf." -Terri Guillemets, Anthologist*

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### A Day of Gardening!

**Saturday, February 25, 2023**

**9:30 am - 2:30 pm**

**Duval County Extension Office**

**Cost \$20.00**

**Registration deadline: February 15th**

Register at: <https://www.eventbrite.com/e/a-day-of-gardening-tickets-520801400007>

We will have speakers presenting on the following gardening topics:

- Companion Planting Veggies
- Dirt Therapy - Getting your Hands Dirty
- Growing Bananas and Sugarcane in N. Florida
- Tired of Turf? (Turf Alternatives)
- Pruning Young Trees for Structure
- Using Non-Native Plants along with Natives to Attract More Butterfly Species
- Pump Up the Color in Your Landscape
- Vegetable Garden Legends: Myth, Miracle or Something in Between

## What's That?

Note the reddish/bronze fronds



Image Credit: Larry Figart, UF/IFAS

Late stage symptoms



Image Credit: Larry Figart, UF/IFAS

Early symptoms on a Sylvester palm



Image Credit: Larry Figart, UF/IFAS



# Around the Yard by Tonya Ashworth

## Terrariums for Fun 'til Spring

Right now, my plants outside look a bit sad. But, like many gardeners, I can't go for too long without getting some dirt under my fingernails. So, to pass the time as we wait for spring, we turn our attention indoors.

Terrariums are a good way to get creative with interior plants and make a cool centerpiece for your coffee table. They were accidentally invented by London surgeon Nathaniel Ward in 1830. Dr. Ward was originally interested in entomology as a hobby. So, when he found a hawk moth pupa, he brought it home and put it in a sealed glass bottle along with some damp soil to watch it transform. After 6 months had passed, a fern had started to grow in the bottle and the first terrarium was born. This might not seem like a big deal to us now, but it was a major advancement in horticulture at the time. Dr. Ward wrote a paper on his discovery, and miniature greenhouses called Wardian Cases were built and used in the nursery trade. These forerunners to the humble terrarium allowed plants collected from the wild in places like Australia to survive an eight month or so journey at sea and arrive safely in London. This was such a big deal that Dr. Ward's original bottle was displayed in 1851 at the World's Fair.



Open Air terrarium  
Tonya Ashworth, UF/IFAS

Now you can create your own relic of the Victorian era. Just about any container will work, so long as it is clear. Try canisters, candy jars, or anything with a lid for a traditional terrarium. A simple goldfish bowl or other glass container can be used for an open-air terrarium.

Since there are no drainage holes, getting the soil and water right is important. For open or enclosed terrariums, creating a layer for drainage can help keep plants from rotting. The first layer should be fine gravel. Fish aquarium gravel works great. I prefer the natural-colored, but you can use hot pink if you are feeling fun. The next layer should be about ½" deep horticultural charcoal. This can be found online or at your local garden center. Before you add growing medium, layer in some sort of barrier to keep the charcoal and gravel from getting all mixed in with the soil. I like to use a layer of sheet moss or sphagnum moss. I have read that a small piece of landscape fabric or a thin screen material will also do. After your drainage layers are in, add moist potting soil. You want the soil to be damp enough so that when you squeeze it, it kind of sticks together but water doesn't pour out.

The next step is to plant it up. Choose at least 3 plants of varying growth habits, colors, or textures to make it visually appealing. Buy smaller plants, in 2" or 3" size pots. The most important thing about plant selection is that all the plants need to have similar moisture requirements. Don't mix tropicals with cacti, for instance. Also, choose plants that have a dwarf growth habit, so they don't outgrow the container too quickly. In the long-term, you can prune the plants to keep them in bounds if necessary. Make sure the root balls of the plants are moist before you put them in, and mist with water to get the soil off the leaves after planting. Finally, I like to add some interest to the composition by placing a cool-looking rock or a bit of reindeer moss or perhaps a small cone or twig to the soil surface. If you are making this into a project for a child, pair that hot pink fish gravel with a tiny unicorn toy or maybe use neon yellow gravel and a small dino.

For an enclosed terrarium, mist the inside with water and then seal it up. Keep in mind that it can take up to 6 months for the rain cycle to really get going. If you have too much condensation forming inside the container, just take the lid off for a while and let it evaporate.

With the open-air terrariums, getting your watering right is key. Use your finger to check how moist the soil is and only water as needed. Water a little at a time. You don't want the soil to become saturated and not be able to drain. Don't fertilize the first year, as you want the plants to grow slowly. If you do eventually fertilize, use a houseplant fertilizer at half the recommended rate on the bottle.

If you have never put together a terrarium before, you should give it a try. While you are at it, might as well make two so you can give one as a gift or take the other to your office. For more info about growing plants indoors, go to our Ask IFAS website <https://edis.ifas.ufl.edu/>.

# Out on a Limb by Larry Figart

## Treating Cold Damaged Citrus

The freeze over the Christmas holiday was certainly a deep one. In an instant our landscapes and turf went from green to various shades of brown. While there are a lot of articles and blogs telling us not to prune out our dead plants, there is not a lot out there telling us what to do with our citrus. With citrus, patience is required. However, by following the guidance from the University of Florida we can take the necessary steps to help our trees recover.

The ability citrus trees to recover from cold damage is directly proportional to the health and vigor of the tree. Trees with insect damage, disease, or nutrient deficiencies are more likely to have more severe cold damage. With citrus greening running rampant throughout northeast Florida, the potential for severe damage increases.



Citrus damaged by the cold.  
Photo credit: B. Fullford

Symptoms of cold damage to citrus come in many different forms. The greater the cold damage, the more severe the symptom. For instance, citrus leaves lightly damaged by cold may simply droop but remain green. While leaves with heavy cold damage are brown and brittle. Branches with heavy cold damage may die entirely or develop splits with damage to the cambium while some branches may have very little apparent damage at all.

Fruit drop may occur in heavily damaged fruit. Often this fruit is inedible as ice has formed inside the fruit and created extensive internal injury. Fruit that remains on the tree may show signs of freeze/ice

damage by the appearance of water-soaked areas inside the segments. You may want to sample the fruit still on the tree starting from the outside of the tree and working your way to the inside of the tree to determine the amount of fruit damage.

While there may be a desire to do something right away to help your tree recover, the reality is we can't do anything until the tree lets us know what damage it sustained and that may be a few months from now.

**Fertilization:** The proper amount and timing to follow when fertilizing citrus is to give it small amounts throughout the growing season. Typically, this starts mid to late March. If your tree received cold damage, don't change this timing, just reduce the amount. Roots and branches may have been damaged so your tree does not need to sustain as big of a tree as you had last year. For example, if 1/3 of your tree shows damage, reduce the amount of fertilizer by 1/3.

**Irrigation:** If the soil is moist, the tree does not have to be watered. However, our dry season in March, April, and May will require supplemental irrigation of our citrus trees. If your tree starts to put on new growth, you may need to supply supplemental irrigation especially in the event of a dry spell.

**Pruning:** Branch damage from the freeze may not be totally apparent until late spring or even early summer. Try and hold off pruning off the dead wood until then. As the tree forms new growth, you can then determine how far down the branch you will need to cut. Make the cut into green wood and if possible, remove the damaged branches at the branch collar. Any sprouting below the graft should be pruned off right away. This is the rootstock sprouting and any fruit produced by the rootstock will more than likely be poor quality.

A hard freeze is by far the most damaging event to occur in the life of our home grown citrus. With a little patience and a "wait and see" outlook, we may be able to care for our trees and bring them back to full recovery in a year or maybe two in the event of severe damage.



# Growing in the Garden

written and photo credits by Beth Marlowe

## Great Christmas Freeze of 2022

Our biggest challenge in the Urban Demonstration Garden this New Year is managing the fallout from the freeze of 2022! It was the longest duration and nightly repetition of hard freezes in my vegetable gardening experience here. We typically plant cold hardy crops in winter, and we moved or covered vulnerable plantings ahead of time and thought we were prepared. For the first week after the freeze, our crops looked good, all things considered. It was only after 2-3 weeks that the extent of the damage became apparent. So, if you thought you made it through the freeze only to be surprised by extensive damage weeks later...you're not alone!

One factor that made our freeze recovery harder was several nights of warm temperatures with heavy dew right after the freeze. Freeze-damaged leaves, petioles and split main stems remained wet well into the morning, and this led to some secondary fungal and bacterial problems. We trimmed off affected leaves to keep from spreading disease and pulled up plants whose stems began rotting. In some cases, even kale and Brussel sprouts succumbed, which surprised us.



Split stem on broccoli



Freeze damaged/diseases broccoli leaves



Freeze damaged stem

Some crops like radishes, collards, kale and lettuce made it through the freeze and wet conditions mostly unscathed. They only required minimal trimming of dying and rotting leaves. We have continued harvesting greens that have bounced back and whose leaves are healthy. We just don't have as many as previous years.

In contrast to our annual vegetables, we have left the dead leaves and stems on several of our perennial crops, such as a generally hardy basil, hibiscus, galangal, sage and passionvine. It doesn't look pretty, but those dead tissues will help insulate the still living portions underneath or in the ground if we have another freeze before spring.

And in case you're wondering which crops sailed through the freeze with no problems at all...carrots, cabbage, onions, garlic, leeks, turnips, endive, mibuna, cilantro, strawberries and English peas haven't skipped a beat despite being left uncovered. So, for an easy-care winter garden focus on those crops. And plant broccoli, chard, fennel, kale and collards closer to the house or where they can easily be covered. You can also buy a few extra transplants at the garden center or seeds of a quick crop like radishes to fill in the holes for the rest of the cool season.

Why radishes? They are easy to direct seed; they sprout and grow to harvestable size quickly with few problems in only 3-4 weeks; and they're delicious far beyond the crudité platter! Don't believe it? Try simmering 1-2 pounds of cleaned radishes (cut in half) in about a cup of water with several tablespoons of butter until they are tender and most of the water is evaporated. Season with salt and pepper, and garnish with fresh dill or parsley (recipe by David Tanis, courtesy New York Times Cooking). You can mix the green tops in with other greens like turnips and mustards and cook as you normally do. Both the roots and tops are beautiful, delicious and healthy. What's not to love?



# Growing in the Garden ...continued from pg 4

Even though we're still managing and harvesting the cool crops outside, January and early February is the time to start seeds indoors for those warm season crops that need a head start. Peppers and eggplants can take 2-3 weeks to germinate, so we start those first. One key to success is keeping the soil in the seeding flats warm - keeping the soil temperatures between 75°F-95°F. You can achieve this by using a heating mat, but be careful that it doesn't get the soil too hot or dry out the cells. A meat thermometer is a good way to check and see if you are in the right range. You can also keep the tray under warm lights, on top of a refrigerator, or another warm but not drafty spot. Once the peppers and eggplants are beginning to sprout, we move on to tomatoes. They like the same warm temperatures but generally sprout in about a week, so they don't take as long to get to the transplant stage. Last average frost dates in Duval County range from mid-February to mid-March, so don't set warm season transplants outside in the garden too early. March 15 is a safe date for everyone.



Basil and Galangal left alone until spring to protect still-living tissues  
Image Credits: Beth Marlowe, UF/IFAS

## EDIBLES TO PLANT IN January

North	Central	South
<b>EASY TO TRANSPLANT</b> Arugula, Beets, Broccoli, Brussels Sprouts, Cabbage, Cauliflower, Chinese Cabbage, Collards, Endive, Kale, Kohlrabi, Lettuce, Sugar cane, Swiss Chard	Arugula, Beets, Broccoli, Brussels Sprouts, Cabbage, Cauliflower, Chinese Cabbage, Collards, Eggplant, Endive, Kale, Kohlrabi, Lettuce, Peppers, Sugar cane, Swiss Chard, Tomatillo, Tomatoes, Tropical Spinaches	Arugula, Beets, Broccoli, Brussels Sprouts, Cabbage, Cauliflower, Chinese Cabbage, Collards, Eggplant, Endive, Kale, Kohlrabi, Lettuce, Peppers, Sugar cane, Swiss Chard, Tomatillo, Tomatoes, Tropical Spinaches
<b>TRANSPLANT WITH CARE</b> Celery, Mustard, Potatoes, Spinach	Celery, Mustard, Pineapple, Potatoes, Spinach	Amaranth, Calabaza, Celery, Long Squashes, Luffa, Mustard, Pineapple, Potatoes, Seminole Pumpkin, Spinach, Sweet Potatoes
<b>USE SEEDS</b> Carrots, Onions (bunching), Peas (English), Radish, Turnips	Cantaloupe, Carrots, Corn, Cucumbers, Onions (bunching), Peas (English), Radish, Squashes, Turnips, Watermelon	Beans (bush, pole, lima), Cantaloupe, Carrots, Corn, Cucumbers, Okra, Onions (bunching), Peas (English), Radish, Squashes, Turnips, Watermelon

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## EDIBLES TO PLANT IN February

North	Central	South
<b>EASY TO TRANSPLANT</b> Arugula, Beets, Broccoli, Brussels Sprouts, Cabbage, Cauliflower, Chinese Cabbage, Collards, Eggplant, Endive, Kale, Kohlrabi, Lettuce, Peppers, Swiss Chard, Tomatillo, Tomatoes	Arugula, Beets, Broccoli, Brussels Sprouts, Cabbage, Cauliflower, Chinese Cabbage, Collards, Eggplant, Endive, Kale, Kohlrabi, Lettuce, Peppers, Sugar cane, Swiss Chard, Tomatillo, Tomatoes	Arugula, Chinese Cabbage, Eggplant, Endive, Ginger, Kohlrabi, Lettuce, Peppers, Sugar cane, Swiss Chard, Tomatillo, Tomatoes, Tropical Spinaches
<b>TRANSPLANT WITH CARE</b> Celery, Mustard, Potatoes, Spinach	Boniato, Celery, Mustard, Pineapple, Potatoes, Spinach, Sweet Potatoes	Amaranth, Calabaza, Celery, Long Squashes, Luffa, Papaya, Pineapple, Seminole Pumpkin, Spinach, Sweet Potatoes
<b>USE SEEDS</b> Cantaloupe, Carrots, Corn, Cucumbers, Onions (bunching), Peas (English), Radish, Squashes, Turnips, Watermelon	Beans (bush, pole, lima), Cantaloupe, Carrots, Corn, Cucumbers, Okra, Onion (bunching), Peas (English, Southern), Radish, Squashes, Turnips, Watermelon	Beans (bush, pole, lima), Cantaloupe, Carrots, Corn, Chayote, Cucumbers, Okra, Onions (bunching), Peas (English, Southern), Radish, Squashes, Watermelon

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## What to Plant in January and February

Annuals: Dianthus, pansy, petunia, viola and snapdragon.

Bulbs: Agapanthus, crinum, dahlia and gloriosa lily. These plants produce foliage in the winter to flower in late summer.

Vegetables: Beets, Broccoli, carrot, cabbage, collards, onions, potatoes, arugula, lettuce and spinach.

Herbs: Cilantro, dill, fennel, parsley, sage and thyme.

Now is a great time to plant most hardy perennials, par-



UF/IFAS Photo: Thomas Wright

## Upcoming Classes

Scan Code  
for current list of  
ALL Duval Extension Classes



Date, Time, Cost	Event & Registration	Location
<b>February 9th</b> 10-12pm \$5.00	<b><u>Efficient Watering for Vegetable Gardens: Micro, Low-Flow, Low-Tech &amp; more</u></b> This class will cover multiple methods of efficient and low-flow irrigation methods for vegetable and edible gardens.	Demonstration Garden 1032 Superior Street
<b>February 15th</b> 2-3:30 pm \$5.00	<b><u>Backyard Hen Training</u></b> 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.
<b>February 25th</b> 9:30 am-2:30 pm \$20.00	<b><u>A Day of Gardening</u></b> Please join us for A Day of Gardening! We encourage gardeners, landscapers, growers, conservationists, and all other outdoor enthusiasts to register! We believe that you'll enjoy the programs we've scheduled to help expand your knowledge.	Extension Office 1010 N McDuff Ave.
<b>February</b> Various times & locations Free	<b><u>Jacksonville public libraries "Life Lit"</u></b> 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!	<b>Feb. 6th - "Native Plants"</b>  <b>Feb. 7th - "Spring Gardening Tips"</b>  <b>Feb. 13th - "Butterflies with Native Plants"</b>  <b>Feb. 14th - "Weeds in the Landscape"</b>
<b><u>Library branches</u></b> Willowbranch Maxville Beaches Highland Regional		

## What's That? Answer!

The images are examples of the damage from a palm disease called lethal bronzing. Lethal bronzing is caused by a type of bacteria called a phytoplasma. It is spread from tree to tree by a planthopper called a palm cixiid. The insect ingests the sap from infected trees and spreads the disease as it feeds on uninfected trees. Lethal bronzing is becoming more prevalent in NE Florida as the palm cixiid becomes more common.

Lethal bronzing has been found to infect 21 species of palms and is found in 36 Florida counties including Duval. This list is expected to grow as the disease spreads into areas with lots of palm diversity. For more information, go to: <https://edis.ifas.ufl.edu/publication/PP163>



Sampling for lethal bronzing.  
Photo Credit: Larry Figart, UF/IFAS