





Laura A. Sanagorski
Environmental Horticulture
Extension Agent
lsanagorski@pbcgov.org
561.233.1748

UF / IFAS
Palm Beach County Cooperative
Extension

Florida-Friendly Landscaping™
prepared for Palm Beach County Master Gardeners



I'M GOING GREEN... I'VE GOT GREEN APPLIANCES, GREEN ALTERNATIVE ENERGY SOURCES AND A LUSH GREEN LAWN



AND BECAUSE YOU OVER-FERTILIZE WE'RE NOW SWIMMING IN GREEN ALGAE

Florida-Friendly™ Landscaping

Florida-Friendly™ Landscaping

Florida Yards & Neighborhoods (FYN)

Green Industry Best Management Practices (GI-BMP)

Builder &
Developer

Homeowner

Professionals

Florida-Friendly Landscaping™ emphasizes nine major principles that can help you create beautiful lawns and gardens and ultimately:

Preserve natural resources, conserve water, reduce water pollution, save money



Florida-Friendly™ Principles

1. Right Plant, Right Place
2. Water Efficiently
3. Fertilize Appropriately
4. Mulch
5. Attract Wildlife
6. Manage Yard Pests Responsibly
7. Recycle Yard Waste
8. Reduce Stormwater Runoff
9. Protect the Waterfront



Florida Statutes section 373.185:
“quality landscapes that conserve
water, protect the environment, are
adaptable to local conditions and
are drought tolerant.”

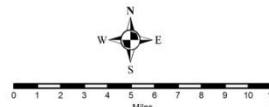
Watershed

- 550 square miles
- Three major canals
 - Earman River (C-17)
 - West Palm Beach (C-51)
 - Boynton (C-16)



Lake Worth Lagoon Watershed

- Lake Worth Lagoon Watershed
- S-155 Major South Florida Water Management District Structure
- C-16 Hydrography



A satellite map of the state of Florida, showing its coastline and major water bodies. The map is overlaid with colored lines representing local watersheds. A thick red line follows the eastern coastline from the top to the bottom. A yellow line follows the southern coastline. Several other smaller red lines are scattered in the northern and central parts of the state. The text labels are placed over the map to identify specific regions.

Indian River Lagoon

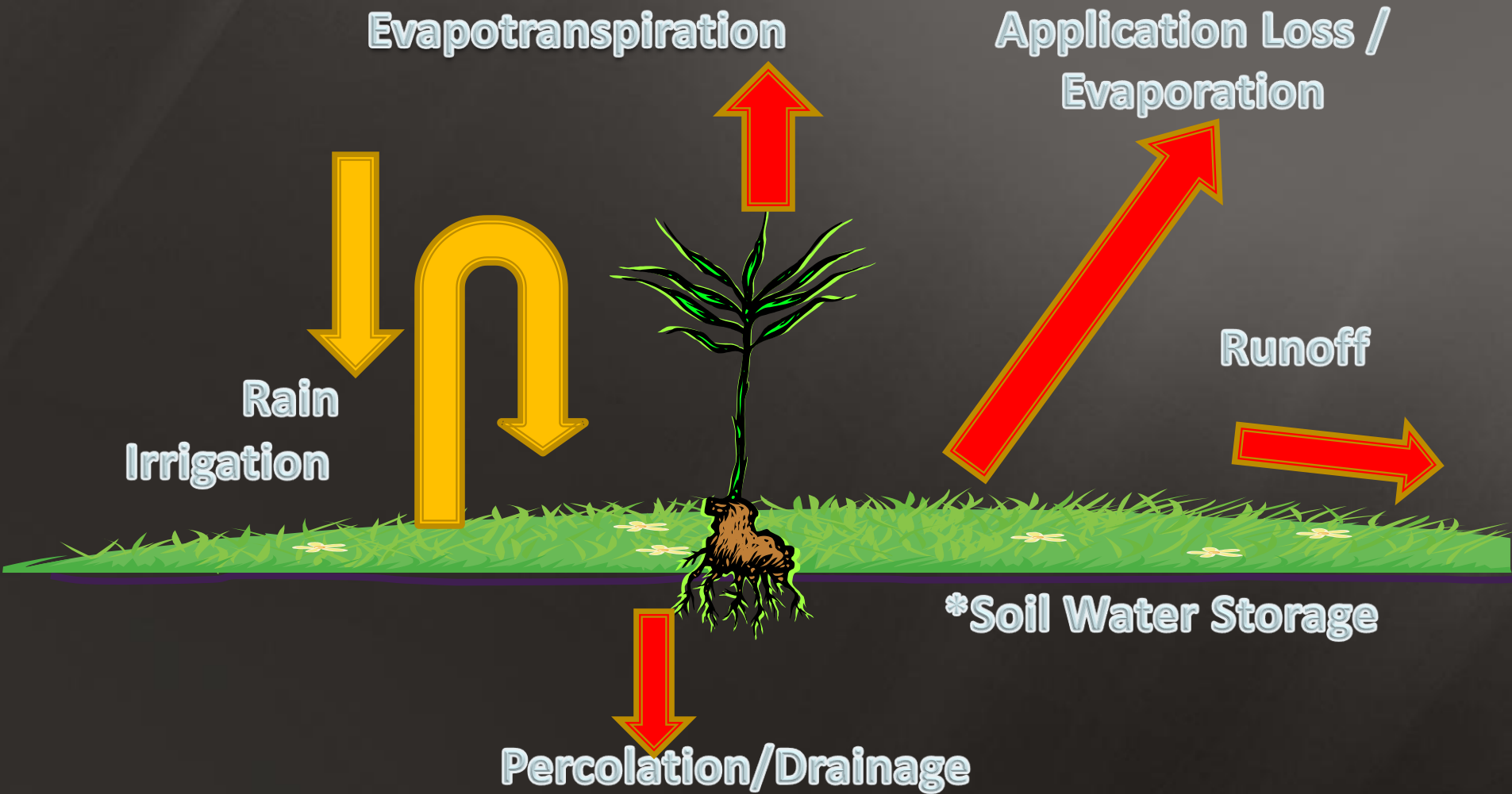
**LOCAL
WATERSHEDS**

Saint Lucie Estuary

Loxahatchee River

Lake Worth Lagoon

Water Movement in the Landscape



Human Impacts Over 100 Years



~~XERISCAPING~~

~~BLACK & WHITE~~

1. Right Plant, Right Place

Choose plants to suit existing site conditions to minimize fertilizer, pesticide, and water use

Use knowledge about the site to make sure that appropriate plants are being planted.



How is the property

Ri

What plants will thrive under those conditions?

Function

Existing Plants and Structures

Personal Preferences

Salt Tolerance



Grouping and Matchmaking

Maintenance

Light

USDA Plant Hardiness Zone

Right Plant, Right Place – Plants Serving Function in Urban Landscape



Rain Garden



Water Filtration



Littoral Zone



Right Plant, Right Place

Tree Planting: Plan for **MATURE** canopy rooting space or.....

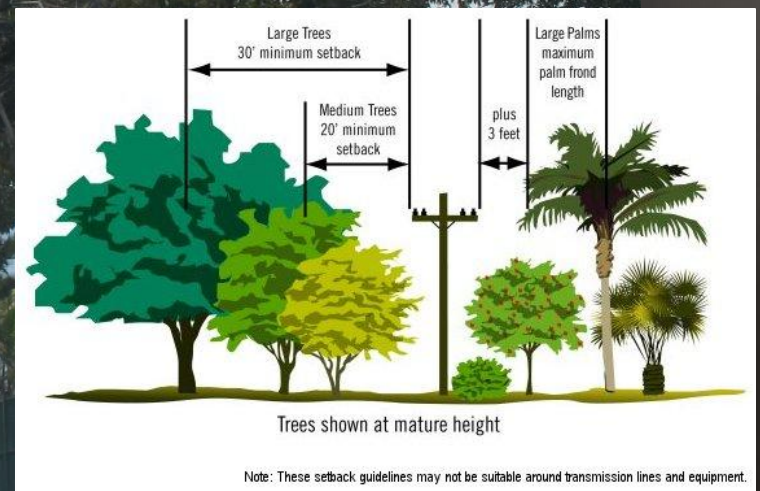


Broken and lifted sidewalks



Overhead utility wire conflicts

Right Plant, Right Place



Right Plant, Right Place

Plant Adapted, not Non-Adapted Species!!!



Foxtail with early-stage chlorosis



Foxtail with severe stunting



Queen palm showing signs of frizzle top

Palm Species Prone to Nutrient Deficiencies on High pH Soils

RIGHT PLANT, RIGHT PLACE- FUNCTION

- Canopy trees
- Small trees
- Shrubs
- Perennials
- Grasses
- Groundcovers
- Pond plants



By using the right plant, right place principle, we:

- Avoid future problems
- Reduce time, energy, money spent
- Preserve and protect our ground and surface water resources



Right Plant, Right Place



Right Plant, Right Place



Right Plant, Right Place



Right Plant, Right Place



Choose native plants to:

- Take advantage of dry spots in your yard
- Enjoy some pest and disease resistance
- Support habitat
- Preserve species

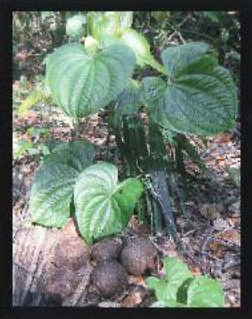


Diverse plantings resist failure, pest, and disease problems!



Invasive / prohibited plants

Palm Beach County Prohibited Plants



Air potato
Dioscorea bulbifera

Identifying Characteristics:
Vine with stems up to 60 feet or more in length. Heart-shaped leaves. Aerial tubers ("potatoes") are round, brown and range in size from golf ball to tennis ball size.

Growth Characteristics:
Found in residential areas, growing on fence lines and trees, especially in shady areas. Is dormant in winter, dropping the tubers which sprout in the spring.

Did You Know?
Introduced in 1905 from tropical Asia for commercial use to provide food for livestock.



Carrollwood
Cupaniopsis anacardioides

Identifying Characteristics:
Tree to 35 feet tall. Leaves are evergreen, shiny and leathery. Fruits are formed in 1 inch capsules and are yellow to orange when ripe - split to reveal 3 seeds.

Growth Characteristics:
Grows in wet and dry areas, in any soil type, in full sun or full shade. Invades coastal sites including mangroves, cypress swamps, and marshes. Seeds dispersed by birds.

Did You Know?
Introduced as a landscape plant in the 1960s. Drooped fruits can stain sidewalks and cars.



Will grow in shady or sunny areas. Form mats up to 4 feet thick on trees and shrubs, smothering native vegetation. Reproduce by millions of spores spread by wind.

Did You Know?
Facilitates the spread of fire into the tree canopy which can fuel destructive wildfires.



Australian pine
Casuarina spp.

Identifying Characteristics:
Evergreen tree to 150 feet tall. Although the tree resembles a pine, it does not have needles. Seeds form in woody, cone-like clusters about 1/4 inch long.

Growth Characteristics:
Found on sandy shores, pinelands and road shoulders. Grows very fast - 5 to 10 feet per year. Trees blow over easily in storms due to shallow root systems.

Did You Know?
Introduced in the early 1900s and planted as windbreaks and shade trees.



Earleaf acacia
Acacia auriculiformis

Identifying Characteristics:
Tree to 50 feet tall. Leaves are blade-like and slightly curved, up to 8 inches long. Fruits produced in flat, brown, oblong pods which are twisted at maturity.

Growth Characteristics:
Invades pinelands, scrub, and hammocks. A fast-growing, brittle tree that breaks easily in storms. Displaces native vegetation and threatens to shade out rare plants.

Did You Know?
Originally from Australia and Indonesia. Introduced during the early 1930s as a landscape plant.

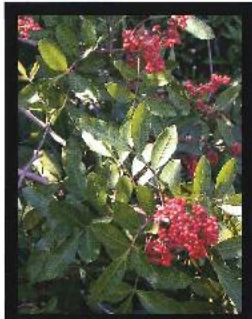


Melaleuca
Melaleuca quinquenervia

Identifying Characteristics:
Tree to 100 feet tall. White, many-layered peeling bark. Leaves smell like camphor when crushed. Fruits are small, brown, cone-like clusters that can hold up to 300 seeds.

Growth Characteristics:
Prefers wet sites such as lake shores, swamps and wetlands. Sprouts easily from stumps and roots. Spreads rapidly, creating thickets. Releases seeds when stressed.

Did You Know?
May cause headaches, rashes, asthma attacks and respiratory irritation in some people.



Brazilian pepper
Schinus molle

Identifying Characteristics:
Multi-trunked shrub or tree; can grow to 40 feet tall, forming thickets. Crushed leaves smell peppery or like turpentine. Produces clusters of red berries.

Growth Characteristics:
Salt-tolerant, able to withstand flooding, fire and drought. Sprouts easily from trunk and roots. Seeds spread by wildlife (birds and small mammals).

Did You Know?
Relative of poison ivy. Sap may irritate skin and pollen may cause respiratory irritation.



Kudzu
Pueraria montana var. *lobata*

Identifying Characteristics:
Vine with rope-like brown woody stems up to 100 feet long. Lavender flowers bloom June to September. Fruits are clustered, dry, flattened, bean pods.

Growth Characteristics:
Occurs along streams and roadsides. Forms dense mats over the ground, debris, shrubs and trees. Can kill a tree by blocking out all sunlight.

Did You Know?
Found throughout the southeast. More common in northern Florida than southern Florida.



Queenland umbrella tree
Schefflera actinophylla

Identifying Characteristics:
Evergreen tree to 40 feet tall. Leaves up to 2 feet long, shiny, palm-like shape. Red flowers appear in dense clusters above foliage.

Growth Characteristics:
Found in a variety of habitats, from cypress swamps to sand pine scrub. Can be found growing as seedlings in the boots of cabbage palms (similar to strangler figs).

Did You Know?
Introduced in 1927 for use as an indoor house plant and outdoor landscaping.



2. Water Efficiently

*Water only when needed.
Efficient watering
conserves water and
reduces runoff.*

Decisions can ensure that
a minimum amount of
water is used and that
waste is reduced.



Water Efficiently- Micro irrigation



**Standard Spray Heads-
Higher Water Usage**



**Lower Water Usage with Micro
irrigation
FFL Demo Plot- Manatee
County**

*Planting for different irrigation zones
High, medium and low water usage*

Water efficiently- follow water restrictions

3/7/2011

Year-Round Landscape Irrigation Cons...

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[Topics](#) | [Regions](#)

Home >> Managing and Protecting Water >> Water Conservation >> YEAR-ROUND LANDSCAPE IRRIGATION CONSERVATION MEASURES



Year-round landscape irrigation conservation is a key strategy to conserve water and reduce water bills. It is a conservation strategy that allows you to use water efficiently and responsibly. It is a conservation strategy that allows you to use water efficiently and responsibly. It is a conservation strategy that allows you to use water efficiently and responsibly.

- Eric RUMBLE, SFWMD Governing Board Chairman

Year-Round Conservation Measures

[LATEST VERSION](#) | [LATEST VERSION](#)

[Feb 07, 2011](#) | [12.02.11](#)

[Feb 07, 2011](#) | [08.07](#)

RELATED LINKS

- ▶ Frequently Asked Questions about Year-Round Measures [PDF]
- ▶ Just the Facts [PDF]
- ▶ Map [PDF]
- ▶ Comprehensive Water Conservation Program [PDF, 20MB]
- ▶ Florida-Friendly Landscaping
- ▶ Ways You Can Save Water
- ▶ Agriculture – Water Conservation
- ▶ Water Shortage Watch
- ▶ County and City Enforcement Contacts [PDF]

The Year-Round Conservation Measures Landscape Irrigation rule establishes a two-day-a-week landscape watering schedule throughout the District, with a three-day-a-week provision for users in some counties. In all cases, re-use water used for irrigation is exempt from restrictions. With little recent rainfall, and forecasts for continuing dry conditions, water conservation is even more important.

IMPORTANT: Local governments may adopt alternative landscape irrigation ordinances based on local water demands, system limitations or resource availability. Several counties and cities have exercised this option so residents should always check local ordinances for watering days and times.

When local ordinances apply, a link to the county or city Website is provided below. Click on a county below for current landscape irrigation limits:

- ▶ Broward County
- ▶ Charlotte County »
- ▶ Collier County
- ▶ Glades County
- ▶ Hendry County
- ▶ Highlands County »
- ▶ Lee County »
- ▶ Martin County »
- ▶ Miami-Dade County
- ▶ Monroe County
- ▶ Okeechobee County »
- ▶ Orange County »
- ▶ Osceola County »
- ▶ Palm Beach County
- ▶ Polk County »
- ▶ St. Lucie County

Use the Forms Listed Below to Request an ALTERNATIVE Irrigation Schedule

- ▶ Guidance for Seeking an Alternative Irrigation Schedule from the South Florida Water Management District [PDF]
- ▶ Guidance for Completing a Letter Modification Pursuant to Rules 40E-2.331(4)(a)(6) & 40E-20.331(3)(a)(6) [PDF]
- ▶ Water Use Permit Letter Modification Request for the Mandatory Year-Round Landscape Irrigation Conservation Measures [PDF]

Review the actual rule language contained in Chapter 40E-24 of the Florida Administrative Code (Mandatory Year-Round Landscape Irrigation Measures for South Florida). Click on the "Latest Version" tabs to the right of each section.

[Background on Year-Round Conservation Measures »](#)

In the News

- ▶ Dry Conditions Resume in February (Mar 03)
 - ▶ Lee County Students Craft Water Conservation Art (Feb 17)
 - ▶ Wet January Welcome but Water Storage Concerns Remain (Feb 07)
 - ▶ Jupiter Jubilee Encourages Conservation (Feb 03)
 - ▶ SFWMD Offering Training for Prospective Florida Water Star Certified (Jan 21)
- [NEWS ARCHIVE](#)

Online ePermitting Services

[LEARN MORE »](#)

Upcoming Events

- ▶ Regulatory Peer Review Forum
- ▶ Rain Barrel Workshops - by Miami-Dade County Cooperative Extension Service
- ▶ WRAC Meetings, Agendas and more
- ▶ Monthly Regulatory Meetings

[CALENDAR](#)





Related Contacts

- ▶ [Contact Us Email »](#)
- ▶ [Water Conservation Hotline \(800\) 662-8676](#)

WWW.SFWMD.GOV/2DAYS

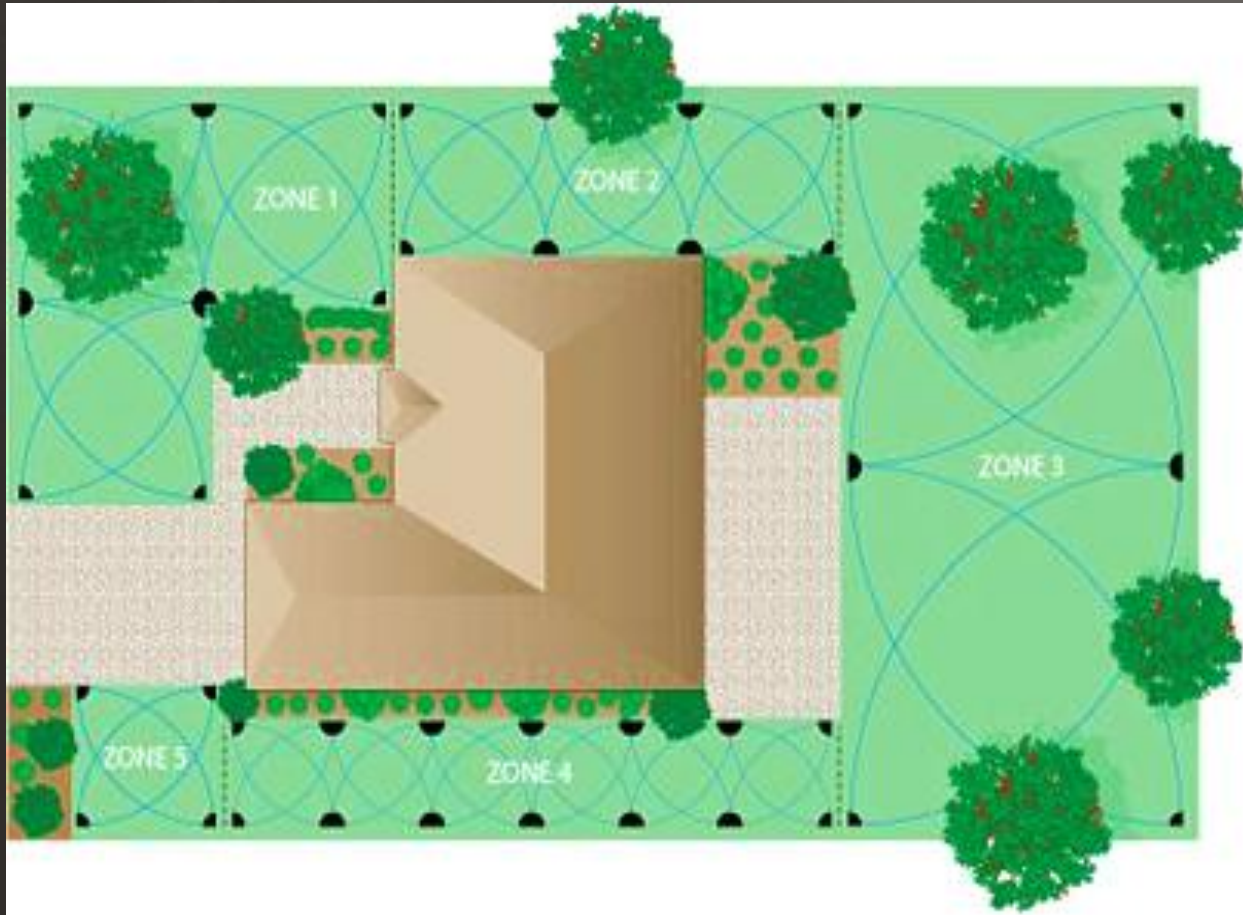
Water Efficient-Plant Selection Tool

The Florida-Friendly Landscaping™ Guide to Plant Selection & Landscape Design

			
Scientific Common <i>Quercus shumardii</i> Shumard Oak	<i>Quercus virginiana</i> Live Oak	<i>Simarouba glauca</i> Paradise Tree	<i>Swietenia mahagoni</i> West Indian Mahogany
Reg/Native N 8-9a Yes	N C S 8b-10b Yes	S 10b-11 Yes	S 10b-11 Yes
G, H, S 55-80↑ 40-50⇒	40-80↑ 60-120⇒	30-50↑ 25-30⇒	Fast 40-75↑ 40-60⇒
Soil pH, Txt ●●●○ Any	●●●○ Any	●●●● Any	●●●● Any
Soil Mst, Drgt ☹️ High	☹️ High	☹️ Medium	☹️ High
Light/Best Salt ☀️ M	☀️ ☁️ H	☀️ ☁️ H	☀️ ☁️ H
Wildlife 🦋 🐦	🦋 🐦	🐦	🐦
provides food for wildlife; tolerates occasionally wet soil; medium to high wind resistance	provides food for wildlife; not for small lots; susceptible to caterpillars, root rot and insect galls; tolerates occasionally wet soil; high wind resistance	yellow, summer flowers; medium to high wind resistance; don't plant near sidewalks and driveways (surface roots)	medium to high wind resistance; tolerates occasionally wet soil; susceptible to webworms



Water Efficiently



Residential property showing different irrigation zones based upon plant type and need. *Courtesy of St. Johns Water Management District*

Water Efficiently - Tool

Rain shut-off valves



Water plants only – at the right time

⦿ Not:

- Side of the house
- Street
- Driveway
- Sidewalk

⦿ Not:

- In the middle of the day
- In the rain

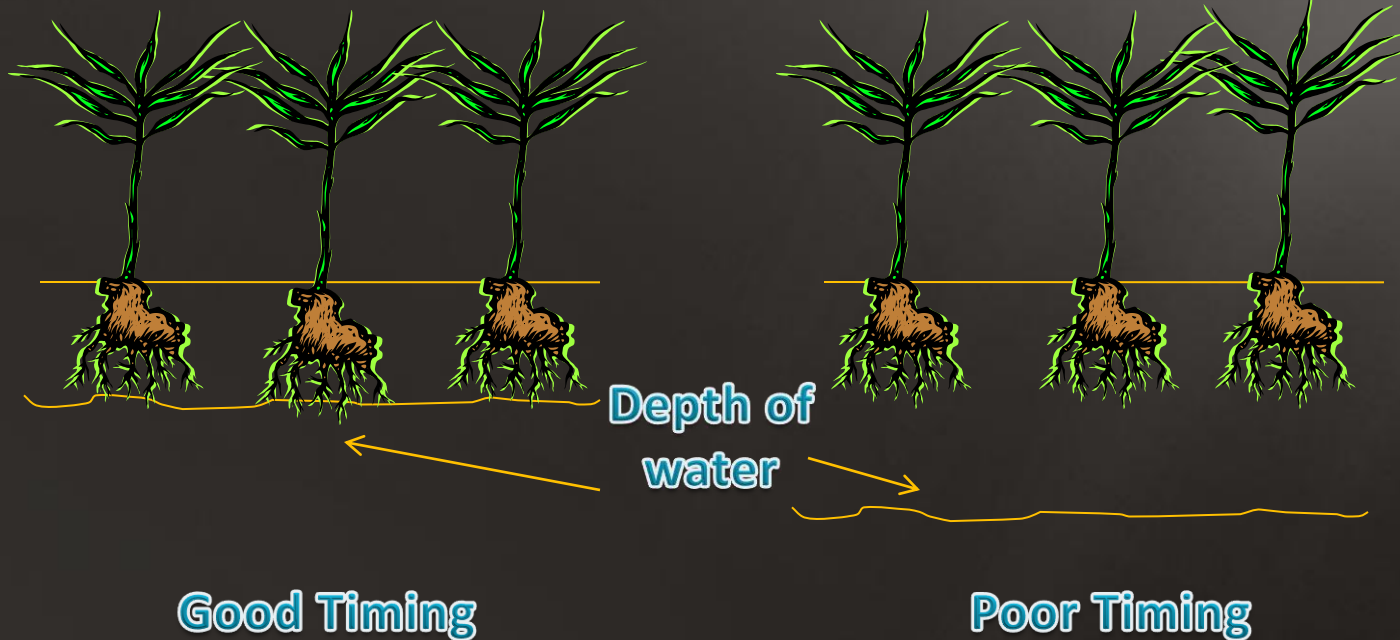


Water efficiently

$\frac{1}{2}$ " – $\frac{3}{4}$ " maximum – waters 8-9" depth

Efficient

Not efficient

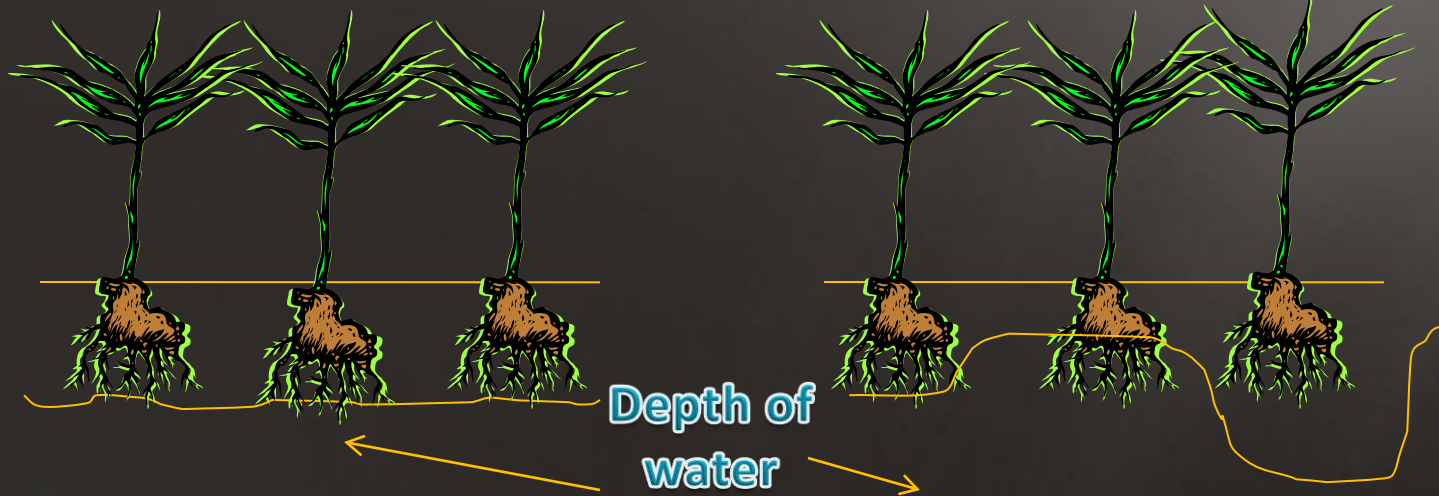


Water efficiently

$\frac{1}{2}$ " – $\frac{3}{4}$ " maximum

Efficient

Not efficient



Good Coverage

Poor Coverage

Water efficiently- Calibrate irrigation

- ◎ Set out flat-bottomed cans (5-10) of equal diameter (3-6")
- ◎ In-ground: zone-by-zone
- ◎ Hose: line away from sprinkler
- ◎ Drip: Under drip heads
- ◎ Run 15 minutes
- ◎ Calibrate for $\frac{1}{2}$ " - $\frac{3}{4}$ " for lawns



CATCH CAN METHOD

Water efficiently-shut-off devices



Soil



Rain

3. Fertilize Appropriately

Fertilize Appropriately

More isn't always better. Fertilizer overuse can be harmful to a property and the environment

Ensure that the right fertilizer products are selected and applied appropriately to reduce their impact on the environment and discourage pests and diseases



Fertilizer - More is better, right?



Fertilize Appropriately

- *Think before you plant....*
 - *(i.e. planting palms that we cannot properly fertilize and maintain.)*
 - *Why create “temporary” landscapes?*
 - *What would a landscape look like without maintenance and fertilizer?*
 - *Design with minimal maintenance in mind*
 - *Know the 2% phosphorus “rule” – don’t exceed 2% P!*

Fertilize Appropriately

- Fertilization: Recognizing and treating deficiencies



Queen palms in decline due to nutritional deficiencies resulting in “frizzle top”

Fertilizer Runoff

- Creates algal blooms → eutrophication
- Depletes the oxygen for fish and other species
- Effectively suffocates them
- Never fertilize within 10' of a water body



Fertilize appropriately

- Are fertilizers needed?
 - Using reclaimed water?
 - Soil tests
 - Visual signs
 - Stage of plant's life
 - Plant's specific nutritional tendencies



Fertilize appropriately

◎ The use of too much or improper fertilizer can:

- Create nutritional deficiencies
- Affect fruiting & flowering
- Stimulate excessive growth
- Encourage development of pest & disease problems
- Increase watering needs
- Increase plant stress
- Runoff properties and pollute waterways
- Waste money



Nitrogen forces root & shoot growth!

Fertilize appropriately:

- Keep products on site:
 - Clean up spills
 - Avoid applying to hard surfaces
- Don't fertilize before a heavy rain
- Apply when lawn is actively growing
- Avoid weed & feed
- Use broadcast spreader with deflector shield
- Use iron to “green-up” lawn in summer



Fertilize Appropriately

Fertilizer Guideline for Established Turfgrass Lawns in Florida

Nitrogen Recommendations (lbs N / 1000 sq. ft. / year)

Species	North	Central	South
Bahia	2-3	2-4	2-4
Bermuda	3-5	4-6	5-7
Centipede	1-2	2-3	2-3
St. Augustine	2-4	2-5	4-6
Zoysia	3-5	3-6	4-6

Adapted from Florida-Friendly™ Best Management Practices for Protection of Water Resources by the Green Industries

Fertilize Appropriately- Reclaimed Water

$$\frac{\text{lb N}}{1000 \text{ ft}^2} = \text{depth of irrigation water (inches)} \times \text{N concentration (mg/L or ppm)} \times 0.0052$$

N Conc. in R.W.(mg /L N or ppm N)	<u>Nitrogen Applied (lb N per 1000 square feet)</u>							
	Inches of Reclaimed Water Applied for Irrigation							
	1	5	10	20	30	50	100	150
1.0	<0.1	<0.1	0.1	0.1	0.2	0.3	0.5	0.8
2.0	<0.1	0.1	0.1	0.2	0.3	0.5	1.0	1.6
3.0	<0.1	0.1	0.2	0.3	0.5	0.8	1.6	2.3
5.0	<0.1	0.2	0.3	0.5	0.8	1.3	2.6	3.9
10.0	0.1	0.3	0.5	1.0	1.6	2.6	5.2	7.8
20.0	0.1	0.5	1.0	2.1	3.1	5.2	10.4	15.6
30.0	0.2	0.8	1.6	3.1	4.7	7.8	15.6	23.4

*0.0052 is used to convert from units of inches and mg/L or ppm to units of pounds per 1000 square feet

4. Mulch

Mulching reduces weeds, helps soil retain moisture and builds soil organic matter

Ensure that mulch is used and applied appropriately and that sustainable mulch products like melaleuca mulch are selected



Mulch – Protecting Trees



No Volcanoes!!

Mulch – Self Mulching



Mulch – Protecting Trees

Maintain Tree Circles: Avoid mechanical damage from mowers and weed eaters



Mulch – Protecting Trees



Repeatedly hitting a tree with a lawn mower or weed whacker may cause irreversible damage

Weed whackers and lawnmowers that hit tree trunks week after week cause irreversible damage

Mulch benefits

- Buffers soil temperature
- Prevent water loss from evaporation
- Controls weeds
- Protects plants
- Can improve soil
- May reduce erosion
- Aesthetics



Types of mulch

- ◎ Recycled
- ◎ Eucalyptus
- ◎ Melaleuca
- ◎ Recycled yard waste
- ◎ Pebbles / stones
- ◎ Cypress
- ◎ Pine Bark*
- ◎ Pine Straw*
- ◎ Non-organic



Mulch application

- Avoid volcano mulch
- Use 2-3" & mulch to the dripline or further



Mulch Volcano - BAD



Proper Mulching



5. Attract Wildlife

Plants that provide food, water, and shelter can attract and conserve Florida's diverse wildlife

Encourage the use of vegetation to attract wildlife to enhance the enjoyment of residents and increase the community's connection with nature



Tips for Creating Wildlife Habitat

- Limit the amount of lawn
- Increase vertical layering
- Reduce pesticide use
- Expand the scale of habitat



Tips for Creating Wildlife Habitat

- Provide snags and brush piles
- Provide water
- Plant native vegetation
- Provide bird/bat houses and bird feeders



Bats

- ◎ Can eat thousands of pest insects in one night- provide well over \$3 billion in value to agriculture in the US annually
- ◎ In Palm Beach County: \$29,752,928.00
- ◎ Pollinate flowering plants and fruit trees
- ◎ In the wild, important agricultural plants such as bananas, mangos, cashews, and dates, rely on bats for pollination and seed dispersal



USGS

Bat houses



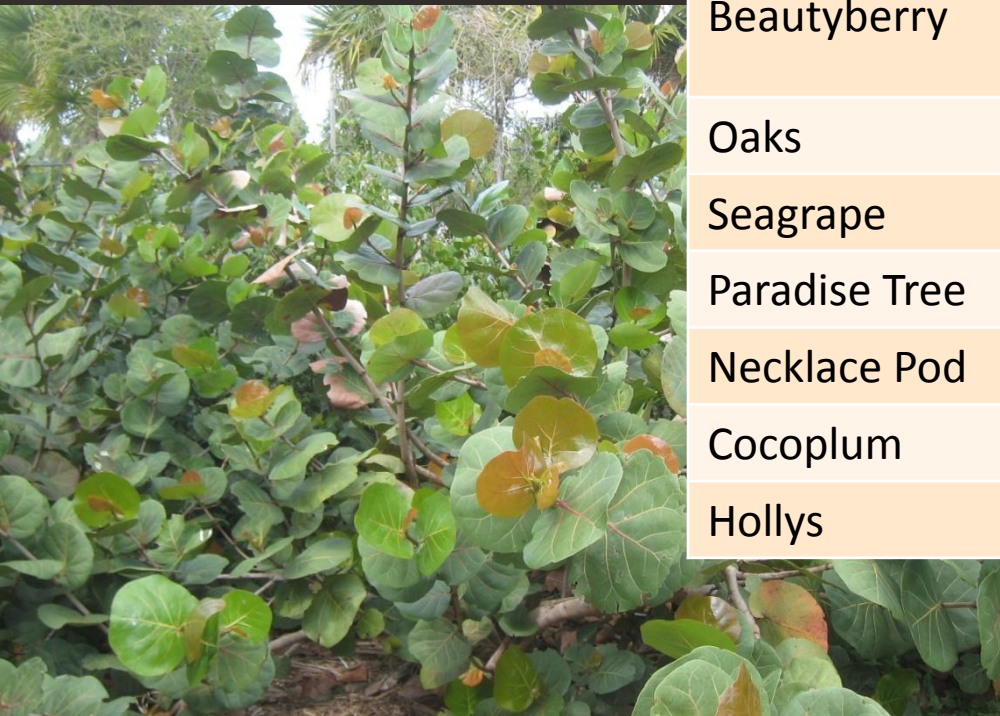
- 14" wide x 24" tall
- Watertight but not airtight
- Rough landing surface (grooves / mesh)
- Plywood or cedar (no pressure-treated wood)
- Light-colored in full sun
- Mounted 12' above ground



Adapted from "Effective Bat Houses for Florida" [EDIS Publication #WEC246]:
<http://edis.ifas.ufl.edu/uw290>

birds

- ◎ Attracted to tree canopy combined with shrubs and understory plantings
- ◎ Use plants with berries, seeds, and fruits



Beautyberry	<i>Callicarpa americana</i>
Oaks	<i>Quercus spp.</i>
Seagrape	<i>Coccoloba uvifera</i>
Paradise Tree	<i>Simarouba glauca</i>
Necklace Pod	<i>Sophora tomentosa</i>
Cocoplum	<i>Chrysobalanus icaco</i>
Hollies	<i>Ilex spp.</i>

Butterflies- host plants



Common Name	Scientific Name	Butterfly
Sennas	<i>Senna spp.</i>	Sulfers
Passionflower	<i>Passiflora spp.</i>	Gulf Fritillary, Zebra Heliconian, Variegated Fritillary
Wild Coffee	<i>Psychotria nervosa</i>	
Parley, Dill, and Fennel		Black Swallowtail
Coontie	<i>Zamia floridana</i>	Atala Hairstreak
Jamaica Dogwood	<i>Piscidia erythrina</i>	Fulvous hairstreak, Hammock skipper



Butterflies- nectar plants



Common name	Scientific name	Flower time
Geiger Tree	<i>Cordia sebestena</i>	Summer-winter
Firebush	<i>Hamelia patens</i>	Year round
Wild Coffee	<i>Psychotria nervosa</i>	Spring
Necklace pod	<i>Sophora tomentosa</i>	Summer-winter
Beach Sunflower	<i>Helianthus debilis</i>	Year round
Blue porterweed	<i>Stachytarpheta jamaicensis</i>	Spring



6. Manage Yard Pests Responsibly

Implement an Integrated Pest Management (IPM) Program to safely manage pests in the landscape

Effective IPM will allow property owners and managers to reduce pest control costs and maintain healthier landscapes



How many of the United State's insects are considered pests?

0.6 %




Manage yard pests responsibly

- ◎ Right Plant, Right Place- think about it first!
- ◎ Avoid fertilizing and watering in excess
- ◎ Start early
- ◎ Conduct regular scouting
- ◎ Keep plants healthy
- ◎ Use the least toxic method that will do the job – cultural, biological, physical, chemical
- ◎ Encourage beneficial insects



MANAGE YARD PESTS RESPONSIBLY

1. Observe the landscape
 2. Identify insects correctly
 3. Select the most sustainable control method
 4. Prevent future problems
 5. Use integrated methods and monitor
- 

Manage yard pests responsibly-
identify insects correctly

Proper identification of the
problem is critical to
successfully managing it!



7. Reduce Yard Waste

Leaving grass clippings, leaves, and compost on-site returns nutrients to plants and reduces waste
“Leaf litter is free fertilizer”

Encourage the use of landscape waste to save money and increase the health of plants



Reduce Yard Waste

- Planting plants that are slow growing and can reach their right size when planted in right place
 - Less pruning means less yard waste
 - Chose species that do not have heavy leaf litter
 - Wild Tamarind, Stoppers, Bridalveil vs. Calophyllum, Seagrape, Magnolia, Black Olive
- Placement site to hold or store landscape waste to be converted to composting

Reduce Yard Waste

Invoice

Date

5/31/2012

Invoice #

11714

Terms

Due upon receipt.

Bill To

Ship To

Q	Description	Rate	Amount
11	5/10/12 Disposal pick up and haulage to dump facility 11 yards	16.00	176.00

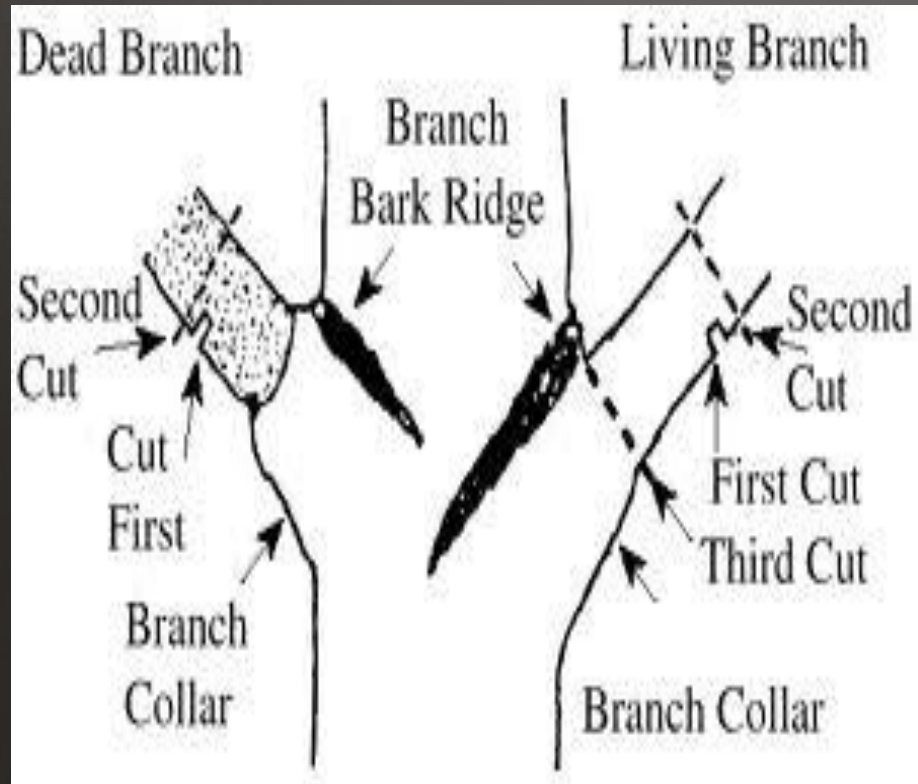
Recycle yard waste: reduce pruning needs

- Slow-growing plants
- Natural look
- Right plant, right place- let plants reach full size



Recycle yard waste: pruning

- ◎ Keep plants healthy
- ◎ Keep tools clean:
alcohol or bleach
solution
- ◎ Prune properly to
keep pruning
minimal
- ◎ Remove:
 - Dead, diseased &
injured branches
 - Crossing/rubbing
branches
- ◎ Hire arborist if
necessary





Recycle yard waste: mowing

- Grass clippings are made of nutrients and water
- Free fertilizer!



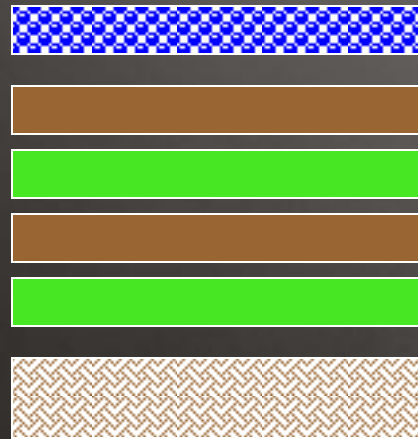
Recycle yard waste: Composting

- Provides nutrients and organic matter to plants
- Improves your soil
- Recycles yard and food wastes naturally
- Reduces what goes into your garbage (20%)



Recycle yard waste: Composting

Food +
Oxygen +
Moisture +
Temperature



122-131° F IDEAL

131-140 ° F KILLS WEEDS & PATHOGENS

ABOVE 140 ° F DETRIMENTAL TO
COMPOSTING ORGANISMS

Recycle yard waste: Composting

- ⦿ Leaves
- ⦿ Twigs and branches
- ⦿ Shredded newspaper and cardboard
- ⦿ Shredded junk mail (!)
- ⦿ Coffee grounds and filters
- ⦿ Wood chips
- ⦿ Pine needles
- ⦿ Dryer lint
- ⦿ Paper towels



- ⦿ Grass clippings
- ⦿ Plant trimmings
- ⦿ Eggshells
- ⦿ Weeds (!)
- ⦿ Fruit and vegetable scraps
- ⦿ Plant trimmings

No animal products or toxic chemicals!

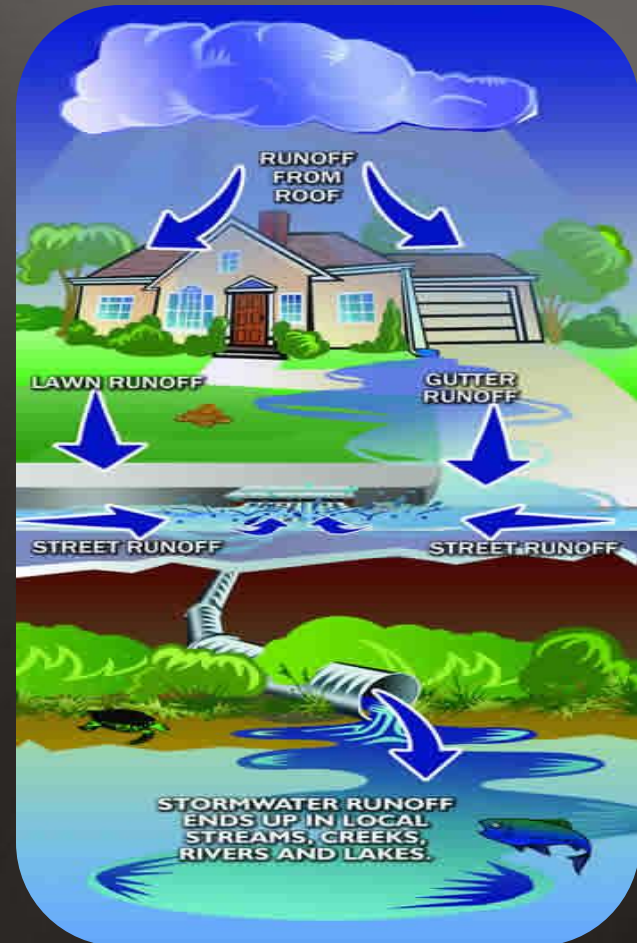
Brown material (Carbon)

Green material (Nitrogen)

8. Reduce Stormwater Runoff

Water that runs off lawn and pavement carries pesticides, fertilizers, and harmful substances that contribute to nonpoint source pollution

Use pervious surfaces, rain barrels, swales, and berms to reduce erosion, reduce pollution and keep water onsite



Reduce stormwater runoff

- Pervious surfaces
 - Filter pollutants, slows runoff
- Swales & Berms
 - Divert water & slow runoff
- Raingardens
 - Plants filter water and slow entrance into ground
 - Locate near paved surfaces or below drain spouts
- Stormwater Harvesting – Rain Barrels



Reduce Stormwater Runoff - Stormwater Harvesting



Reduce stormwater runoff

- Pervious surfaces
- Swales & Berms
 - Divert water & slow runoff



keep the water!- raingardens

- “An occasional pond”
- Plants filter water and slow entrance into ground
- Can be placed near paved surfaces or below drainspouts
- Choose plants that can adapt to changing moisture levels



Reduce Stormwater Runoff



keep the water!- swales & berms

- Divert water & slow runoff
- Buy time before water soaks into ground



keep the water!- rain barrels & downspouts

- Use downspouts to divert water to porous surfaces or rain barrels
- Use rainbarrels to store water for drier times



keep the water!- porous surfaces

- Mulch
- Bricks
- Gravel
- Porous concrete
- Filter pollutants from water before it enters ground
- Slows runoff



9. Protect the Waterfront

Waterfront property is fragile and should be protected from pollution

Ensure that waterfronts are protected for the enjoyment of all



Protect the waterfront

- ◎ 10-foot wide maintenance-free zone
 - Don't mow or apply fertilizer or pesticides
- ◎ Shoreline vegetation / buffer zone
- ◎ Sea walls, large stones
- ◎ Contain grass clippings and pet waste



Protect the waterfront

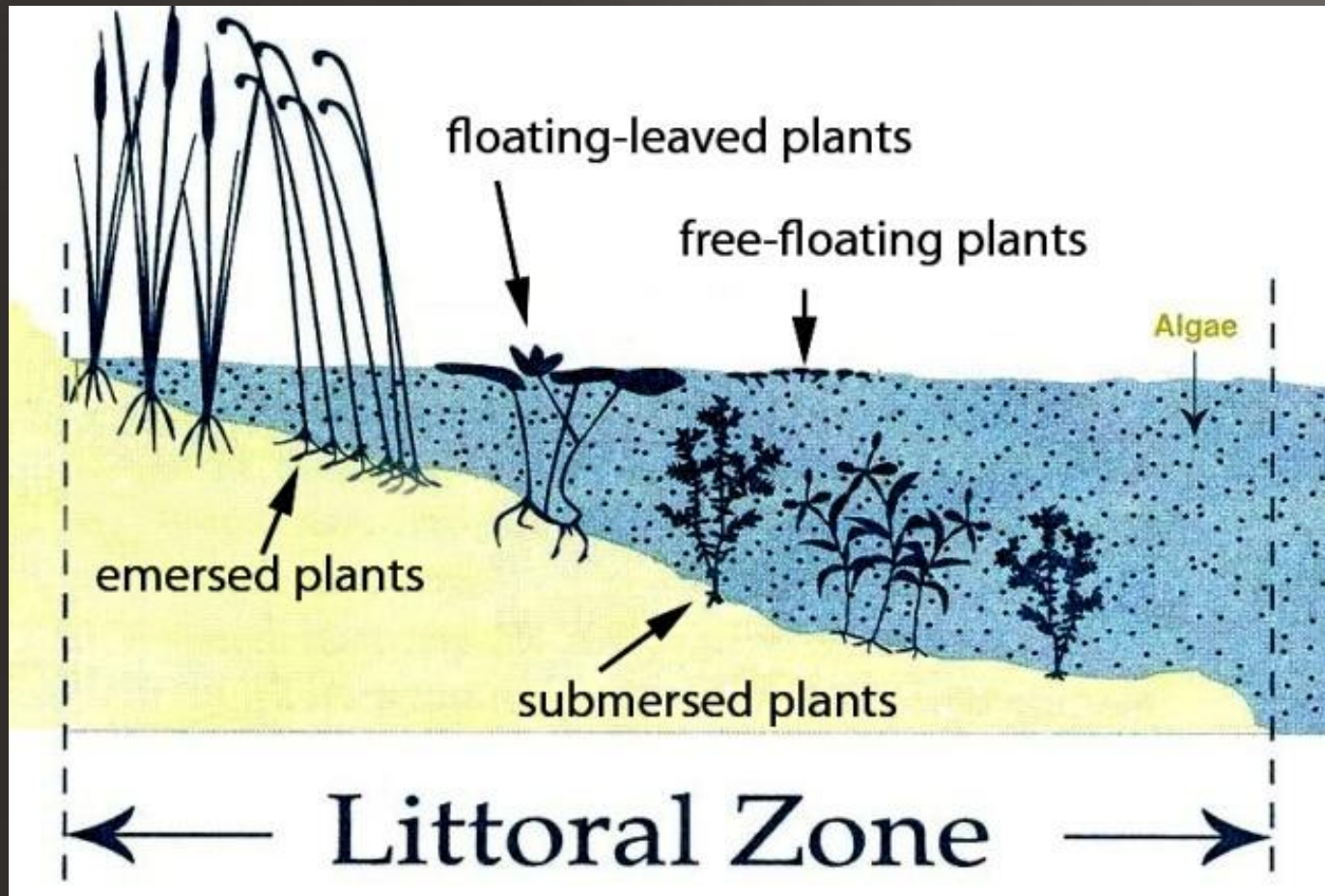
- The land we live on is directly connected to water
- Surface water eventually ends up here

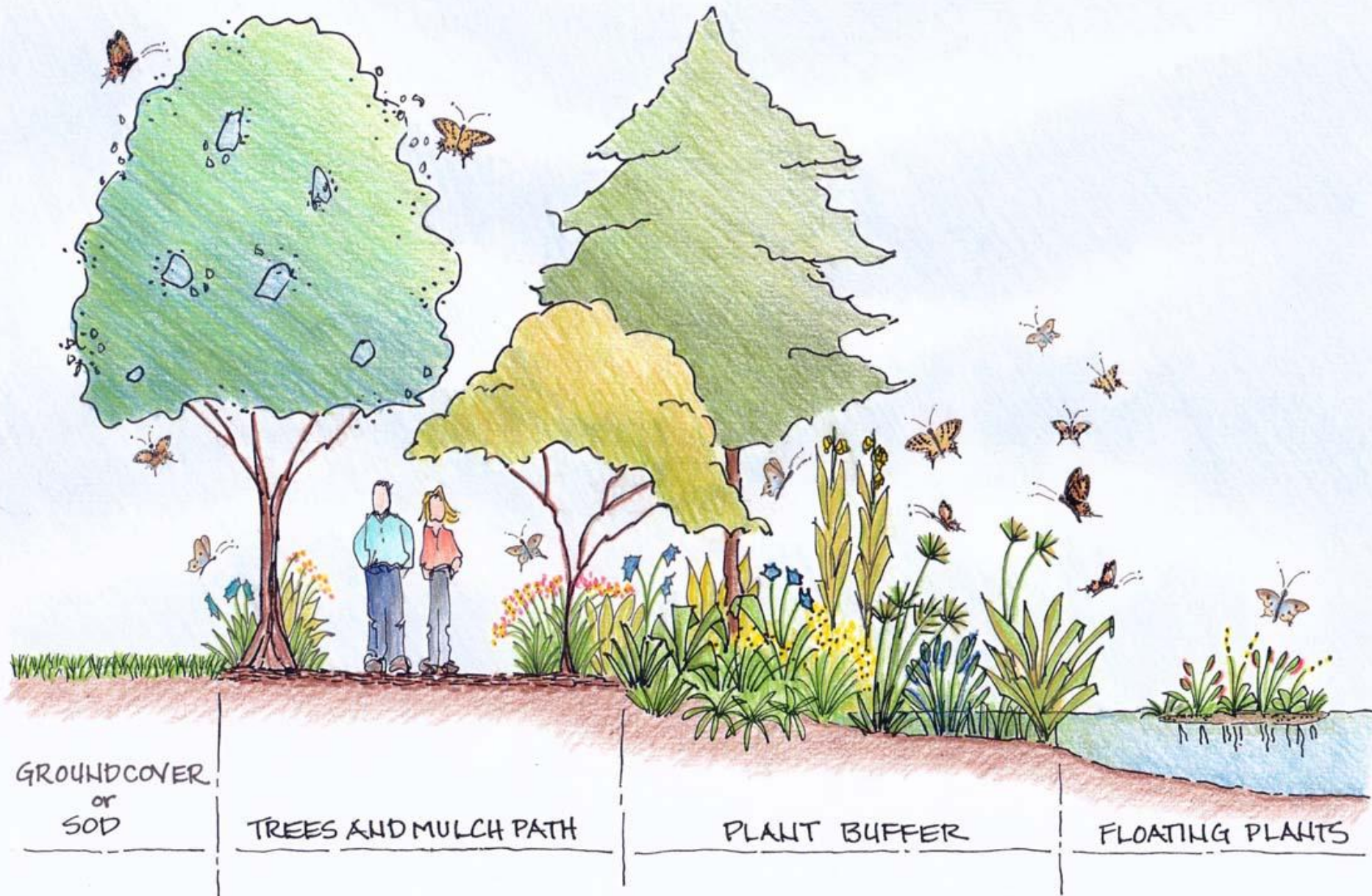


Protect the Waterfront



Protect the Waterfront—Littoralal





Protect the waterfront

- Stormwater ponds and canals
 - Improve water quality
 - Manage stormwater
 - Prevent flooding
 - Serve as habitat for wildlife

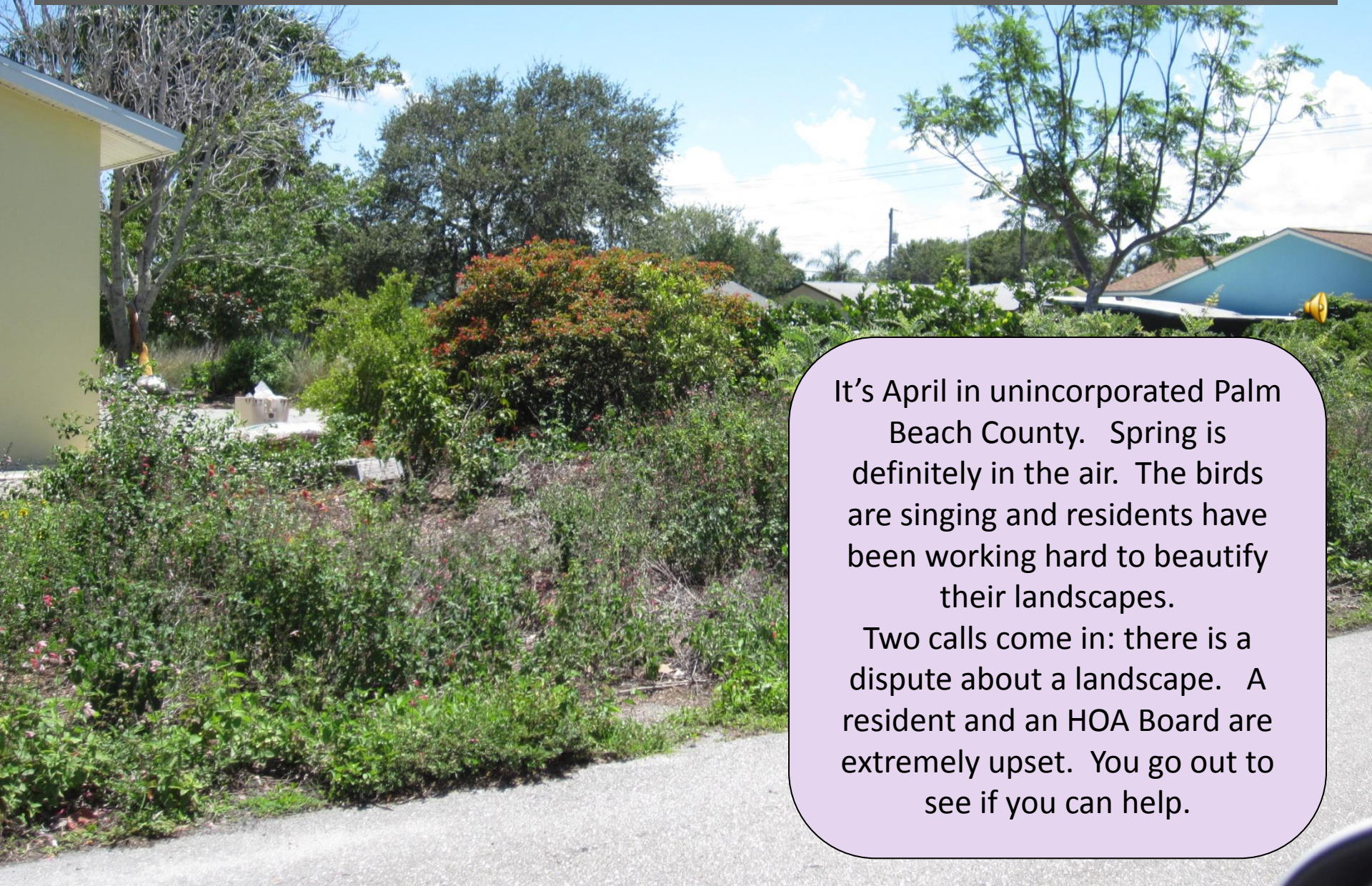


Florida Statutes section 373.185:
“quality landscapes that conserve
water, protect the environment, are
adaptable to local conditions and
are drought tolerant.”

Scenario #1

A concern somewhere in Palm Beach County

A Home in Shady Swamp HOA



It's April in unincorporated Palm Beach County. Spring is definitely in the air. The birds are singing and residents have been working hard to beautify their landscapes.

Two calls come in: there is a dispute about a landscape. A resident and an HOA Board are extremely upset. You go out to see if you can help.

Resident #1

I received a citation from these idiots after I ripped out my lawn and installed natives. Natives are so much better for the environment than sod is. I'm just trying to do the right thing to be "green". My natives attract butterflies and don't require any irrigation. Since I've installed my Florida-Friendly landscape, I've saved hundreds of gallons of water and lots of money on my water bill.

The additional shade the house receives has even decreased my utility bill. This is really important to me as summer gets closer. The Florida Friendly Statutes allow me as a homeowner to remove sod and install Florida-Friendly plants regardless of HOA approval, right? Can you help me to get them off my back?



Volunteer HOA board for Shady Swamp HOA



We're the volunteer HOA board for Shady Swamp HOA. We'd like to think we have a certain look that makes our community special. That lady is always causing trouble. She's using the Florida-Friendly legislation to justify a landscape that is inconsistent with the neighborhood norm. Is she right? Is there anything we can do to prevent this in the future?

What would you do?

Is there any more information that you need?

What do you tell the resident?

Who is right?

Is there anything the HOA can do to prevent this in the future?

Under Florida-Friendly Statutes:

- HOA documents are really important in making the call!
- Communities can still require compliance with community aesthetics
- HOA approval may still be required for homeowners to remove sod and install Florida-Friendly plants if HOA documents state an approval process
- No minimum landscape plant vs. turf amounts

Scenario #2

A concern somewhere in Palm Beach County

A Property in St. Augustine Hills HOA



It's early December, 2015 in Palm Beach County, FL. The weather has been cold and dry and water restrictions are in effect. The day is cloudy and gloomy, and a call comes in to the Master Gardener help desk.

St. Augustine Hills Resident

I'm sorry to bother you, but I really need some help. My HOA president has sent me a warning that if I don't green up my grass within 10 days, he is going to increase my irrigation frequency to daily watering and send the community's landscape company out to fertilize at my expense. I water my lawn two days per week, as specified by our water restrictions. My husband & I fertilize our lawn according to the University of Florida recommendations, and we apply six pounds of nitrogen per every 1000 square feet, which is the maximum amount recommended. I'm concerned about the HOA applying even more than that and I'm not sure that their landscape company is even properly certified to do the job.

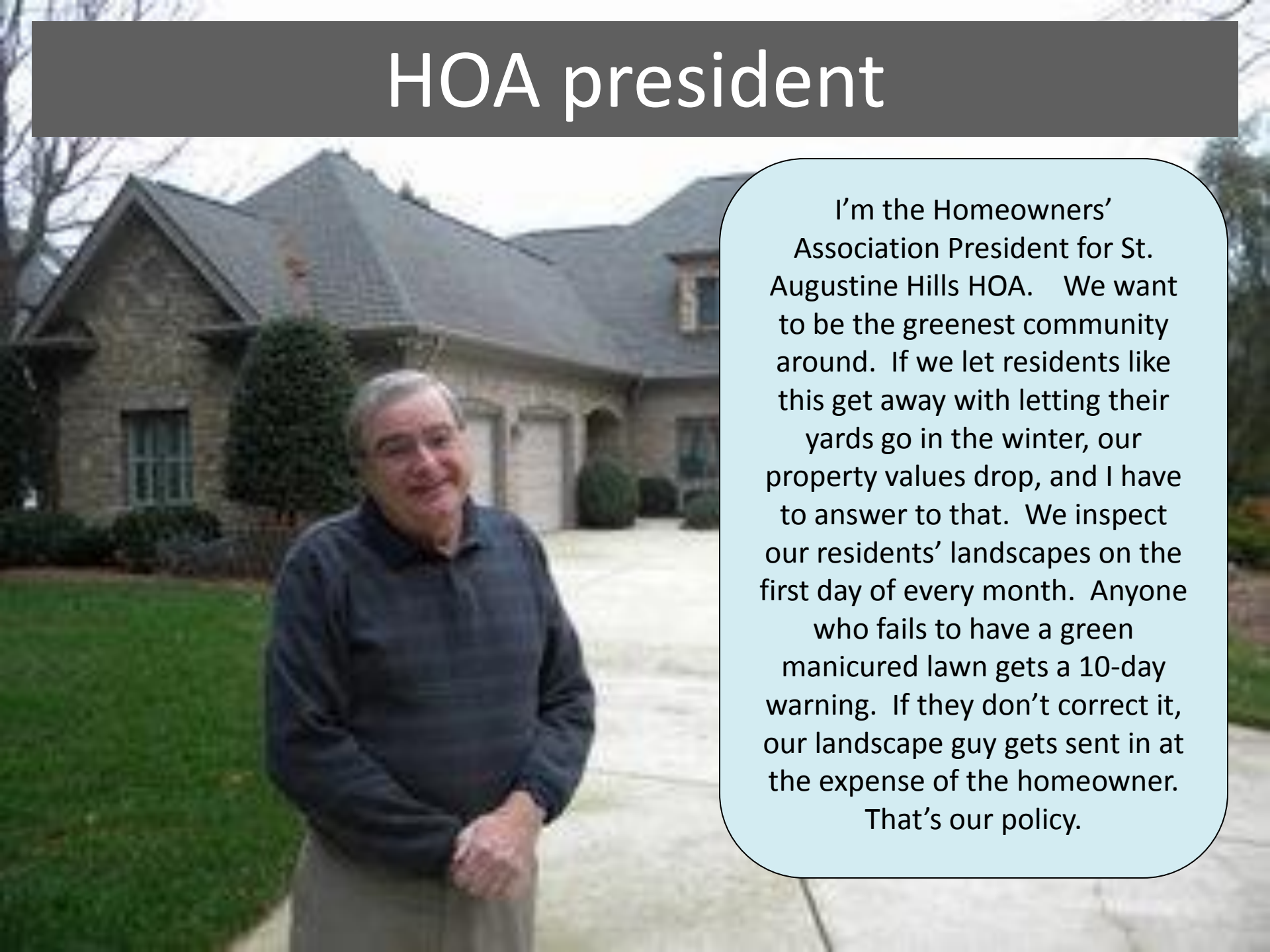


Small business landscaper in Palm Beach County



I'm the manager of a small landscape company, and St. Augustine Hills is my biggest account. In my business, the customer is always right. Our industry isn't really regulated, so we just do what we should and stay out of the way. I understand that I may need to go adjust the irrigation and fertilize that property over there if they don't do anything about it.

HOA president

A woman with short grey hair, wearing a dark blue long-sleeved shirt and light-colored pants, stands on a paved walkway in front of a large, two-story stone house with a grey roof. The house has a prominent gable and a driveway. The background shows a green lawn and some trees.

I'm the Homeowners' Association President for St. Augustine Hills HOA. We want to be the greenest community around. If we let residents like this get away with letting their yards go in the winter, our property values drop, and I have to answer to that. We inspect our residents' landscapes on the first day of every month. Anyone who fails to have a green manicured lawn gets a 10-day warning. If they don't correct it, our landscape guy gets sent in at the expense of the homeowner. That's our policy.

What would you do?

Is there any more information that you need?

What does the landscaper need to have to be qualified to apply fertilizer?

Who is in the right here? The resident or the HOA president?

Under Florida-Friendly Statutes:

- HOAs cannot require residents to keep turf green year-round.
- Dormant turfgrass slows or stops growing & will turn a lighter shade of green to brown.
Dormant turfgrass cannot utilize fertilizer, meaning that any applied product will likely end up in water bodies

Under Florida-Friendly Statutes:

- By 2014: Limited Certification for Urban Landscape Commercial Fertilizer Application from the Florida Department of Agriculture and Consumer Services (FDACS)
- To address residents who use legislation to justify landscapes that don't fit the norm, HOAs can adopt guideline to address these issues & define aesthetics

Florida-Friendly Landscaping™



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- Community Association Kit

Resources

GI-BMP Certification List

GI-BMP Training Snapshot

Certified Professionals			Certified Instructors		
13,466			230		
Alachua	Desoto	Hendry	Lewy	Osceola	Suwannee
Baker	Dixie	Hernando	Liberty	Palm Beach	Taylor
Bay	Duval	Highlands	Madison	Pasco	Union
Bradford	Escambia	Hillsborough	Manatee	Pinellas	Volusia
Brevard	Flagler	Holmes	Marion	Polk	Wakulla
Broward	Franklin	Indian River	Martin	Putnam	Walton
Calhoun	Gadsden	Jackson	Miami-Dade	Santa Rosa	Washington
Charlotte	Gilchrist	Jefferson	Monroe	Sarasota	Outside FL
Citrus	Glades	Lafayette	Nassau	Seminole	
Clay	Gulf	Lake	Okaloosa	St. Johns	
Collier	Hamilton	Lee	Okeechobee	St. Lucie	
Columbia	Hardee	Leon	Orange	Sumter	

Individuals who have successfully completed the GI-BMP training class are listed below by county, based on the work address provided, or other mailing address if work address was

Additional Florida-Friendly Recommendations

- The GI-BMP program and mandatory certification of every employee by 2014 is enforced by FDACS
- 10' waterfront maintenance-free zone
- Irrigate with $\frac{1}{2}$ " – $\frac{3}{4}$ " of water
- Communities cannot require:
 - Excessive use of fertilizers and pesticides, wrong plant or wrong place, violation of water restrictions,



PRACTICE AREAS

- ▶ [Contract Law](#)
- ▶ [Corporate Law](#)
- ▶ [Estate Planning](#)
- ▶ [Family Law](#)
- ▶ [Landlord / Tenant Law](#)
- ▶ [Personal Injury](#)
- ▶ [Real Estate Law](#)

FREE CASE REVIEW

First Name *

Last Name *

Phone *

Email *

How can we help? *

FLORIDA-FRIENDLY LANDSCAPING & THE NOT SO FRIENDLY HOMEOWNERS' ASSOCIATION

Published on Fri, 10/12/2012 - 09:23

Florida-friendly landscaping and the not so Friendly Homeowner's Association

The Florida legislature passed a law in the early 2000s and in 2009 with the goal of encouraging homeowners and community associations to cultivate landscapes that don't require pampering with sprinklers and chemicals. These lawns are referred to as "Florida-friendly" lawns or landscaping.

Florida-friendly landscaping is defined by Florida law as: quality landscapes that conserve water, protect the environment, are adaptable to local conditions, and are drought tolerant. The principles of such landscaping include planting the right plants in the right place, efficient watering, appropriate fertilization, mulching, attraction of wildlife, responsible management of yard pests, recycling yard waste, reduction of storm-water runoff, and waterfront protection. Additional components include practices such as landscape planning and design, soil analysis, the appropriate use of solid waste compost, minimizing the use of irrigation, and proper maintenance.

St. Augustine grass is usually the grass of choice for most homeowners associations and is usually a requirement. As most homeowners are aware of St.

Living with Rules



Homeowner sued by HOA for using artificial turf



What to do when your board accuses you of violating a rule?

July 27, 2010 | Daniel Vasquez on condos, Sun Sentinel Columnist

Lesia DeFelice spent seven years landscaping her Deerfield Beach [home](#) with lush trees, plants and small patches of fake grass to make it environmentally-friendly and allergy-free - a popular water-conserving process called "xeriscaping" that is encouraged by the state of Florida.

The effort, however, has landed her in court facing a lawsuit from her [homeowners association](#), which is demanding the artificial grass be removed.

f Recommend 0    

1  0
 Tweet Submit  +1

HOA Files Lawsuit For Florida Friendly Landscaping!

Posted on [August 5, 2012](#) | [8 Comments](#)



This picture is app. 4 months old. The landscaping looks even better now!

I have written several [articles](#) over the past year about this beautifully landscaped home in Duval County, but had my “fingers tied” for several months while negotiations and mediation was going on. I’m sorry to have to report that after months of quiet the couple in Jacksonville, FL has been served a lawsuit for their [Florida Friendly Landscaping \(FFL\)](#). Residing in the [Marsh Sound](#) community, this couple submitted their intentions to convert their yard to FFL landscaping in January, 2011, and, after not receiving a response within 30 days, as stated in the covenants and restrictions, they began installing new drought-tolerant plants after removing the dead St. Augustine grass.

[FREE Energy Tips](#)
**FOLLOW MY FAVORITE THINGS
ON PINTEREST**



**REAL ESTATE NEWS VIA
GREEN FLORIDA PROPERTIES**

- [Are Short Sales Coming To An End?](#)
- [2012 Housing Market Saw Biggest Gain in 7 Years!](#)
- [CNN Money Votes St. Augustine, FL Top Out Of Top 25 Places to Retire](#)
- [Study Shows Green Homes Sell For 9 More!](#)
- [Mortgage Rates Hit A New Record Low - 3.53%!](#)
- [Zillow: Home Values See Highest Monthly Increase Since 2006](#)
- [HERS Ratings Are Gaining Ground And New Building Standard](#)
- [Fed Renews Vow to Keep Interest Rates Low](#)

JUST LABEL IT

Home → Collections → **Bahia Grass**

Neighborhood association sues homeowner who has water-conserving yard

8:19 p.m. EST, October 5, 2012 |
By Kevin Spear, Orlando Sentinel

A homeowner near [Windermere](#) who happens to work for [Orange County's](#) environmental department has been sued by her neighborhood association for replacing her thirsty grass with a water-conserving landscape.

Renee Parker's plants attract butterflies, blossom regularly in multiple colors and have an assortment of shapes and heights. For a meandering border, she planted Argentine bahia, a grass that's hardier than the water-craving, fertilizer-loving St. Augustine variety commonly growing in Florida yards.

Ads By Google

 Recommend 141   

19  0
 Tweet   +1



"We are putting the right plants in the right place,"... (Stephen M. Dowell, Orlando...)

creating a safer environment for everyone.

To:

Marsh Sound HOA, Marsh Sound Board of Directors

I just signed the following petition addressed to: Marsh Sound HOA.

Dismiss the lawsuit against the homeowners with a Gold certified FFL yard.

Florida Statutes #373.185 gives homeowners the right to install drought tolerant landscaping using the 9 principles of Florida Friendly Landscaping. When the Board of Directors of a Homeowners' Association ignores or thinks they can pick and choose parts of the Statute they are not only doing a disservice to the community residents by wasting money on a lawsuit, they are ignoring the need to conserve water and reduce the amount of toxic chemicals from fertilizers and pesticides from entering into waterways that affect everyone. This is not just about homeowners' rights, it's about creating a safer environment for everyone.

Sincerely,

Sincerely,
[Your name]

Less ^

Sign this petition

with 113 supporters



87 NEEDED

[Outside U.S.?](#)

(Optional)

Sign >

Display my signature on Change.org

By signing, you accept Change.org's [terms of service](#) and [privacy policy](#).

Recent signatures

barbara witzel JACKSONVILLE, FL 23h

Laura Saxon MORRISTON, FL 9d

Supporters

How can someone get their landscape certified... whether it be a single family residence, commercial property, or multifamily community?



Volunteer yard advisors conduct evaluations for UF/IFAS Palm Beach County and determine if a landscape meets the criteria. This is a great learning opportunity and source of pride for your customer!

How can someone get their landscape certified?

Required Practices for Standard Level

- No code violations
- No prohibited plants
- At least 5 species of plants
- Grass clippings left on lawn



How can someone get their landscape certified?

Required Practices for Standard Level

- Automatic rainfall shutoff device installed
- Weed and feed is not used
- No fertilization 24 hours before rain
- Fertilization at or below UF / IFAS rates
- Volcano mulching is avoided



How can someone get their landscape certified?

Required Practices for Standard Level

- Irrigation calibrated to $\frac{1}{2}$ " – $\frac{3}{4}$ "
- Spray and rotor heads on separate zones
- 10-foot maintenance free zone around water body



How can someone get their landscape certified?

Required Practices for Standard Level – Aesthetics (4 out of 5)

- Landscape appears to be actively managed
- Appropriate pruning practices
- Defined landscape beds
- Matches aesthetics of community
- Landscape and household debris properly disposed of



How do I get started on converting to Florida-Friendly™?

- A little bit at a time
 - Track rainwater
 - Add layers
 - Reduce turf areas
 - Install compost bin, rain sensor, microirrigation
 - Find places you can reduce zones or cap irrigation
 - Create habitat areas



- **Phase 1: Master Plan**
 - Step 1 – Conduct a site inventory and analysis
 - Select plants
 - Draw plant beds and plants
- **Phase 2: Hardscape and Trees**
 - Step 2 – Remove sod for new hardscape and new plant beds for trees
 - Correct any drainage problems
 - Install new irrigation or re-fit existing system
 - Step 3 – Install new hardscape (patios, decks, walkways, etc.)
 - Step 4 – Install trees and mulch
- **Phase 3: Plant Beds**
 - Step 5 – Install Bed #1
 - Step 6 – Install Bed #2
 - Step 7 – Install Bed #3

Florida-Friendly™ Landscaping

resources

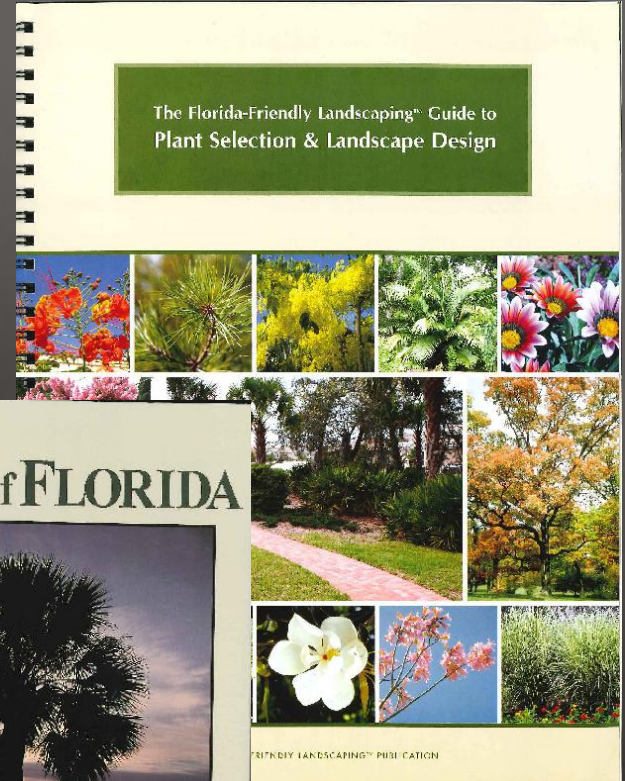
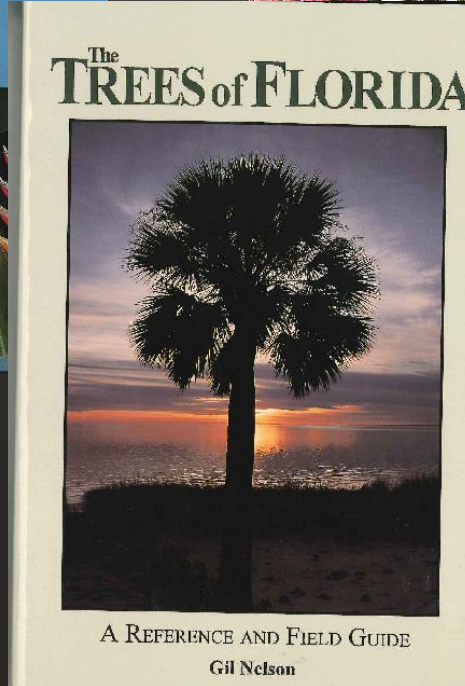
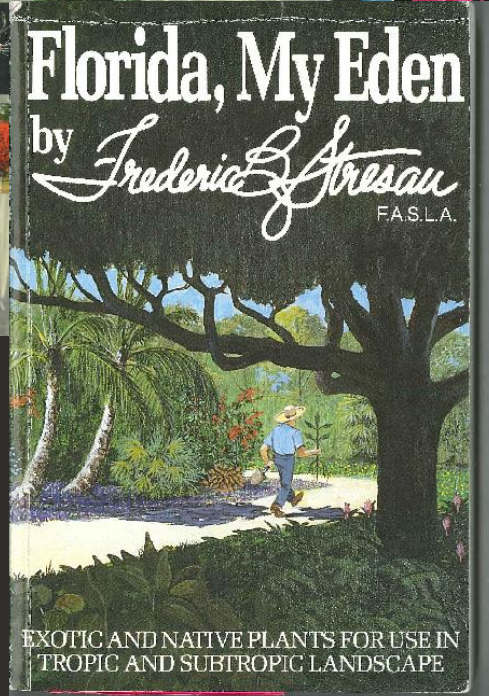
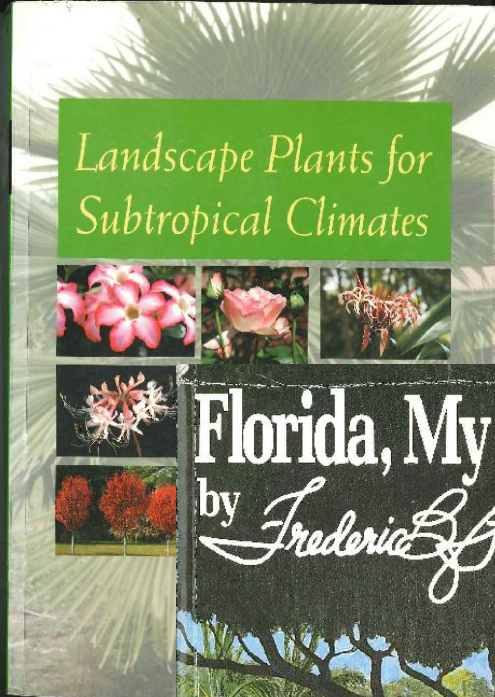
- Palm Beach County Cooperative Extension:
<http://www.pbcgov.com/coextension/>
- FYN Website: FYN.IFAS.UFL.EDU
- Florida-Friendly Landscaping™ Guide to Plant Selection & Landscape Design:
fyn.ifas.ufl.edu/pdf/FYN_Plant_Selection_Guide_v090110.pdf
- Florida Yards & Neighborhoods Handbook:
fyn.ifas.ufl.edu/materials/FYN_Handbook_vSept09.pdf
- Professionals certified in Best Management Practices of the Green Industries:
http://fyn.ifas.ufl.edu/professionals/certification_lists/cert_county_name.shtml
- South Florida Water Management District: www.sfwmd.gov/waterwatch

Florida-Friendly™ landscaping

resources

- ◎ Adopting a Florida-Friendly Landscape: Steps for Converting a Traditional Development Landscape to a Florida-Friendly Landscape (EDIS Publication #ENH1135) : <http://edis.ifas.ufl.edu/pdffiles/EP/EP39600.pdf>
- ◎ The Community Landscape: An environmental Approach: <http://sarasota.ifas.ufl.edu/fyn/Pubs/FYNCommunityGuidelines-Broc.pdf>
- ◎ Florida-Friendly Landscaping™ Pattern Book: Sample plant lists and designs for four Florida regions: USDA Hardiness Zones 10A, 10B, And 11, South Florida (EDIS Publication#ENH1178): <http://edis.ifas.ufl.edu/pdffiles/EP/EP43900.pdf>

Florida-Friendly™ landscaping resources



IFAS Assessment of Non-native Plants



in Florida's Natural Areas

[Home](#) • [Center for Aquatic & Invasive Plants](#) • [IFAS Extension](#)

[Status Assessment](#) - PDF (277 KB)

[Detailed Data](#)

[Intraspecific Taxon Protocol](#)

[The Predictive Tool](#) - PDF (194 KB)

[Conclusions Page](#)

[Results Table](#) - PDF (562 kb)

[Approved Specified and Limited Uses](#) - XLS (33 KB)

[Assessment Zones](#) - PDF (10 kb)

[Instructions for Use](#) - DOC (75 KB)

[Citation Examples](#) - DOC (117 KB)

[Invasive Plants Working Group](#)

Conclusions are updated several times a year and should be referenced. Please check the Conclusions Tables each time you cite the IFAS assessment to be sure that you are using the most up-to-date information.

All Species & Zones	North Zone	Central Zone	South Zone
Conclusions by Genus Updated Oct 2011 - PDF (294 KB)	Prohibited Updated Feb 2011 - XLS (30 KB)	Prohibited Updated Feb 2011 - XLS (30 KB)	Prohibited Updated Feb 2011 - XLS (30 KB)
Conclusions by Common Name Updated Oct 2011 - PDF (437 KB)	Invasive - Not Recommended Updated Oct 2011 - XLS (45 KB)	Invasive - Not Recommended Updated Oct 2011 - XLS (46 KB)	Invasive - Not Recommended Updated Oct 2011 - XLS (47 KB)
	Caution Updated Oct 2011 - XLS (37 KB)	Caution Updated Oct 2011 - XLS (42 KB)	Caution Updated Oct 2011 - XLS (43 KB)
	Can Be Recommended Updated Oct 2011 - XLS	Can Be Recommended Updated Oct 2011 - XLS	Can Be Recommended Updated Oct 2011 - XLS



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Growing, planting and promoting Florida native plants for sustainable landscapes.

Gardeners & Homeowners Visit PlantRealFlorida.org

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REAL Florida Professionals

- Wholesale Growers/Nurseries
- Landscape Associates
- Environmental Consulting Associates
- Allied Nursery / Landscape Products
- Allied Trade Services

REAL Florida Landscapes

Starting a design? Consider what grows naturally, then find the plants.

Select Your County



Enjoy Florida Wildflowers. Get the wildflower tag.

[Learn More](#)



FEATURED NATIVE PLANT

Two-winged Silverbell

Halesia diptera

Small, pretty deciduous tree for Zone 9A and northward. Reaches 30 feet in height and perhaps 20 feet in width. Flowers profusely in

Find a specific plant

Enter the first few letters of the common or botanical name, then select a plant from the list.

Beach sunflower (*Helianthus debilis* spp.)
Or, choose a plant type below.




Hardiness Zones:

9b, 10a, 10b

Plant Communities:

 Beach Dunes Zone 9

Dune Sunflower (*Helianthus debilis* spp.)

Type:	Groundcover, Wildflower	Bloom Color:	yellow
Light:	Full sun	Salt:	No
Soil Moisture:	Dry	Wildlife Support:	

Find this plant for your yard!

Show results for Zip Code

Show entries Search:

Name	Phone	City	Size	Other info
Alexander Landscaping	(954) 472-5039	Davie	g	
Bayside Tree Farms, Inc.	(305) 245-9544	Homestead	g	
Brantley Nurseries	(407) 869-6545	Longwood	6"	
Deluxe Trees & Shrubs	(863) 494-1488	Arcadia	g	
Doug Ingram & Sons Nursery	(305) 247-3680	Homestead	g	
EarthBalance	(888) 536-2855	North Port	g	
Erhardt Nursery	(561) 967-7181	Lake Worth	LN	
Erhardt Nursery	(561) 967-7181	Lake Worth	g	
Sandy Lane Nursery	(239) 285-0561	Naples	g	

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9 FFL Principles

Your County

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Classes

Educational Services

Designations & Awards

Success Stories

Low-Impact Development

UF/IFAS Partnership at
Hastings

Community Association Kit

💧 Resources

💧 FYN Educators: Log In

Florida-Friendly Landscaping™ PROGRAM

Florida-Friendly Landscaping™ (FFL) means using low-maintenance plants and environmentally sustainable practices. Learn how you can have a beautiful landscape that could save you time, energy and money while protecting our future. Find out more from your county's FYN program or from this web site and the FloridaYards.org companion web site of the FDEP Springs Initiative. Read more about the program...



For Homeowners

Solutions for your yard: all you need to know about tending a Florida landscape.

[More...](#)

Community Associations and Property Managers



The Nine FFL Principles

See the new E-learning Articulate **presentation**.

1. Right Plant, Right Place
(933KB pdf)
2. Water Efficiently
(688KB pdf)
3. Fertilize Appropriately
(965KB pdf)
4. Mulch
(515KB pdf)
5. Attract Wildlife
(401KB pdf)
6. Manage Yard Pests Responsibly



FYN Homeowner Program

- [9 FFL Principles](#)
- [Your County](#)
- [Official Yard Recognitions](#)
- [Florida-Friendly Living](#)
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- [UF/IFAS Partnership at Hastings](#)
- [Community Association Kit](#)

Resources

FYN Educators: Log In

GI-BMP Program

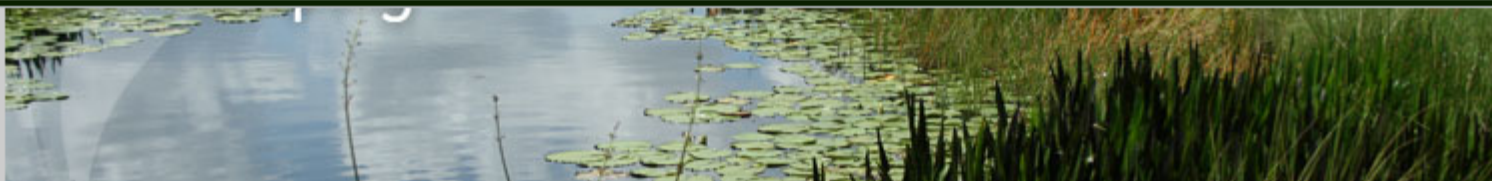
- [Program Overview](#)
- [Training Schedule](#)
- [Instructor Program](#)
- [GI-BMP Manual](#)
- [Certification List](#)
- [Fertilizer Ordinances](#)
- [Contacts](#)
- [Publications](#)

Florida Yards & Neighborhoods Publications

- [Brochure](#)
- [Handbook](#)
- [The Florida-Friendly Landscaping™ Guide to Plant Selection & Landscape Design, 1st ed. \(2010\)](#)
- [How to convert a yard to Florida-Friendly Landscaping™](#)
- [Sample plant lists and designs for four Florida Regions —North, North Central, South Central, and South:](#)
 - [FFL Book Zone 8A-8B](#)
 - [FFL Book Zone 9A](#)
 - [FFL Book Zone 9B](#)
 - [FFL Book Zone 10](#)
- [Yard Recognition Checklist](#)
- [Videos](#)
 - [Developing a Better Way - Using Low Impact Development Practices](#)
 - [Florida Yards and Neighborhoods: Nine Landscape Principles](#)
 - [Creating A Florida-Friendly Yard](#)
 - [Landscaping for a Rainy Day](#)
 - [Secrets to a Florida Yard](#)
- [Articulate Flash eLearning Modules](#)
 - [The Nine Florida-Friendly Landscaping™ \(FFL\) Principles](#)
 - [How to use the Florida-Friendly Landscaping™ Plant List](#)

University of Florida Publications

- [Extension Publications](#)



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- [UF/IFAS Partnership at Hastings](#)
- [Community Association Kit](#)

Resources

For Educators: Log In

💧 GI-BMP Program

- [Program Overview](#)
- [Training Schedule](#)
- [Instructor Program](#)
- [GI-BMP Manual](#)

Florida-Friendly Landscaping™ PROGRAM



Florida-Friendly Landscaping™ (FFL) means using low-maintenance plants and environmentally sustainable practices. Learn how you can have a beautiful landscape that could save you time, energy and money while protecting our future. Find out more from [your county's](#) FYN program or from this web site and the [FloridaYards.org](#) companion web site of the FDEP Springs Initiative. [Read more about the program...](#)



For Homeowners

Solutions for your yard: all you need to know about tending a Florida landscape.

[More...](#)

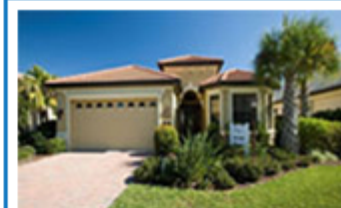


Community Associations and Property Managers

A one-stop information kit on Florida-Friendly Landscaping™ communities, maintenance, principles and legislation.

[More...](#)

For Professionals



The Nine FFL Principles

See the new E-learning Articulate **presentation**.

1. Right Plant, Right Place
[\(933KB pdf\)](#)
2. Water Efficiently
[\(688KB pdf\)](#)
3. Fertilize Appropriately
[\(965KB pdf\)](#)
4. Mulch
[\(515KB pdf\)](#)
5. Attract Wildlife
[\(401KB pdf\)](#)
6. Manage Yard Pests Responsibly
[\(1.04MB pdf\)](#)
7. Recycle
[\(1.12MB pdf\)](#)
8. Reduce Storm



Florida Trees

urban and suburban sites

Home

Tree Indexes

- Scientific Names
- Common Names

Tools

- Site Analysis
- Tree Selector
- Tree Expert System
- Tree Identification

Related Sites

- Urban Design
- Nursery Growing
- Selection
- Planting
- Pruning
- Maintenance
- Palms
- Uncommon Trees
- zones 7-9
- zones 9-11
- Invasive Plants



Important! This site requires Flash Player. Get the necessary [flash plug-in here](#). Follow instructions on screen. It may take a few minutes to do this.

This web site is designed to help guide you through the process of tree selection, and provide a list of possible trees for your project in Florida and southeast US hardiness zones 8-11 ([Click here if you live in zones 2-7](#)). It is also designed to provide extensive cultural and maintenance information, and many photographs. This information was assembled through a grant from the USDA Forest Service Southern Region through the Florida Division of Forestry in cooperation with University of Florida and the Florida Yards and Neighborhood project. The principle authors of this system are Drs. Ed Gilman and Howard Beck, professors at University of Florida, and Alison Boydston, assistant in horticulture.

Using the Tree Selector

The Tree Selector allows you to develop a list of trees. You develop the list by choosing soil, site, and plant attributes. You can mark more than one value of an attribute such as soil pH. This chooses trees that can grow in soils with either one of the values of soil pH. On the other hand, when you choose values for more than one attribute, such as acid soil pH and tree height 25-50 feet, only trees with both attributes will be listed. You may choose as many attributes as you like but remember the list of matching trees diminishes as you pick more attributes. When your plant list becomes very short or has no trees on it at all, start over and choose fewer attributes. [Click here for more detail.](#)



Environment

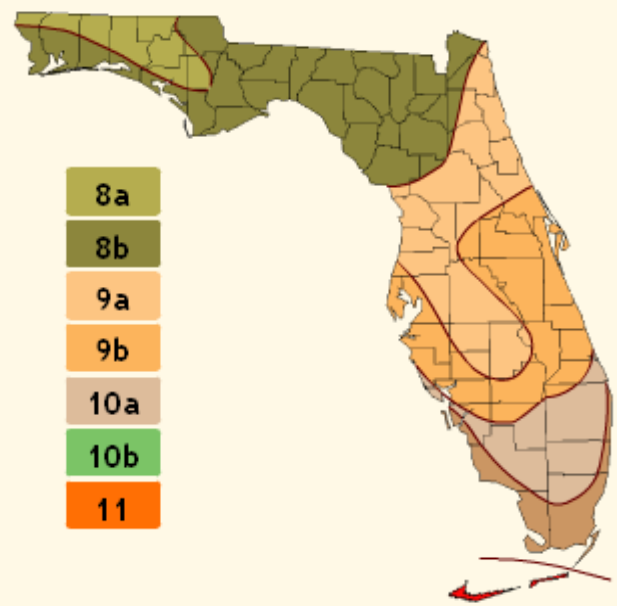
General

Uses

Attributes

Size/Shape

Select hardiness zone



- 8a
- 8b
- 9a
- 9b
- 10a
- 10b
- 11

Recommended for dry climates

yes no

Drought tolerance

high moderate little

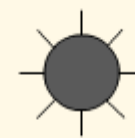
Light tolerance



full sun



part sun



shade tolerant

Salt spray tolerance

high moderate low none

Soil texture tolerance

clay loam sand

Soil salt tolerance

good moderate poor

Soil pH tolerance

acidic slightly alkaline alkaline

Soil drainage tolerance

well-drained occasionally wet extended flooding

SEARCH CRITERIA

Recommended for Dry Climate: yes
Light Requirements: full sun
Soil Texture Tolerance: sand
Drought Tolerance: high
Salt Spray Tolerance: high
USDA Hardiness Zone: 10B

SEARCH RESULTS : 12 Trees found

Celtis laevigata 'All Seasons'
Celtis laevigata
Chamaerops humilis
Juniperus chinensis 'Torulosa'
Parkinsonia aculeata
Pinus pinea
Quercus geminata
Quercus virginiana 'QVTIA'
Quercus virginiana
Raphiolepis umbellata
Sabal palmetto
Washingtonia robusta

 Display scientific names Display common names[New search](#)[Main menu](#)[Refine search](#)

Florida Trees

for urban and suburban sites

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Invasive Plants



Chamaerops humilis

kuh-MEE-rops HEW-mih-liss

Family **Palmae**

European Fan Palm

USDA Hardiness Zone: 8B-11

Invasive Potential: not assessed or incomplete

Life Span: 25 to 50 years

Soil Drainage Tolerance : well-drained

Images



Click photo to expand

Photos:

Entire Plant
Foliage
Flower
Trunk
Other

Details

Select a topic

Native Origin
Use
Size
Crown/Canopy
Foliage
Flower
Fruit
Trunk and Branches
Culture/Tolerances
Other
Descriptive Text

Chamaerops humilis European Fan Palm, Mediterranean Fan Palm

This small, multi-stemmed, hardy palm is the only one native to Europe, and is hardier than most palms. The curved, clumping, short trunks and gray-green, fan-shaped leaves, borne thickly in a bushy head, make a stunning sculptural element in a garden or patio containers. The fine-textured fronds make the palm stand out from other plants in the landscape. Leaf color on individual plants ranges from light green through silver. Although growth rate is slow, it is well worth the wait since even small plants will stand out nicely in almost any landscape.

By removing suckers from the base of the main trunk, this slightly salt-tolerant palm may also be trained as a single-trunked palm. Since the leaf stalks are spiny, Fan Palm may also be used as a barrier, planted three to

Florida-Friendly Landscaping™



FYN Homeowner Program

- 9 FFL Principles
- Your County
- Official Yard Recognitions
- Florida-Friendly Living
- Publications & Training
- Remove Invasives

FYN Builder & Developer Program

- Landscape Architect CEU Classes
- Educational Services
- Designations & Awards
- Success Stories
- Low-Impact Development
- UF/IFAS Partnership at Hastings
- Community Association Kit

Resources

GI-BMP Certification List

GI-BMP Training Snapshot

Certified Professionals			Certified Instructors		
13,466			230		
Alachua	Desoto	Hendry	Lewy	Osceola	Suwannee
Baker	Dixie	Hernando	Liberty	Palm Beach	Taylor
Bay	Duval	Highlands	Madison	Pasco	Union
Bradford	Escambia	Hillsborough	Manatee	Pinellas	Volusia
Brevard	Flagler	Holmes	Marion	Polk	Wakulla
Broward	Franklin	Indian River	Martin	Putnam	Walton
Calhoun	Gadsden	Jackson	Miami-Dade	Santa Rosa	Washington
Charlotte	Gilchrist	Jefferson	Monroe	Sarasota	Outside FL
Citrus	Glades	Lafayette	Nassau	Seminole	
Clay	Gulf	Lake	Okaloosa	St. Johns	
Collier	Hamilton	Lee	Okeechobee	St. Lucie	
Columbia	Hardee	Leon	Orange	Sumter	

Individuals who have successfully completed the GI-BMP training class are listed below by county, based on the work address provided, or other mailing address if work address was



Laura A. Sanagorski
Environmental Horticulture
Extension Agent
lsanagorski@pbcgov.org
561.233.1748

UF / IFAS
Palm Beach County Cooperative
Extension

Thank you!

Florida-Friendly Landscaping™
prepared for Palm Beach County Master Gardeners