

## Turf in Florida

- Bahiagrass and centipedegrass have good drought tolerance — not St. Augustinegass.
- St. Augustinegrass and bermudagrass have generally good salinity tolerance — good for coastal areas, reclaimed water.



 Each turfgrass has at least one major pest problem that could limit its use in certain locations.

## Right Plant, Right Place

- Turfgrass benefits:
  - Can be an appealing element.
  - Reduces stormwater runoff.
  - If healthy, can filter out impurities.
- The most shade-tolerant turf will still need
   5-6 hours of high-intensity sunlight per





# Too tough for turf



- In addition to stress from reduced light levels, turf under trees competes with:
  - Soil space
  - Water
  - Oxygen
  - Nutrients
- Most tree roots extend 3-5 times size of tree canopy, so effects may happen far from tree trunk.

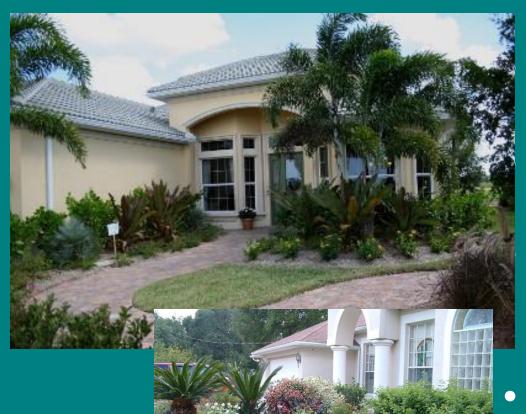
# Too tough for turf



- Deep shade
- Recurring fungal problems
- Compact soil
- Improper maintenance
- Buried building materials/ poor quality fill dirt



## **Practical Alternatives to Turf**



Landscaped beds

**Ground covers** 

Ornamental Grasses

Hardscaped areas

# Popular shadetolerant groundcovers



## Cast Iron Plant

- A slow grower with dark green foliage, can also be variegated.
- An extremely tough plant with few problems. It can be sensitive to frost.
- 1-3 ft. tall



#### **Dwarf Asiatic Jasmine**

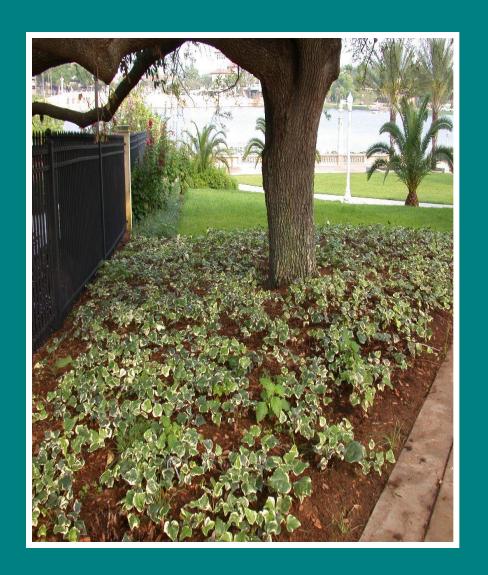
- Will require moderate irrigation during drought periods.
- Will not freeze back.
- Grows quickly.
- Sun to shade.
- 1- ft. tall





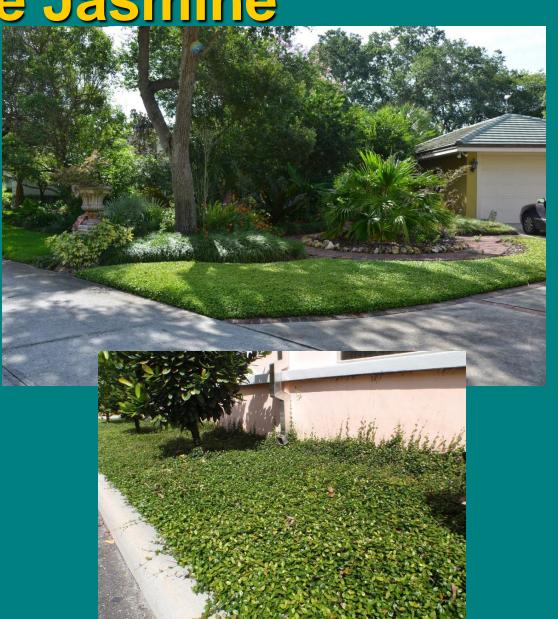
# Algerian Ivy

- Prefers moist shady sites, and also comes in variegated forms.
- Algerian Ivy is less aggressive and has larger leaves than English Ivy.
- Grows quickly.
- 6-12 inches



# Confederate Jasmine

- Tolerates sun and shade with dark green foliage,
- Fragrant flowers.
- Forms thick mat that chokes out weeds.



## Coontie

- Native to Florida.
- Extremely drought tolerant.
- Does not die back in winter.
- Slow grower.
- 1-3 (4-5) ft. tall.

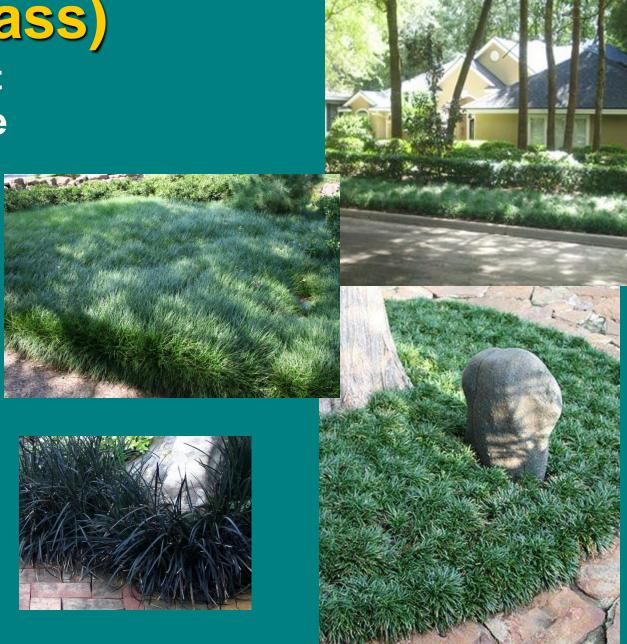




# Mondo (Grass)

 One of the most readily available shade-tolerant groundcovers.

- Tolerates drought and poor soils
- Dark-green, glossy leaves.
- 6-12 in. tall.



# **Ground Covers for Sunny Areas**

## Perennial Peanut

- Thrives without irrigation once established.
- Can be mowed
- Starts with rhizomes.
- Fills in quickly.
- 6-12 inches tall.
- Squeezes out most weeds



## Beach Sunflower

- Blooms nearly year-round.
- Often used in mass plantings, or for soil stabilization.
- Low water requirements.
- 1-4 ft. tall.





**Shore Juniper** 

- 1-2 ft. tall.
- Must be in full sun.
- Low water requirements once established.
- Susceptible to mite damage.



# Liriope (Lily Turf)

- Available in variegated and non-variegated.
- Can tolerate both sun and shade.
- Drought and freeze tolerant.
- Spreads by rhizomes.
- 1-2 ft. tall.





### Ornamental Grasses

- Low maintenance.
- Seldom require fertilizer, and have few pest and disease problems.
- Drought-resistant and low maintenance.
- Adds privacy or screens unpleasant view.
- Divide when necessary in early spring.



# **Muhly Grass**

- Very pretty, unique.
- Adds both fall and spring color.
- Very drought tolerant.
- May require a little cutting back in the winter.
- · Pest free.
- 2-5 ft. tall.





#### **Fakahatchee Grass**

- Prefers full sun will tolerate moderate shade.
- Moderate growth rate.
- Medium-high drought tolerance.
- Native to Florida.
- 4-6 ft. tall.



### Sand Cord Grass

- Perennial grass
- Needs moderate irrigation during drought.
- Does not freeze.
- Grows at medium rate.
- 3-4 ft. tall.



#### **BEFORE:** Traditional landscape





#### **AFTER:** Enlarged bed with a variety of plants

 The large, healthy oak tree and shrubs were retained to provide shade and privacy.





Flax Lily – 1-2 ft. tall

Purple Coneflower – 1-3 ft. tall

# **BEFORE:** Traditional landscape with a large turf area



# AFTER: Larger bed with diverse, visually appealing plants attracts birds and butterflies

 Canary Island
 Date Palm kept.





Gail Hanson
Publication #ENH1135



Seaside Goldenrod – 4-6 ft tall



Black-eyed Susan – 2-3 ft tall







# **BEFORE:** Traditional landscape with limited plantings and large sod area



#### **AFTER:** Larger bed with variety of plants.

- Combination of colors, textures and shapes add visual appeal and attract birds and butterflies:
  - Pentas
  - Coontie
  - Salvia
  - Flax Lily





# **BEFORE:** Typical side-yard includes large sod area and exposed gutters and utilities.



# AFTER: Large beds, variety of plants, stone walkway, which gives form to the plant beds.



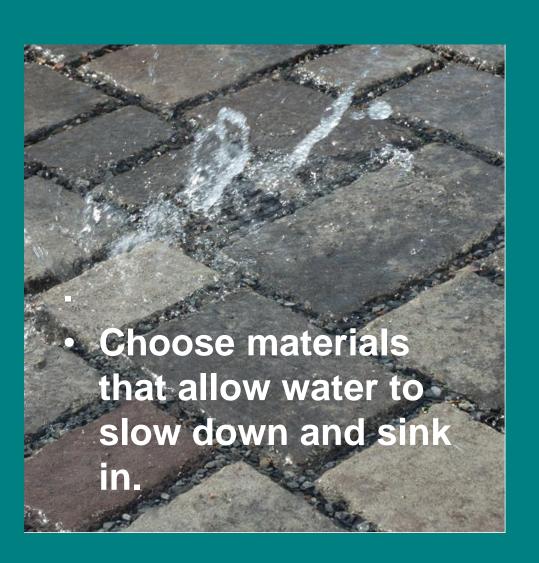
### What kind of mulch around plants?



- Melaleuca
- Pine Bark
- Pine Straw
- Eucalyptus
- Natural Byproducts

Cypress mulch
Ground rubber
Stones

# New Hardscape? Go Porous!







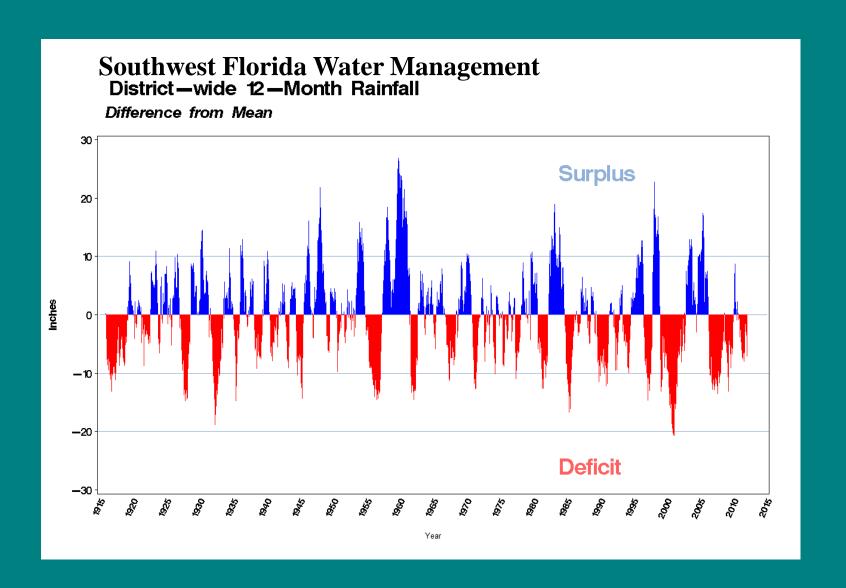
This is what people *want* during drought!



This is more realistic, the goal is to keep the grass *alive* until the rains return



### So What Is "Normal" Rainfall?



### Need "Head-to-Head Coverage



Poor Head to Head Coverage



### **Irrigating Correctly**

- Calibrating a system:
  - •Place several small straight sided containers randomly in the zone.
  - •Allow system to run, then measure the depth of water in *each* can
  - you want 3/4 of an inch of irrigation water each time you water.
  - •Repeat procedure for each zone



#### Rain Shutoff Devices (Rain Sensor)

### Disks seem to wear out after many wet/dry cycles

 Research has shown they last about 1 to 2 years, then need to be replaced!





"The Tree is Damaging the Concrete!" or should it be

"The Concrete is Damaging the Tree!"





### Can You Can the Roots Near the Base of the Tree?

- Yes you "can"
- If you want the tree to be unstable and/or die!





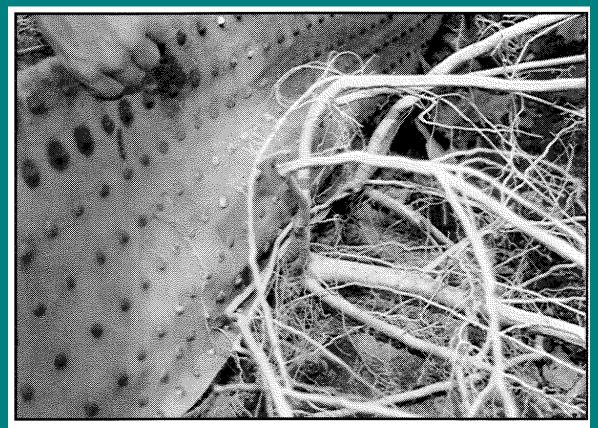


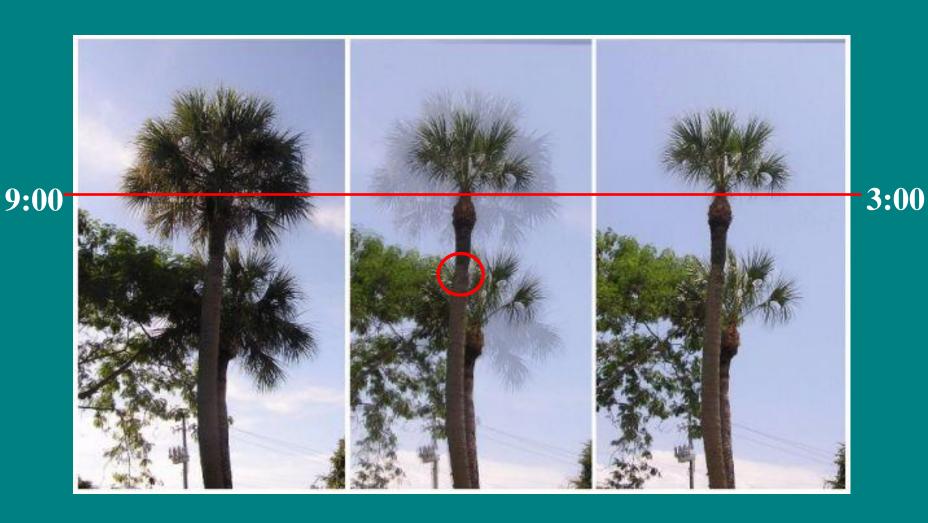
Figure 2. Biobarrier forced roots to grow deeper in the soil profile, but once under the barrier, many quickly grew back toward the soil surface. The tree trunk is located off to the left of the photograph.

This study shows that fewer roots grew in the top 30 cm (12 in) of soil beyond a root barrier installed in a soil with a high water table. It is not known whether this reduction in root number would translate into less root damage to sidewalks. It could be that 1 or 2 roots might cause as much damage as a greater number of roots. More research and field experience are needed with root barriers, especially in poorly drained and com-

# Pop Quiz!!! Good or Bad Pruning?



#### IMPROPER PRUNING



### When to prune a palm

- Only remove dead leaves (fronds)
- Do not remove green or yellowing fronds
- No "hurricane cuts"
- Remove seed heads and flower stalks if you wish





## Keep it Clean! Disinfect Pruning Equipment!!! Canary Island Date Palm with TPPD. Spear leaf has fallen over. Spear leaf has fallen over.

- Household Disinfectants (Lysol, etc.)
- Chlorine Bleach (Corrosive)
- Ethanol or Isopropyl Alcohol (Flammable!)
- Trisodium Phosphates
   (TSPs) (Corrosive, Keep off Sink!)
- Pine Oil Products (25% Concentration)
- Industrial Products/Hospital type (quaternary ammonium compounds "quats")

