



# The Council Quarterly

Quarterly Newsletter of the Florida Urban Forestry Council

2019 Issue Two

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## CITY OF NAPLES PLANS FOR PALMS

Submitted by Heather Shields, City Arborist and Project Manager - City of Naples

The City of Naples is a beautiful community located on the Gulf of Mexico. Residents and elected officials take great pride in the integration of natural and built environments that provide for an appealing quality of life. Having a diverse and well-managed urban forest adds greatly to Naples’ distinct character and serves to help Naples become the “Green Jewel of Southwest Florida”--one of the City’s Critical Element Goals in the 2007 Vision Plan.

The City, through its Community Services Department, currently manages an urban forest of 19,851 inventoried trees and palms. Palm trees account for 69% of

the inventoried publicly-owned trees, representing 41 different species of palms. There are approximately 2,959 viable planting locations that are vacant. The City of Naples is proud to have earned the designation of “Tree City USA” for the past 22 years and has received the Tree City USA “Growth Award” for the past 12 years.

Maintaining diversity in the tree population is a key consideration for final planting recommendations. Research shows that urban forests should maintain diversity in species to mitigate the opportunities for catastrophic disease or pest infestation that could significantly alter the character and quality of the existing tree canopy.

Therefore, the City continuously works to maintain a diverse and resilient urban forest. Naples strives to plant native species of both canopy trees and palms. The City works diligently to ensure the local tree population is diverse and to avoid the dominance and vulnerabilities of monocultures. To achieve its goal, the City works collaboratively with the City’s appointed Tree Board and Homeowners Associations. Trees introduced into the built environments of Florida’s urban communities are not always comprised of native species. Therefore, non-invasive, tropical exotics have a role when enhancing the City’s Gulf Coast character and tree-minded communities.

The Urban Forest in Naples is a balance of hardwoods and palms. Our community treasures the hardwood population for the shade and beauty offered. The palms also provide beauty and scale that helps create defining community characteristics. In

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# PRESIDENT'S MESSAGE



*The urban forests of Florida have an opportunity for greater canopy diversity than many states of our United States. We have hundreds (some experts say over 1,000) species of palms that grow and are part of our urban forest canopy throughout Florida. There are native species and introduced or exotic species that are documented in Florida back through every historians' writings. FUFC includes palms as desirable "trees" for our urban forests, and with the current revisions for our Right Tree Right Place posters (new editions coming out soon for North, Central, and South Florida), there are palms we recommend for everyone to plant and maintain.*

*An interesting palm fact for Florida is that our State Tree is the Sabal palmetto, the Sable Palm. This is also known as the most planted palm in our landscapes. As the research from Dr. David Fox of University of Florida shows, the Sable Palm is a long-lived and hardy individual for us to have and enjoy in our urban landscapes and forests.*

*The tree inventory results for the City of Naples show one example of the great diversity of palms and trees in our cities, with 69% of the total tree population being the palms. This is similar to many of the more developed, or urban, cities in Florida. Palms are a significant part of planning and design for our landscapes and are a high percentage of the canopy we manage.*

*Focusing on the growth and preservation of large canopy trees is what we are told is best for increasing urban forest values and property values. Planting groupings of palms can also be great for increasing canopy areas, filling in gaps for canopy areas, and adding some WOW factor to our properties. It is the palms that are features, or focal points, for many historic properties in Florida and many modern homeowners' properties too.*

*Seeing and enjoying palms, and marketing our sub-tropical climate with pictures of palms, is a mainstay of tourism in Florida. You can be cool in the shade of a tree or a palm in the Sunshine State, so get out and enjoy the benefits of an urban forest near you soon!*

*In Support,*

*John Harris*  
FUFC President

## NEWSLETTER ADVERTISING ANNUAL RATES:

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*Celebrating achievements in urban forestry should be a part of every program. Awards and recognition will help build integrity into what you do and why you do it. The Florida Urban Forestry Council provides an awards program that can help celebrate the people and programs that help Florida's urban forests remain a great place to live, work, and play.*

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June of 2017, the City Council adopted a revised Chapter 38 – Tree Protection – of the City’s Code of Ordinances. This chapter of the code establishes the City’s Tree Board and provides articles for protecting publicly-owned trees. This revised ordinance was approved following two years of research and public meetings to strengthen the statutory protection of the City’s Urban Forest while also creating a more user friendly and readable format. One item that was addressed in this rewrite was the definition of a tree; “Tree means a living, self-supporting plant, that has or can have a mature diameter of greater than four inches measured at 4-1/2 feet above the ground, more or less upright in growth habit, generally having one stem but may be multi-stemmed and shall include palm trees.” The Palmetto (Florida’s State Tree) receives the same protection as a Live Oak (*Quercus virginiana*) under Naples Code.

The consideration and protection to both hardwood and palm species within the urban forest carries over to the budget, annual management and planting evaluations in the City of Naples. When preparing budget needs each species is considered. For example, when looking at trimming budgets, hardwoods are trimmed

on a 2-year cycle; however, a species such as a Royal Poinciana (*Delonix regia*) is trimmed annually due to growth patterns. The City removes the nuts and dead fronds on Coconut palms (*Cocos nucifera*) twice a year, but does not trim the self-pruning Foxtail palm (*Wodyetia bifurata*). Royal palms (*Roystonea regia*) in the high-traffic 5th Avenue South district are banded and trimmed as needed to keep the “drop” areas under them safe for pedestrians and patrons enjoying outdoor dining at multiple 5th Avenue restaurants.

On September 10, 2017, Hurricane Irma made landfall on Marco Island. Irma’s eye passed directly over the City of Naples moving through late in the afternoon; a wind gust of 142 mph was reported at the Naples Municipal Airport. This storm caused a 9.82% loss to the Urban Forest, including 518 palms. This loss was spread throughout the City with no one area being hit harder than another. There were areas of concentrated damage where documented tree damage was attributed to micro-bursts or tornadic activity within the storm’s heavy rain bands.

Once the City completed the clean-up process, attention turned to the urban

forest inventory, updating the data and beginning the planting restoration process. The City of Naples contracted to obtain a new inventory; this was completed in February of 2019. At the direction of our City Council, efforts to replant the vacant street trees were initiated. The Tree Fill-in Program in the City of Naples is currently funded at \$500,000 annually. In 2018, 170 hardwood trees and 89 palms were planted. The draft planting plan for 2019 has palm plantings at 235 sites and hardwood plantings at 201 sites. The restoration of iconic palm-lined streets is vital to residents and visitors who have come to associate the image with the Naples brand.

The City of Naples will always have the alluring beauty of pristine Gulf Coast beaches, stylish shopping areas and unique architecture. The City’s diverse urban canopy is equally alluring and critically important to the quality of life residents enjoy and support. Naples’ diverse palms provide interest, charm and community character that simply cannot be replicated by any other plant material. They will always stand prominently in Naples’ urban forest and will forever hold a special place in the hearts of residents and visitors.

**Save the Date!**

# Expanding Your Canopy

## March 4-6, 2020

FLORIDA URBAN FORESTRY COUNCIL

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- installs osprey nesting dishes atop of the utility pole cross arms as needed for these magnificent birds.
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- offers net metering to members interested in renewable generation such as photovoltaic systems.
- recycles retired power equipment, scrap steel, aluminum, copper, porcelain, fluorescent lights, ink printer and copier cartridges, plus much more.
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- |                                   |                                     |
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# STUMP THE FORESTER

**QUESTION:** Why are old leaf bases on Sabal palms called boots?

**ANSWER:** The term “boot” is short for “bootjack.” The base of the petiole, or leaf shaft, attaches to the trunk in two places. As the bud expands the leaf base splits between the points of attachments forming a Y-shape stalk. The Y-shape stalk resembles a traditional, yoke-like device used for removing boots--known as a bootjack or boot pull.

There was a time when the bootjack was a common household accessory placed outside doorsteps and thresholds. The simple Y-shape was formed from a short shafted, inclined plane, with an open “U” or “V” at the upper end. A foot is pulled from a boot by placing the boot heel into the opening while stepping on the short shaft with the other foot. The boot is easily removed and the hands are kept free and clean. Bootjacks were often ornately made of wood, or cast iron. The open mouth often resembled livestock antlers, insect antennae or other creative designs. The split-leaf petiole of the cabbage palm not only has the shape of a bootjack, it can actually serve as a natural boot pull.

Bootjacks aren't as common as they once were. Maybe the term “boot” is a bit antiquated here in Florida. The Y-shape also resembles that of the prominent strap of the Florida flip flop. Perhaps the term “bootstraps,” or simply “straps” would be permissible in the Sunshine state.

Though boots can provide a decorative outer shell they are only temporary. Some palms, as

the Washingtonia palm (*Washingtonia robusta*), will have persistent old leaves able to retain a mass of dead, drooping fronds just under the crown--referred to as the “hula skirt,” or “skirt” for short. The weight of old fronds will naturally slough off in time. The shelf life of the “basket weave” formed by boots can be extended by pruning the petiole, or leaf shaft close to the trunk; and therefore, decreasing the gravitational pull on the length and weight of inert, old fronds. Palm boots can actually collect, or support, organic material that will spur the growth of ferns, orchids and the even the saplings of other trees. The aesthetic value of the bootlace weave is a personal preference. If a smooth, boot-free stem is preferred, and fronds and boots are removed, special care should be taken to prevent injury to the trunk.

Date palms, such as the Canary Island date palm (*Phoenix canariensis*), often have a persistent leaf base (boots) just under the crown. The bases are often seen neatly pruned into a bulbous shape that resembles a pineapple – conveniently referred to as “pineapple pruning.” The pineapple boots are only temporary. Eventually they will decay and fall apart.

Properly outfitted with stylish genes, a crown of fronds, hula skirt, pineapple accessories, and fashionable boots, the palm tree just might be the best dressed tree in the Florida urban forests.

*Answer provided by Joe Anderson, JEA Utility Forester (and collaboration with the FUFCA editing staff)*



*If you would like to ‘stump the forester,’ see page 15 for information on submitting your question!*



# HOW OLD IS THAT PALM?

*Submitted by David A. Fox, PhD, Lecturer - University of Florida, School of Forest Resources and Conservation*

People are awed by the longevity of some trees, like the 700-year-old bald cypress in Corkscrew Swamp Sanctuary, or 5,000-year-old bristlecone pines in California or 2,000-year-old olive trees in Greece. We love ancient trees, especially trees that could have been a witness to history. But what if I told you that you could get a 100-year-old tree planted in your yard for a couple hundred dollars? It's true! More on that in a minute.

Wondering about the age of a tree is a frequent speculation. For typical dicot trees like pine, a forestry device known as an increment borer is used to extract a core of wood from the stem so that the annual rings may be counted. The process can be a bit more difficult with hardwoods like oaks or maples due to the structure of the wood and the need to view a thin section under a microscope, but it still can be done. Dendrochronology is the fascinating study of tree rings or ages that are correlated to historic events.

This dating or aging procedure, however, does not work on palms because they are monocots. Monocots do not produce secondary growth otherwise known as stem diameter growth. The stem only grows in height from a single apical meristem known as the bud. The stem diameter is determined during the palm establishment period and is likely governed by a suite of environmental factors such as soil fertility, water availability and light availability.

So, for palms, their visible history is shown along the length of their trunk rather than in the cross-section of their trunk. The oldest palm wood is at the base as the youngest wood is being added every year just below the bud. While a palm stem does not increase in diameter on an annual basis by putting on another ring of wood, it can change in diameter slightly based on other factors. Changes in hydrologic conditions, crown damage, nutrient availability, or light exposure can result in increases or decreases in new stem diameter growth.

Back to the age of a palm – how can it be determined? Knowing the year that palm seed sprouted and subtracting it from the





current year is the only way. Sorry. For nursery-grown stock, that age determination is possible. For our native *Sabal palmetto* that is typically transplanted from wild populations, determining the age is impossible for a couple reasons. The time span from seed sprout to trunk elongation (height growth) is highly variable based, again, on environmental conditions. Research tells us that, in a forested situation, cabbage palms can languish in the establishment phase for between 30 and 60 years before putting on height growth. Then, the height growth rate can vary from year to year based on those previously-mentioned environmental factors.

Obviously, getting a firm grasp on cabbage palm height growth in the wild will be a very long-term project. But we can see clues that *S. palmetto* may be some of the oldest trees in some forests. We typically think of live oaks as our ancient forest denizens in Florida based mostly on their great girth

and crown spread. However, if you look carefully, you might spot an oak limb that is dodging around a cabbage palm that was there first!

We can, however, get an idea of the annual growth rate in the urban environment. Look at some cabbage palms that have been in the landscape for a few years and you will likely notice a trunk diameter change below the bud. This is a 'date stamp' of when the palm was transplanted from the wild into the urban setting. Typically, the diameter has increased since planting due to better nutrition, more sun, less competition, or consistent water availability in its new home. However, the diameter can also decrease because of water rationing, poor soil or over pruning.

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*"... that cabbage palm with eight feet of clear trunk you just had installed in your yard could be between 80 and 110 years old..."*

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I made some observations using the Florida Turnpike as my north-south 'transect' to get an idea of the average height growth of cabbage palms in an urban setting. I used a laser hypsometer to measure palm trunk heights and assumed that the year different portions of the Turnpike were opened was also the year of palm establishment along those sections. Based on measurements of 37 planted palms from Okahumpka to Fort

Drum service plazas, the annual growth rate averaged about 2 inches per year. Your mileage may vary.

Therefore, that cabbage palm with eight feet of clear trunk you just had installed in your yard

could be between 80 and 110 years old if we assume the 30- to 60-year wildland establishment period and an urban height growth rate of two inches per year. OK, so that palm isn't really ancient compared to my previous examples, but it's still older than any other tree you could plant! And it's nice to know that we are surrounded by many centennial trees in our Florida cities, that, theoretically, can continue to produce ecosystem benefits for centuries to come.

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# Tree of the Quarter

**PINDO PALM**  
(*Butia odorata*)

Submitted by Jim E. Davis - UF/IFAS  
Extension Multi-County Director, Sumter  
and Hernando Counties



Florida is well-known for its citrus, beaches and of course, palm trees. Throughout the state, one does not have to look hard to see these princes of the plant world in the landscape. Not all palms do well in certain areas of the Sunshine State though. For example, if you live in North Florida the stately native royal palm (*Roystonea regia*) or popular Christmas palm (*Adonidia merrillii*) will not survive due to the lower, freezing temperatures of winter. There is not as much palm diversity in the northern or central parts of the state as in the south. Only a select number of palm species can fare well throughout the entire state. One of the hardiest palm species in Florida, is called the pindo palm.

Also referred to as the jelly palm, pindo palms originated from the grasslands or woodlands of South American countries of Brazil, Argentina and Uruguay. It is a very cold tolerant palm species. It is adapted to survive in temperatures as low as 5 to 10 degrees F. In the United States, pindo palms have been observed surviving in as far north as the Carolinas on the east coast and northwestern states of northern California and Oregon.

Pindo palms are slow growing palms that reach a mature height of 15 or 20 feet. This makes it an ideal specimen for residential

or commercial landscapes. If planted in groupings, palms should be planted 10 feet apart from one another. Due to its small size, this palm is an appropriate species for use under powerlines and as a focal plant in a small lawn.

Pindo palms are best suited in full sun, but can grow in partial shade. They are said to be moderately salt tolerant. However, in some publications it is stated that they are not tolerant of salt spray on foliage. Pindo palms are also reported to be drought tolerant, when established.

Pindo palms are considered fairly disease resistant. There have been no documented cases of fusarium wilt or lethal yellowing on pindo palms. It can be susceptible to the fatal palm disease called *Ganoderma zonatum*, but it is reported to rarely have been observed.

Pindo palms are readily available in garden centers and nurseries. Purchase healthy plants free of any nutrient deficiencies. Roots should be moist and free of weeds. Follow UF/IFAS guidelines when planting <https://edis.ifas.ufl.edu/ep001>.

**Trunk:** The trunk of pindo palms are solitary and leaf bases tend to persist throughout the life of the plant. There is no crownshaft like you would see on a foxtail palm (*Wodyetia bifurcata*) or the royal palm. Trunk diameter can range from 1 to 1.5 feet. Often, ferns can be seen growing in the old leaf bases, or boots. This will not harm the palm.



## Interesting Facts:

- The common name of "Jelly Palm" comes from the fact that fruit can be made into an edible jelly. Fruit has also been used to make a fermented wine. The seed can be used as a coffee substitute.
- According to the latest UF/IFAS assessment of non-native plants in Florida's natural areas, the pindo palm is listed as "Not a Problem Species" for North, Central and South Florida.
- Fruits of the pindo palm are also called "Pindo Dates."
- Seeds are incredibly hard to germinate. It is recommended that the hard endocarp be cracked using a bench vise or commercial nut cracker. Plant 1-3 seeds in an environment that is moist and where temperatures are between 95-100 degrees F. By doing this, germination may occur in about three months.
- Pindo palms can cross with queen palms producing a sterile intergeneric hybrid known as a mule palm (*X Butyagrus nabonnandii*).
- Formerly known as *Butia capitata*
- Lifespan is reported to be approximately 80 years





**Flowers:** The pindo palm produces an inflorescence with yellowish to orange aromatic flowers in the spring. Flowers are unisexual, containing 6 male stamens and 3 female stigmas and a solitary pistil. Each inflorescence can contain 50-100 flowering branches.

**Fruit:** Orange to yellow fruit are formed on the inflorescence once female flowers are pollinated. Fruit are 1" diameter fleshy drupes that mature during the summer months. Fruit can be messy and a hazard on hard surfaces.

**Leaves/Petiole:** Leaves of a pindo palm are light green to bluish silver in color. The arching leaves are odd pinnately compound, reaching a length of 5 to 10 feet. Each leaf has leaflets that are 18 to 36" long. The petioles are 2 to 4 feet long and are armed, having spines along both edges. Pindo palms produce about 8 leaves per year.

**Pruning:** Pindo palms are not self-cleaning. Pruning of dead leaves may be necessary for a cleaner look. Pruning of inflorescence can be done anytime and will not harm the palm.



Avoid pruning leaves that are not dead. Use a sharp pruning tool and disinfect to prevent diseases. Soaking pruning tools in solution of 50% (1-part 70% isopropyl rubbing alcohol and 1- part water) for 5-10 minutes will be adequate to disinfect pruning tools.

**Roots:** Roots are not considered a problem. In some palm species, roots may extend 50 feet from the trunk of the palm. It is suggested to avoid the application of turf fertilizers near the root zone of palms to prevent nutrient deficiencies.

**Companion Plants:** Coontie (*Zamia spp.*), Yaupon Holly (*Ilex vomitoria*), Rosemary (*Rosemarinus officinalis*), and Dwarf Walters Viburnum (*Viburnum obovatum*).

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<https://edis.ifas.ufl.edu/ep443>



# A PASSION FOR PALMS

Submitted by Joe Anderson – JEA Utility Forester and Certified Arborist

I think I shall never know a psalm as lovely as a palm. The poetic palm tree--an iconic symbol of a surf-side, tropical retreat. The classic rendition of the idyllic beauty and tranquility of an island paradise must have three components - a sun (rising or setting), a reflective body of water (ocean), and at least one leafy palm tree. Boats, seabirds, and hammocks might add a nice touch to the image, but they are not required. The picturesque palm, on the other hand, is a requirement. Florida wouldn't be Florida without its palms. The palm tree--the giant king of the monocots--not only has a place within the urban forests of our Sunshine State, it is a requirement.

Let's review the things we knew from palm school. The diversity of flowering plants (angiosperms) have been divided into two distinct groups--dicots and monocots. The plants that have one seed leaf (cotyledon) emerging from the embryo are the monocots; those with two embryonic leaves are dicots. All monocots share a common ancestry. Dicots do not. Though subtle and minute, the family resemblances among monocots are more akin and similar than other angiosperms that are not monocots. Even with their common traits and ancestral constraints, the monocots fill a diversity of evolutionary occupations.

Monocots include the palms, orchids, grasses, major grains, and most of the flowering plants that are cultivated from bulbs – lilies, tulips, irises, and daffodils. Contrary to some rumors and gossip, the Florida legislature did not get it wrong when designating a monocot - the sabal palm (*Sabal palmetto*) - as the State tree in 1953.

It is apparent that palms are not orchids, grasses, or grains. Palms are trees. Palms have earned the recognition and status of trees. Through the evolutionary trials of time, enduring millions of years, palms have traveled the distance, overcome the struggles, suffered through the challenges, and developed

the progressive benefits of trees. They are upright, self-supporting perennials, typically

having an elongated stem or trunk that can grow to considerable height, possessing a mature diameter greater than four inches (at DBH), and bearing leaves at some distance from the ground. The management and care of palms will reach beyond the prowess of a florist, turf manager, or agriculturalist needed for orchids, grasses, and grains. The stewardship of palms will require the skills, equipment, techniques, art, and expertise of an arborist and/or tree care specialist.

The palm tree will provide most, if not all, of the benefits received from other broadleaf and coniferous trees. Palms provide aesthetics, shade, carbon sequestration, storm water control, soil stabilization, and other perks brought by trees. A single, mature palm may not provide the same level of ecological services as a single, mature shade tree, but in some instances, they may present less risks too. Palms are trees, but being monocots, they are built differently. The vascular tissues (xylem and phloem) are scattered throughout the trunk rather than confined to concentric growth rings found in deciduous and coniferous trees. Palms have a single growing point (apical meristem) and lack the lateral/secondary meristem (cambium) needed for continual growth in girth, or diameter. Outward expansion of the trunk is charted and mapped by "establishment growth"--a pre-determined fixed, or established girth. After achieving a definite basal diameter, the stem resumes its elongation, maintaining a nearly constant, cylindrical form.

Within a species, there's a status quo to the shape, form and space requirement. A palm's perpetual symmetry is largely

predictable and dependable. Though palms species are diverse and variable, the architecture of the palm tree is marked by symmetry, balance and simple mathematical ratios reminiscent of the classical architecture of Greece and Rome. The uniformity of the palm can be a striking

attribute to receptive designs of building and grounds.

For centuries, and throughout the world, palms have stood as ordained prophets preaching the gospel of trees to those that design, build and govern cities. Palms may be perfect for placement where space is a factor. Clumping varieties can form screens and vegetative buffers between narrow boundaries of incompatible land-use properties. Group plantings can create a dramatic statement providing awesome photo backdrops and scenesapes. In the confined spaces and shared competitive arenas of our urban and suburban environments, the ornamental palm can be the right tree in the right place.

A passion for palms will include an appreciation for a palm's ability to break the homogeneous character of rapid and sprawling suburbia and urbanization. Development often appears homogeneous with commercialization and common design standards. Global brands, company logos, billboards, building designs, industrial requirements, retail marketing, building codes and specifications become the mascara that will disguise the blemishes, color and facial features of "place." Here in Florida, palms will create the striking and necessary benchmarks, centerpieces, focal points, to an undeniable understanding that you are not in Kansas anymore.

Despite our built environment nature is its own architect. Many palms are easily and naturally propagated by seed. The small fruit of the sabal palm (*Sabal palmetto*), Washingtonia palm (*Washingtonia robusta*), date palm (*Phoenix dactylifera*), pindo palm (*Butia capitata*) and others are digested and dispersed by birds and other wildlife. A protective coating, wrapped around the seed, inside the fruit, is stripped away of its inhibiting properties during digestion. The freed seed is conveniently deposited beneath the perch of a bird, or tail of an animal. Utility poles, overhead electrical wires, and communication cables provide convenient perches for birds. Volunteer palms, growing at the base of utility poles and directly under electrical lines will eventually create a unique palm challenge for the utility arborist. For large canopy palms, the electrical hazards of a palm may lay silent and dormant till fronds reaches the height of the local

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*“Contrary to some rumors and gossip, the Florida legislature did not get it wrong when designating a monocot - the sabal palm (*Sabal palmetto*) - as the State tree in 1953.”*

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distribution lines (above 25-30 ft). The palm itself may not always be the cause for trouble. The arching fronds may create a vegetative bridge for vines to climb and reach poles, transformers and open energized lines. Unlike the classic shade tree, palms cannot be reduced in height, or directionally pruned when establishing the safe clearance for buildings, roads, walkways, sight clearances, utility lines, and other competing use for space. Side pruning may not be as effective when obtaining clearances because palms can quickly replace fronds that were removed or pruned. Sometimes the removal of live, green fronds--or the removal of top fronds where the petiole, or leaf shaft, is greater than 45 degrees above the vertex of the terminal bud--cannot be avoided. Palm removal or relocation may be the best solution when addressing a hazard between a palm and built infrastructure.

A passion for palms will undoubtedly include a passion for its parts and pieces. There is a tremendous variety of unique features between different kinds of palms. Since different palms require different care, proper palm identification is important and often challenging. The most prominent identifying features of palms are its fronds (fan-like, or feather-like); trunk shape and size; boot characteristics; presence and or color of a crownshaft (a distinctive column above the main trunk and beneath the main crown); and its fruit and flowers.

A passion for palms will also foster a passion of planting and pruning palms. Palms should be planted and pruned with clear and defined objectives in mind. It often becomes necessary to remove the potential hazards with dead palm fronds, flowering stalks (inflorescence), and fruiting clusters. Improved clearances, tree health, landscape maintenance, and enhanced aesthetic values of trees and landscapes are some of the more common pruning objectives.

During the trimming process, care should be taken to protect the central growing point of the terminal bud. This is the heart of the palm. It is a single apical meristem located at the top of the stalk and just below the origin of the fronds. All new leaves and flowers will develop from the central point

of the apical meristem, or terminal bud. Negative consequences will often result from wounds to the central bud--to include the death of the tree.

Proper palm pruning techniques are rooted in the basic understanding of how a palm grows. New fronds emerge from the terminal bud. Therefore, the crown will rise with the height of the bud. Nutrients are absorbed from the fronds. The older fronds will eventually fade, droop and die. As the bud continues to climb upward, newly positioned fronds--fresh and green--will emerge and carry on the function of photosynthesis needed to feed the tree. The green fronds will provide the building blocks needed to maintain height and diameter growth and to foster fruits and flowers. In time, the bud, with new emerging leaves, will grow to new heights. Old fronds will fade, droop, and die, and the cycle will continue.

Live, healthy, green fronds are still benefiting the tree and should not be removed if possible. Unlike most trees that will replace leaves annually, palms may retain leaves for 2-3 years. Therefore, the removal of green fronds can have long-lasting consequences. Pruning should target brown, dead leaves. Yellowing and browning leaves are in the process of translocating nutrients and may still provide a benefit to the tree. Once the green chlorophyll fades from the frond, the leaf is no longer able to contribute to the health and growth of the palm. Useful mnemonic phrases would include, "If brown, drop it down," "If green, don't intervene," "Leave on, the green frond," or simply, "Don't cut green fronds."

Safe clearance from electrical hazards, buildings, sidewalks, drives, lines-of-sight, aesthetic objectives, or to establish temporary access for cranes, aerial lifts and other construction equipment may create legitimate circumstances that will require the trimming of live fronds. Trimming

should be minimal and temporary. In time, the crown may surpass the height of conflict as with pedestrians, windows or roadways.

If possible, avoid removing top fronds where the petiole, or leaf shaft is greater than 45 degrees above a horizontal line that passes through the central bud. Preserve the most beneficial top leaves by limiting the trim to leaves at or below the horizontal plane. This will also help protect the terminal bud from injury. If fronds are cut close to the base of the petiole, special care should be taken not to damage the living trunk. Wounds to the trunk are permanent. Climbing spikes penetrate and permanently damage the trunk. Spikes should not be used unless the palm is being removed.

Date palms, such as the Canary Island date palm (*Phoenix canariensis*), often have a persistent leaf base just under the crown. You will often see it neatly pruned into a bulbous shape that resembles a pineapple--conveniently referred to as "pineapple pruning." Supplemental nutrients may be recommended to compensate the loss of photosynthates as a result of pineappling.

Note also, that pruning live fronds has been known to transmit disease between palms if tools are not properly disinfected between trees and pruning cycles.

Trimming palms will have inherent dangers and risks. Falls from heights, heavy leaf skirts, wildlife, and adjacent electrical hazards have

caused injuries and fatalities. To preserve the pleasure of palms, consult with an ISA certified arborist or professional tree care specialist about the proper care for your palm(s).

With careful selection, proper planting and care, palms will provide a beautiful and valuable contribution to Florida's diverse tree canopy. Florida wouldn't be Florida without its palms. The palm tree--the giant king of the monocots--not only has a place within the urban forests of our Sunshine State, it is a requirement.

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*"Unlike most trees that will replace leaves annually, palms may retain leaves for 2-3 years. Therefore, the removal of green fronds can have long-lasting consequences."*

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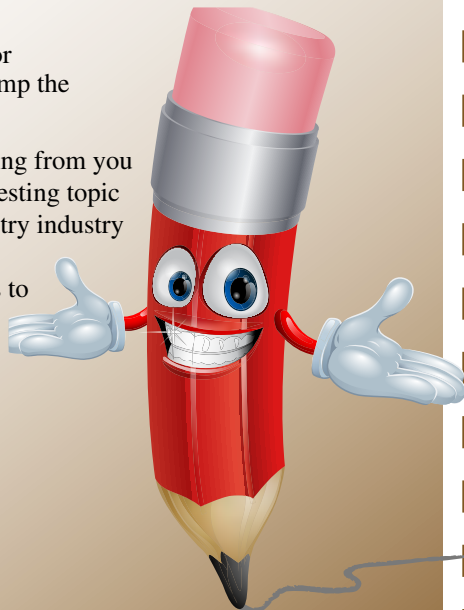
## REQUEST FOR ARTICLES

Please let us know what urban forestry projects you have going on in your neck of the woods. The Florida Urban Forestry Council would greatly appreciate the opportunity to share your information in our newsletter. These articles can include:

- New trends in the industry
- News about tree advocacy groups
- Volunteer projects
- City tree programs
- Letters to the Editor
- Questions for “Stump the Forester”

We look forward to hearing from you on this or any other interesting topic related to the urban forestry industry and profession. Please send any articles or ideas to Joe Anderson, FUFC newsletter editor, at [andejs@jea.com](mailto:andejs@jea.com).

Thanks for contributing!



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*(Dues are effective for the calendar year of January 1 - December 31)*

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