



Know, Sow, Grow Flagler County

UF/IFAS Extension Flagler County

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Growing Healthy Palms

Mimi Vreeland, Flagler County Horticulture Extension Agent



Obtaining That Tropical Look

There is no better tree to give your garden a tropical look than the palm tree. With proper planting and care, many palms can live for decades. On average, a healthy established palm can live anywhere from 70-100 years. Some of the palms that line the streets of our state's historic areas such as downtown Sarasota and St. Augustine are over 100 years old and just now showing signs of decline.

Tall growing palms that seem to do best in Central Florida's Zone 9a, are our native Sabal Palm (Sabal palmetto), Pindo Palm (*Butia capitata*), Chinese Fan Palm (*Livistonia chinensis*), Mexican Fan Palm (*Washingtonia robusta*), varieties of the large date palm (*Phoenix sp.*), and even Bismarck Palm (*Bismarckia nobilis*) which historically preferred the slightly warmer 9b Zone in our state. But since our state has experienced a warming trend over the last decade, the Bismarck Palm has gradually made its way north and is currently available at some of our local garden centers.

Smaller palms that do well in Zone 9a are our native Saw palmetto (*Serenoa repens*), a Silver-gray variety of the Saw palmetto called Silver Saw, Windmill Fan Palm (*Trachycarpus fortunei*), European Fan Palm (*Chamareops humilis*) and a number of shade-loving varieties including Hardy Bamboo Palm (*Chamaedorea microspa-*

dix), Slender Lady Palm (*Rhapis humilis*), and Finger Palm (*Rhapis multifidi*).

Proper Palm Planting

Select a location for your palm that has good drainage. Once established, palms are quite drought tolerant, and prefer a sandy or sandy-loam soil. There is no faster way to kill a palm tree than to plant it in an area with a high water table or a heavy soil with poor drainage. When digging a hole to prepare for planting your palm, make sure that the depth of the hole is equal to the height of the root ball so that the crown of the palm tree is level with the soil surface once planted. The diameter of the hole should be twice the diameter of the root ball. No soil amendment is recommended for the back-fill.

Watering

Because the root ball of a planted palm should never be dry before one year of establishment, it's important to water the palm tree evenly around the root ball and make sure that enough water is making its way to the bottom of the root ball. The amount of watering needed will vary depending on the weather and time of year planted, so make sure to check the soil moisture around the palm several times a week, and daily during the hottest days of the palm's first year of establishment. Most palms don't require supplemental irrigation after the first year of establishment, with the exception of severe drought conditions.

Fertilizing

Avoid fertilizing your palm with nitrogen until after the first year of establishment. Applying nitrogen too soon may stress the palm while it's adjusting to its new location and putting all of its energy into developing a healthy root system. A newly planted palm can, however, be fertilized with magnesium sulfate (Epsom salts) if the soil is nutrient deficient. A palm will show signs of nutrient deficiency if its fronds begin to look chlorotic or develop small yellow spots that

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uniformly cover the fronds. Other signs of nutrient deficiency are browning and curling of the frond edges, and/or yellowing of the frond's mid-rib. Once the palm is established, it can be fertilized during the growing season with a palm fertilizer that contains an appropriate balance of macro- and micro-nutrients.

Pruning

Proper palm pruning is essential for both newly planted and already established palms. Over-pruning a palm's fronds will reduce its ability to adequately photosynthesize, negatively impacting a palm's healthy growth. Palms develop just enough fronds to maintain health and vigor. Therefore, all of the green fronds and even partially brown fronds should remain untouched. Only the fronds that are completely brown or have fallen from the tree should be removed.

Diseases

Palms can be infected by a number of bacteria and fungi. The most notable are the bacteria causing Fusarium Wilt as well as two fungal diseases Ganoderma Butt Rot and Thielaviopsis Trunk Rot. The most notable sign of Fusarium Wilt is a "one-sided wilting" and necrosis of the palm fronds. The palms varieties most susceptible to this fatal disease are Canary Island Date Palms, Mexican Fan Palms, and Queen Palms. Ganoderma Butt Rot is most easily identified on palms because of the conk (basidiocarp), a small shelf-like structure that forms around the base of the palm tree. Thielaviopsis Trunk Rot, on the other hand, typically forms on the upper third of the palm trunk and is easily identified by one-sided rotting, characterized by stem "bleeding" and a fermented-fruit odor.

Lethal Bronzing Disease: The Newer Kid in Town

Unfortunately, certain palm species that have been popular specimens in residential gardens for decades, are now becoming increasingly susceptible to Lethal Bronzing Disease (formerly known as Texas Phoenix Palm Disease). The first evidence of Lethal Bronzing occurred along the west coast of Florida before 2010. By 2018, Lethal Bronzing had spread over at least 2/3 of the State. Lethal bronzing is caused by a phytoplasma (a type of bacterium) which is transmitted directly to the palms fronds by sucking insects that pierce the fronds. The first signs of disease show up about 4-5 months after infection. The host



Lethal Bronzing, Photo :UF/IFAS Schall

range of this disease is extensive, with a host range of over 16 different palm varieties. There is evidence that a healthy palm can be protected from Lethal Bronzing Disease by injecting the palm trunk with the antibiotic oxytetracycline. It's highly recommended that prior testing be completed by a certified arborist to ensure that the palm is disease-free prior to antibiotic injection.

Disease Management

There is no cure for any of the four palm diseases mentioned above, once a palm is infected. Removal of the diseased palm and complete eradication are the only means for preventing spread of these lethal diseases. Therefore, it is important to make sure that disease prevention measures are taken in advance of planting and establishment. Make sure not to plant susceptible palms in disease-infected areas, select palm varieties with a higher disease-resistance, plant carefully to prevent wounding of the trunk and fronds, and remove at the first signs of disease. Careful palm planting and establishment is always the best insurance for your tropical garden's future.

Creeping Beggarweed (*Desmodium incanum*)

Mary Ellen Setting, Master Gardener Volunteer

Have you ever looked down at your shoes and socks after taking a stroll across your lawn, an empty lot or on a hiking trail and see them covered in some sticky green dot like thing? Sometimes your dog or cat will have their paws, legs and bellies coated with them. After you get home you realize they have also spread to your carpet and pet beds. When you try to remove the offending objects, you find they are nearly impossible to dislodge.



Beggarweed, Photo Credit: M.E. Setting

water or on animals. Hitchhiker weeds like Creeping Beggarweed have sticky hairy seedpods that affix to anything that comes in contact with them.

Creeping Beggarweed is found throughout Florida and Texas. It is a broadleaf perennial weed with a large taproot and many branched runners. Leaves contain 3 leaflets that are elliptical, hairy and with a white blotch down the center. Flowers are pink to deep rose, bloom in summer and resemble the flower of a pea. The seeds are about 1/4" long, flat on one side and rounded on the other. This weed is commonly found in turfgrass, residential and commercial landscapes.

Creeping Beggarweed is difficult to control in turf. Pre-emergent herbicides are ineffective because of the plant's large taproot and the ability to propagate from vegetative parts. Post emergent herbicides are available but selection will depend on the type of grass present. Before applying any herbicide, always read the label to be sure both the type of turf and the target weed are listed. Glyphosate products will control Creeping Beggarweed in ornamental beds.

For more information, visit <http://blogs.ifas.ufl.edu/osceolaco/2019/09/26/creeping-beggarweed-in-the-landscape-desmodium-incanum/>, <https://edis.ifas.ufl.edu/ep141> and <https://edis.ifas.ufl.edu/ep575>.



Caring For Indoor Orchids

Joanne Mason, Master Gardener Volunteer

Orchids can be broadly categorized into three basic types depending on their growth characteristics: 1 - epiphytic orchids survive attached to trees producing a sequence of shoots from a base rootstock; 2 - climbing orchids also attach to trees, but have much larger stems and are less compact; 3 - terrestrial orchids grow with their roots in the ground.



Cattleyas, Photo Credit: J. Mason

You can actually grow orchids in your home without living in the tropics or having the luxury of a greenhouse. There are important elements in growing orchids inside your home by providing the following: 1 - LIGHT - place the orchid in an east, west, or lightly shaded south window in fact, insufficient light is one of the most common reasons for a failure to bloom; 2 - TEMPERATURE - orchids are most



Dendrobium, Photo Credit: J. Mason

comfortable with room temperatures between 55 to 75 degrees; guard against excessively low or high temperatures; 3 - HUMIDITY - grouping orchids together provide collective transpiration or placing them on gravel filled trays assist in providing the needed humidity; 4 - WATERING - more orchids are killed by over-watering than by any other reason because it causes roots to rot; it is best to water the day before the plant dries out (use the tip of the pencil and insert into soil, it will darken with moisture if the plant has enough moisture), and lastly, 5 - FERTILIZER - use a 20-20-20 fertilizer diluted to 1/4 strength each time you water.



Paphiopedilum, Photo Credit: J. Mason

Some of the most popular orchids you may want to consider are: 1- Cattleya Alliance Hybrids (epiphytes or air plants) thrive best in a bright light southern exposure - light is the most important factor in growing and flowering cattleyas; 2 - Dendrobiums (epiphytes with well developed pseudobulbs) also thrive well in a lightly shaded southern window, but also thrive in an east or west exposure; 3 - Paphiopedilums (Lady slip-



Phalaenopsis, Photo Credit: J. Mason

pers) have long lasting blooms and do well in east and west exposures (similar to African violets) and are the most adaptable to light requirements 4 - Phalaenopsis (moth orchids) are the number one best orchid houseplant and also thrive well in east and west exposures.

Orchids grown in the home during colder months can be moved outdoors in a protected area during the summer. They must be protected from direct sun and position them where they can be watered and cared for easily. And when they are returned to indoors in early autumn, inspect the plants to make sure they are free of insects and ailments. Overall, growing orchids in your home is easy, especially if you have been successful in growing other houseplants indoors. For more information visit: <https://www.aos.org/>.

Space-Saving Vegetable Garden

Joy Hudson, Master Gardener Volunteer

This year, more than ever, I was determined to grow a few vegetables of my own – nothing complicated – tomatoes, radishes, Swiss chard and a few herbs, along with a plant that's not so familiar to most Americans. The plant in question is called callaloo (*Amaranthus viridis*), which is one of the more common greens grown in the West Indies. It is also known as Amaranth. It can often be mistaken for a weed, but don't be put off by the weedy appearance. Harvest frequently to prevent tough stems and early bolting. This year, I was also gifted a few cabbage starters, which I had never grown before, and enjoyed watching them grow and finally form heads. More recently, I also added a few sweet potatoes that had started to sprout in my pantry.

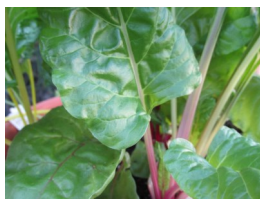


Photo Credit: J. Hudson

Unfortunately, with the nightly visits from the neighborhood deer, this dream could only be accomplished by placing the Swiss chard and cabbages in the sunniest spot in my lanai at the base of potted trees. On the other hand, plants that are able to handle the warmer weather, such as the heirloom tomatoes, callaloo, herbs, radishes, and sweet potatoes are planted in a 5'x6' space next to my air conditioner and mostly hidden from view by a well-established viburnum hedge. An old wheelbarrow is used to completely close off the area from the deer. Herbs are planted in a window box, with all the other plants placed in the largest pots I had available since my shopping is restricted. I barely have space to walk. But the rabbits soon discovered my hidden garden, at which point we were forced to place an unobtrusive fence completely around the small area made from chicken wire, with a gate, so I could get in. No visible fencing is allowed by the HOA where I live.



Photo Credit: J. Hudson



Photo Credit: J. Hudson

Is this worth the effort? Absolutely! Think of this as a modern-day Victory Garden. Since most of these plants were started from seeds, this project is not only economical, but mentally satisfying, delicious, and just plain fun.



Photo Credit: J. Hudson



Plants For Shade

By Julia Wilson, Master Gardener Volunteer

As our landscapes mature we may have to look for plants that like shade to part shade. One of my favorites is the Regina Blue Walking Iris (*Neomarica caerulea* 'Regina'). It may also be known as the Giant Apostles' Iris. Walking Iris are clumping herbaceous perennials that can reach a height of 18 to 36 inches with small iris like flowers. This cultivar is more cold hardy with strong upright fans and fragrant 3" to 4" wide blue-purple flowers. It will take some sun when given adequate moisture. With its fan shape and pops of color, this plant has many uses in the garden. It really makes a statement when massed together. The fans of greenery with the occasional flower strike a bold pose. Yet a single plant in a container will also put on a show.



Photo Credit: J. Wilson

Neomarica sp. is one of those plants with several common names—fan iris because of its sword shaped leaves; apostle plant because some believe it needs twelve leaves before it will bloom and walking iris because new plantlets form at the tops of the flower stalks which then bend to the ground and take root. The *caerulea* species of the *Neomarica* does not bend down as readily and does not often walk. But they will root easily when put in soil. These plants tolerate a wide range of soils and are easy to grow. The Regina cultivar is considered more heat, drought and salt tolerant than other *Neomarica* species. The low maintenance is a big reason it is a favorite in my garden. Then when it easily propa-



Photo Credit: J. Wilson

gates more, likes part shade and survives year to year, that's a winner! Visit <http://edis.ufl.edu/fp426> and www.agrstarts.com.

Mistakes You Could Be Making in Your Yard

Lori Powell, Master Gardener Volunteer

Impulse buying when shopping at the garden center.

Just because it looks pretty, doesn't actually mean it belongs in your yard. Purchasing plants that need sun when your yard is shady, or buying plants that are not salt tolerant when you live at the beach, never turns out well. Read plant tags when purchasing plants for your garden. Make sure you're matching the right plant with the right place. Ultimately it's better to do your research on which plants will do best in your yard and have a plan before visiting the nursery. Visit <http://ffl.ifas.ufl.edu>.

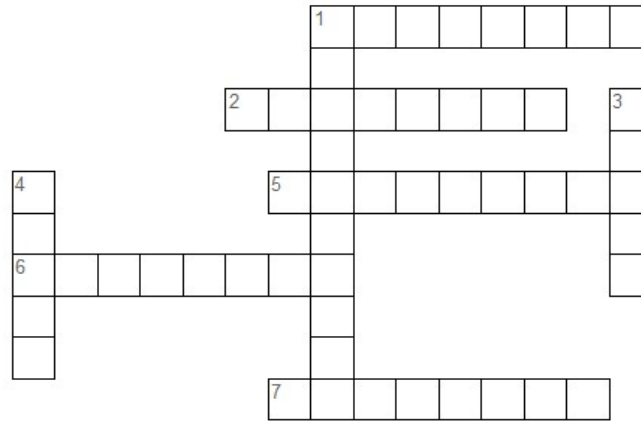
Irrational Irrigation. Water is a valuable resource and should not be wasted. Not following water restrictions, watering while it's raining, watering with misaligned or broken sprinkler heads, watering too long, and watering after a major rain event all waste water. Get a rain gauge and watch the weather. Most lawns only need 1/2 - 3/4 inch of water per week. Visit <https://www.sjrwmd.com/water-conservation/> for more information.

Cutting the Grass too short. Thinking that cutting your grass shorter will reduce the frequency that you have to cut your grass? This will do more harm than good. Cutting the grass too short (or scalping) looks bad and can harm the root system. It could also result in a bare patch, which could make it inviting for insects and susceptible to disease. In the summer, your lawn needs a little more shade, so let the blades grow just a little bit more. It will also help the water not evaporate so quickly. St Augustine grass should be cut between 2- 1/2 - 4 inches; bahiagrass 3 - 4 inches; and Zoysiagrass 2 - 3 inches. For more information visit: <https://gardeningolutions.ifas.ufl.edu/lawns/lawn-care/mowing-your-florida-lawn.html>

Improperly Fertilizing. The soil in our area is mostly sand which lacks many nutrients that makes fertilizing necessary. Every fertilizer product will include a "guaranteed analysis" depicted as three hyphenated numbers (10-10-10, 14-7-7, 34-0-0). These numbers represent the percentages of nitrogen, phosphorous and potassium, or N-P-K, in the container. Each of these nutrients plays a unique role for the plant. Nitrogen is used to create lush leafy growth. Phosphorous is used for production of roots and fruits. Potassium builds strong stems, resistance to pests and overall vigor. Soil acidity is also a consideration that is extremely important to fertilization. All plants have their soil pH range preferences. Some plants are "acid lovers" (low pH), others require a balanced pH, and some like an alkaline situation (high pH). Within that range they use nutrients to their maximum benefit. Soil test results give the most reliable information regarding your existing soil fertility. Contact our office for information on how to collect a soil sample and to arrange a time to drop off your sample as well as to get recommendations for fertilizer and pH adjustments that are needed. Look for fertilizers that are specific for what you are fertilizing. For example, there are fertilizers specifically formulated for palms, citrus trees, etc. Always use a "slow release" fertilizer. Visit [https://ffl.ifas.ufl.edu/handbook/Fertilize Appropriately.pdf](https://ffl.ifas.ufl.edu/handbook/Fertilize_Appropriately.pdf).

Overusing Pesticides. Pesticides can not only ultimately end up in the food you eat but also wipe out beneficial bugs, like bees, moths and butterflies, in addition to any 'pests' you're hoping to target. To control pests, choose the least toxic methods that will manage the pest. Spot treat where pests are abundant and use selective chemicals rather than broad spectrum chemicals. Always read and follow insecticide label instructions. For more information visit <https://gardeningolutions.ifas.ufl.edu/care/pests-and-diseases/pests/management/pesticide-types.html>.

Garden Insect Pests



Across

- 1 Releases a foul odor when disturbed
- 2 Bright white in color that typically feed on the underside of plant leaves; from the Aleyrodidae family
- 5 Insect that feeds or mines between the upper and lower epidermal leaf surface
- 6 Bright, green striped and up to 3 inches long with a thick horn on their rear
- 7 Pink soft bodied insect covered with white waxy cottony material that excretes honeydew

Down

- 1 Generally live on the underside of the plant where they spin silkwebs
- 3 1/16 inch long commonly found in flowers and fruits
- 4 Small insect that feeds by sucking sap from plants and reproduces quickly

Summer Planting Guide

Vegetables

- Cherry tomatoes
- Okra
- Pumpkin
- Southern peas
- Sweet potatoes

Annuals/Perennials

- Butterfly lily
- Celosia
- Coleus
- Gladiolus
- Ornamental pepper
- Torenia
- Vinca

Herbs

While most herbs will not grow well from seed, some do well from small plants



UF/IFAS Extension Flagler County Master Gardener Volunteers

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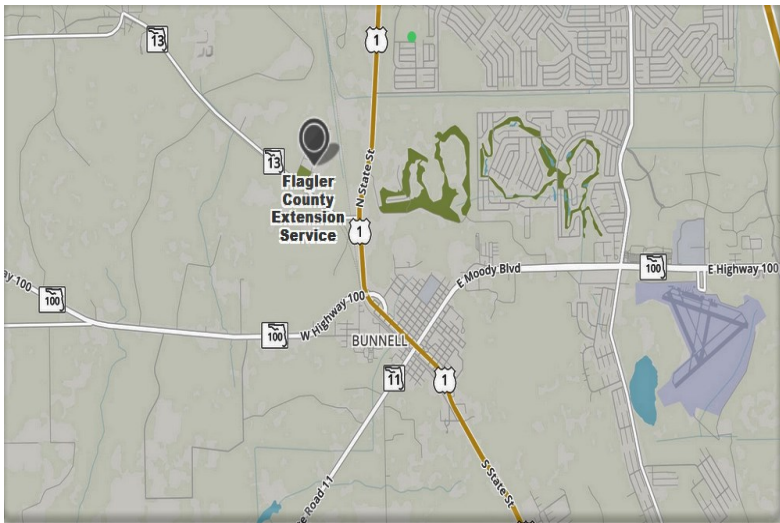


Our Mission

To assist Extension Agents in providing research-based horticultural education to Florida residents.

Our Vision

To be the most trusted resource for horticultural education in Florida.



Up-Coming Events

Virtual Plant Clinic

Please register for our Thursday Virtual Plant Clinic at:

<https://ufl.zoom.us/meeting/register/tJisc-qrrDMvHtDKgWQOVIAPiXpNQk5w0qaA>

Please join our Virtual Plant Clinic at 10:00 am every Thursday morning. We will discuss plant disease and diagnostics of common plant species grown in Flagler County. The meeting will be set up as a question and answer period and each case will be allotted 10-15 minutes for open discussion, plant diagnosis, and recommended treatment.

When:

Recurring on Thursdays at 10:00 am

Zoom:

After you register using the link above, you will receive an email with the Zoom link and Meeting ID. Once you've logged into the Zoom meeting, you will be sent directly to a Zoom "Waiting Room." Please wait for a few minutes until the Zoom meeting host admits you into the meeting. The meeting host and attending Master Gardener volunteers will allow all participants to share their screen so that individuals can hold up their plant samples close to the computer screen for diagnosis. Before beginning the question and answer period, the meeting host will lead a brief introduction and provide a "hot plant topic" of the week.

By Whom:

The Master Gardener Volunteers of UF/IFAS Extension Flagler County w/ Agent Mimi Vreeland

Boom!

We will be ready to answer all of your lawn & garden questions. Please bring any plant samples on-screen to the Zoom meeting to better assist us with an accurate diagnosis and treatment recommendation.

Stay Connected!

Flagler County Extension: <http://flagler.ifas.ufl.edu>

University of Florida Solutions for Your Life: <http://sfyl.ifas.ufl.edu>

Florida-Friendly Landscaping™: <http://ffl.ifas.ufl.edu>

UF/IFAS Gardening Solutions: <http://gardeningsolutions.ifas.ufl.edu/>

University of Florida Master Gardener: <http://gardeningsolutions.ifas.ufl.edu/mastergardener>

The Flagler County Master Gardener and Horticulture program is open to all regardless of gender, race, color, nationality, creed or disability.