

TURFGRASS & GROUND COVERS *FOR SOUTH FLORIDA*

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Florida-Friendly
Landscaping™ PROGRAM 



Palm Beach County
Cooperative Extension
Service

What is Extension?



Thinking outside the lawn

- Why is it important?
- Florida-Friendly Landscaping™
- Diversity!
- Reduce pest and disease pressure
- Attract wildlife
- Plant options

9 Principles

1. Right plant, right place
2. Water efficiently
3. Fertilize appropriately
4. Mulch
5. Attract wildlife
6. Manage yard pests
7. Recycle
8. Reduce stormwater runoff
9. Protect the waterfront



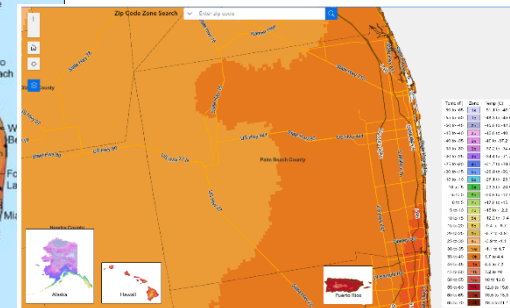
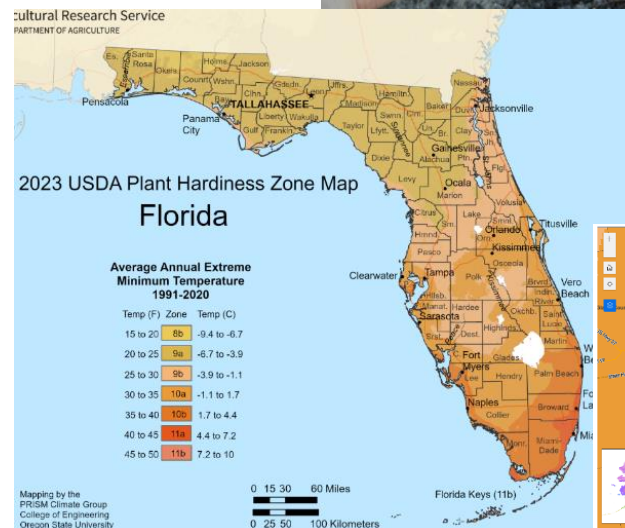
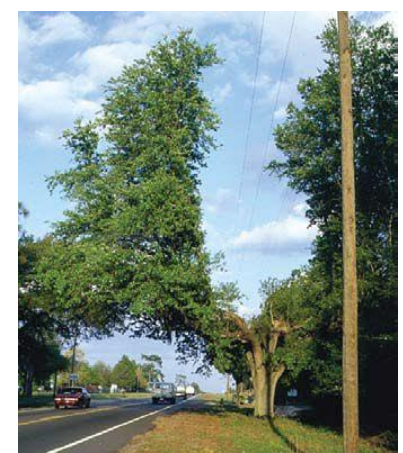
Florida-Friendly Landscaping is a collection of practices involving design, installation, operation, and maintenance which are intended to reduce irrigation water use, protect water quality from over-use of fertilizer and pesticides, and reduce stormwater runoff.

Florida-Friendly
Landscaping™ PROGRAM



Right Plant, Right Place

- Light
- Water
- Soil
- Drainage
- Structural limitations & obstructions – **Mature size!**
- Views
- Choose plants for your USDA Hardiness zone



Water Efficiently

Approximately **60%** of a residential water bill attributed to irrigation

1000 ft² of Grass



Requires **12,000- 22,000** gallons of irrigation water per year

1000 ft² of Landscape Beds

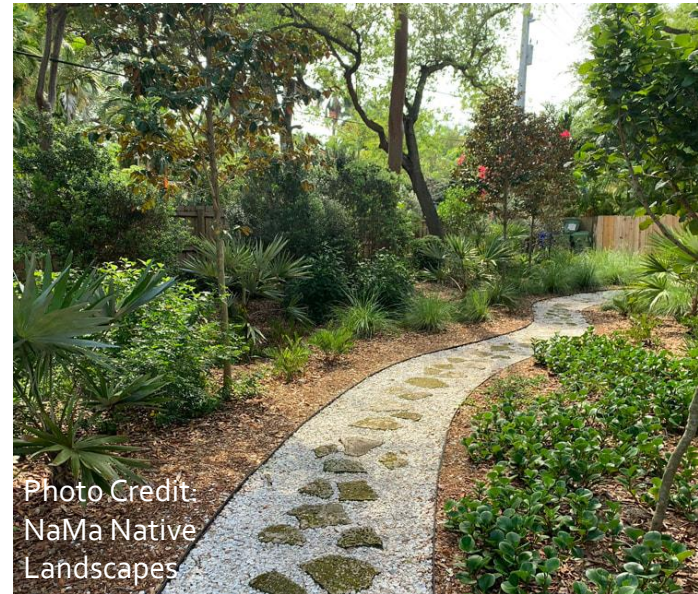


Photo Credit:
NaMa Native
Landscapes

Can conserve over **15,000** gallons of irrigation water per year

Attracting Wildlife

- Urban areas rapidly increasing worldwide
- Local plant and animal communities particularly affected
- Habitats need
 - Food
 - Water
 - Shelter/Cover
 - Space
- Animals only reside/forage in areas with appropriate habitats
- Plant a **diverse** variety of natives
 - Heights
 - Densities
 - Flowers
 - Fruits/Seeds
 - Seasons

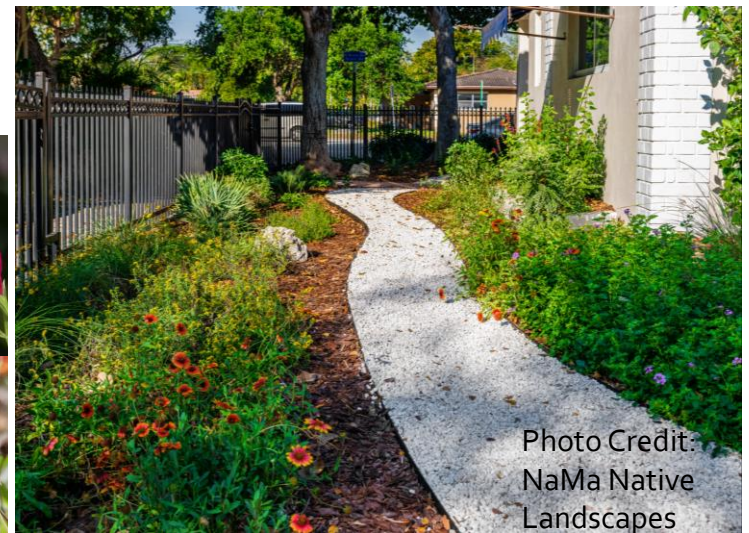


Photo Credit:
NaMa Native
Landscapes

Manage Landscape Pest Responsibly

- **Set realistic expectations**

- Not practical to strive for insect-free, weed-free, or disease-free landscape

- Diversity = fewer pest and disease pressure

- Integrated Pest Management (IPM)

- Scout
- Start with the least toxic methods
- Spot treat! Avoid routine applications of pesticides
- Know beneficial insects in your yard

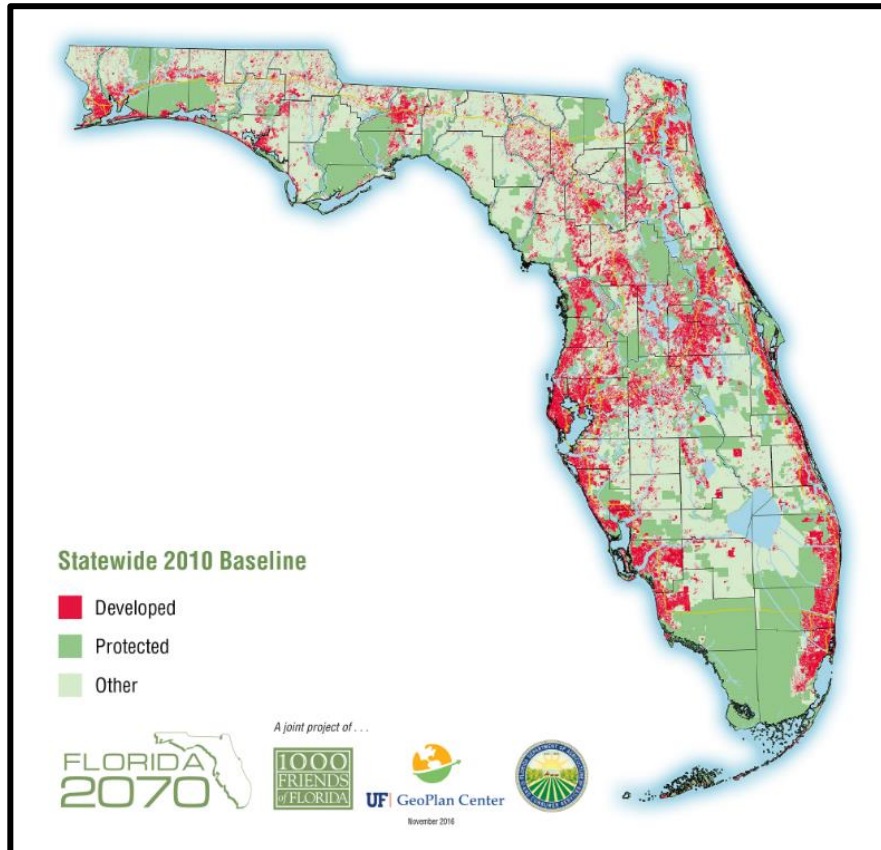
- Management

- Cultural
- Biological
- Physical
- Chemical

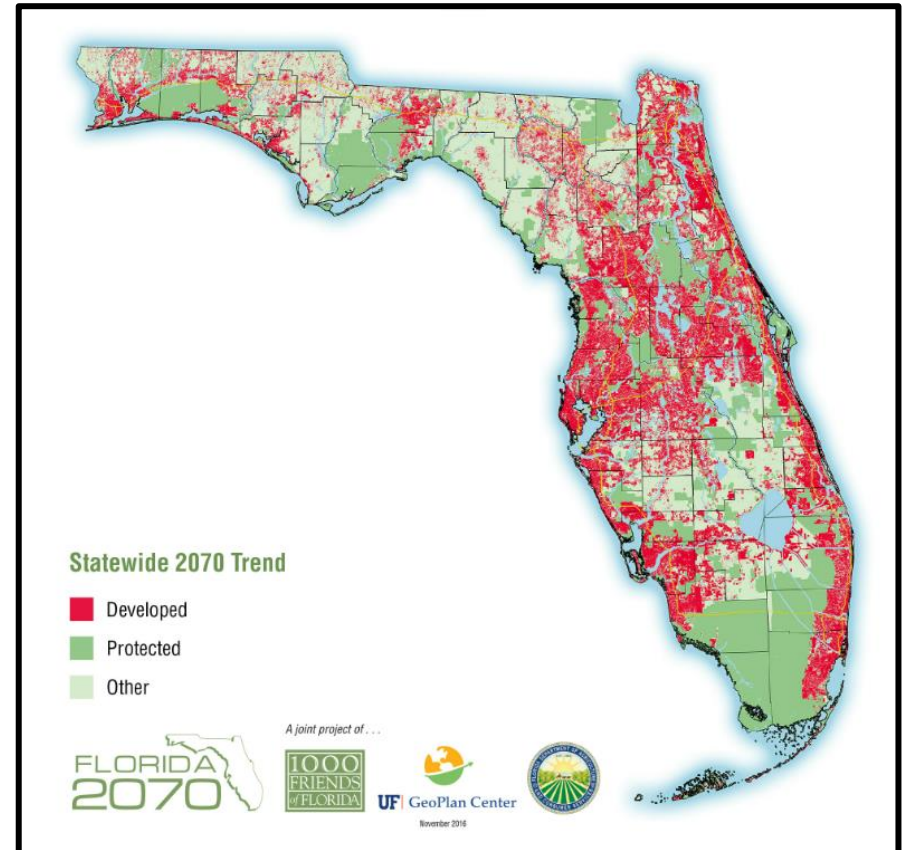


Environmental Concerns

2010 Baseline



2070 Projection



A photograph of a modern, two-story house with large glass windows and doors. In front of the house is a swimming pool with a blue interior. To the right of the pool is a patio area with outdoor furniture, including a sofa and a dining set. The foreground is a large, well-maintained green lawn. The text "TURF SPECIES" is overlaid in large white letters, and "For South Florida" is overlaid in smaller white letters below it.

TURF SPECIES

For South Florida

South Florida Lawn Grasses





St. Augustine

Advantages

- Dense, green turf
- Adapted to South Florida soils (high pH)
- Good shade and salt tolerance
- Quick to establish
- Readily available



Disadvantages

- High irrigation needs
- Pests and diseases
- Poor cold and drought tolerance
- High fertilizer needs
- Weekly mowing in the summer
- Excessive thatch potential
- Sod only (no seed)



St. Augustine - Cultivars

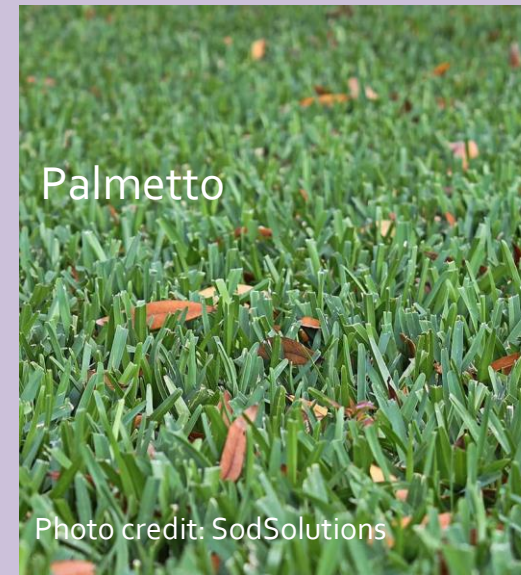
Standard

- 'Floritam'
- 'Palmetto'
- 'BitterBlue'
- 'Classic'
- 'Raleigh'
- 'ProVista'
- 'CitraBlue'



Dwarf

- 'Seville'
- 'Delmar'
- 'Sapphire'
- 'Captiva'
- 'Palmetto'
- 'Sola'



St. Augustine - Maintenance

- Mowing height
 - Standard = 3.5" – 4"
 - Dwarf = 2" – 2.5"
- Fertilization recommendations S.F.L.
 - Do not exceed 4-6 lbs N/1000 sq ft/year
 - Split into 2 to 6 applications
- Irrigation of established turf should be based on an as-needed basis
 - 1/2" – 3/4" of water per application
- Thatch management (if over 1")
 - Proper mowing, fertilization & irrigation
 - Verticut or power rake
- Pests and diseases
 - Scout, properly identify, and select for resistance
 - Chinch bugs, large patch, LVN, gray leaf spot, webworms, armyworms, take all, etc.

Photo credit: UF/IFAS



Zoysia

Advantages

- Very dense, resists weed invasion
- Adapted to wide range of soils
- Good shade, salt and wear tolerance



Photo credit: UF/IFAS

Disadvantages

- Irrigation needs, drought dormancy
- Winter dormancy (cooler temperatures)
- Pests and diseases
- Spoon feed fertilizer
- Weekly+ mowing in the summer
- Excessive thatch potential
- Sod only (no seed)

Zoysia - Cultivars

Z. japonica (coarse)

- El Toro
- Empire
- JaMur
- Meyer
- Palisades



Z. matrella (fine)

- Cashmere
- Diamond
- Taccoa Green
- Trinity
- Zeon
- Zorro



Hybrid Cultivars

- CitraZoy™
- Emerald
- Icon™
- Innovation™



Photo credit: Sod Solutions

Zoysia - Maintenance

- Mowing height
 - Medium- to Coarse-texture = **1.75" – 2.5"**
 - Fine-texture = **.25" – 1"**
- Fertilization recommendations S.FL.
 - Do not exceed **2.5-4.5 lbs N/1000 sq ft/year**
 - Split into 3 to 6 applications
- Irrigation of established turf should be based on an as-needed basis
 - 1/2" – 3/4" of water per application
- Thatch management
 - Proper mowing, fertilization & irrigation
 - Verticut or power rake
- Pests and diseases
 - Scout, properly identify, and select for resistance
 - Large patch, hunting billbug, turtleturtle mealybug, dollar spot, etc.



Bahia

Advantages

- Drought tolerant
- Low fertilizer needs
- Tolerant of sandy, infertile soils
- Low maintenance
- Seed or sod



Photo credit: UF/IFAS

Disadvantages

- Prolific seed heads (summer)
- Open growth = weed competition
- Poor wear and salt tolerance
- Mole crickets
- Course stems are difficult on the mower



Photo credit: UF/IFAS



Photo credit: UF/IFAS

Bahia - Maintenance

- Mowing height = **3" – 4"**
- Fertilization recommendations S.FL.
 - Do not exceed **1-2 lbs N/1000 sq ft/year**
 - Split into 1 to 3 applications
- Irrigation of established turf should be based on an as-needed basis
 - **$1\frac{1}{2}" - 3\frac{3}{4}"$** of water per application
- Pests and diseases
 - Weeds and mole crickets



Photo credit: UF/IFAS



Photo credit: UF/IFAS

Bermuda

Advantages

- Vigorous, dense turf
- Fine texture
- Adapted to a wide range of soils and climates
- Wear, drought, and salt tolerant
- Rapid establishment

Disadvantages

- High maintenance
- Poor shade tolerance
- Used mostly as a sports turf
- Poor pest tolerance
- Invades plant beds
- Thatch



Bermuda - Cultivars

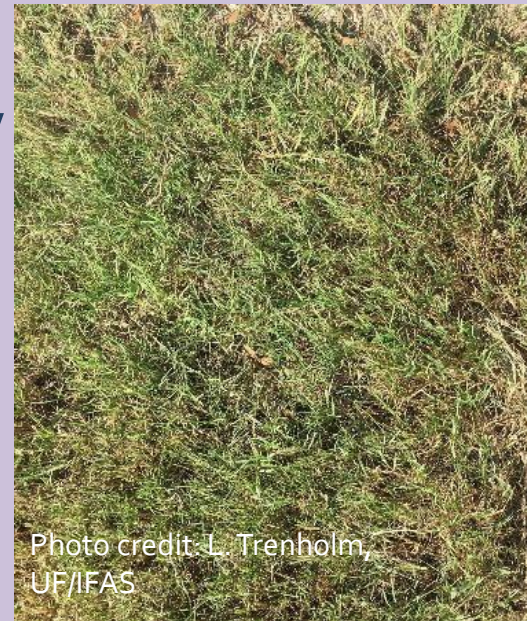
Vegetative (sod/sprigs)

- 'Tifway'
- 'TifGrand'
- 'TifSport'
- 'Latitude 36'
- 'TifTuf'
- 'Celebration'
- 'Bimini'
- 'NorthBridge'
- 'PremierPRO'
- 'TifEagle'



Seed

- Princess77
- Sultan
- 'Arizona Common'
- 'Riviera'
- 'Cheyenne'
- 'Sahara'
- 'Sundevil'
- 'Jackpot'

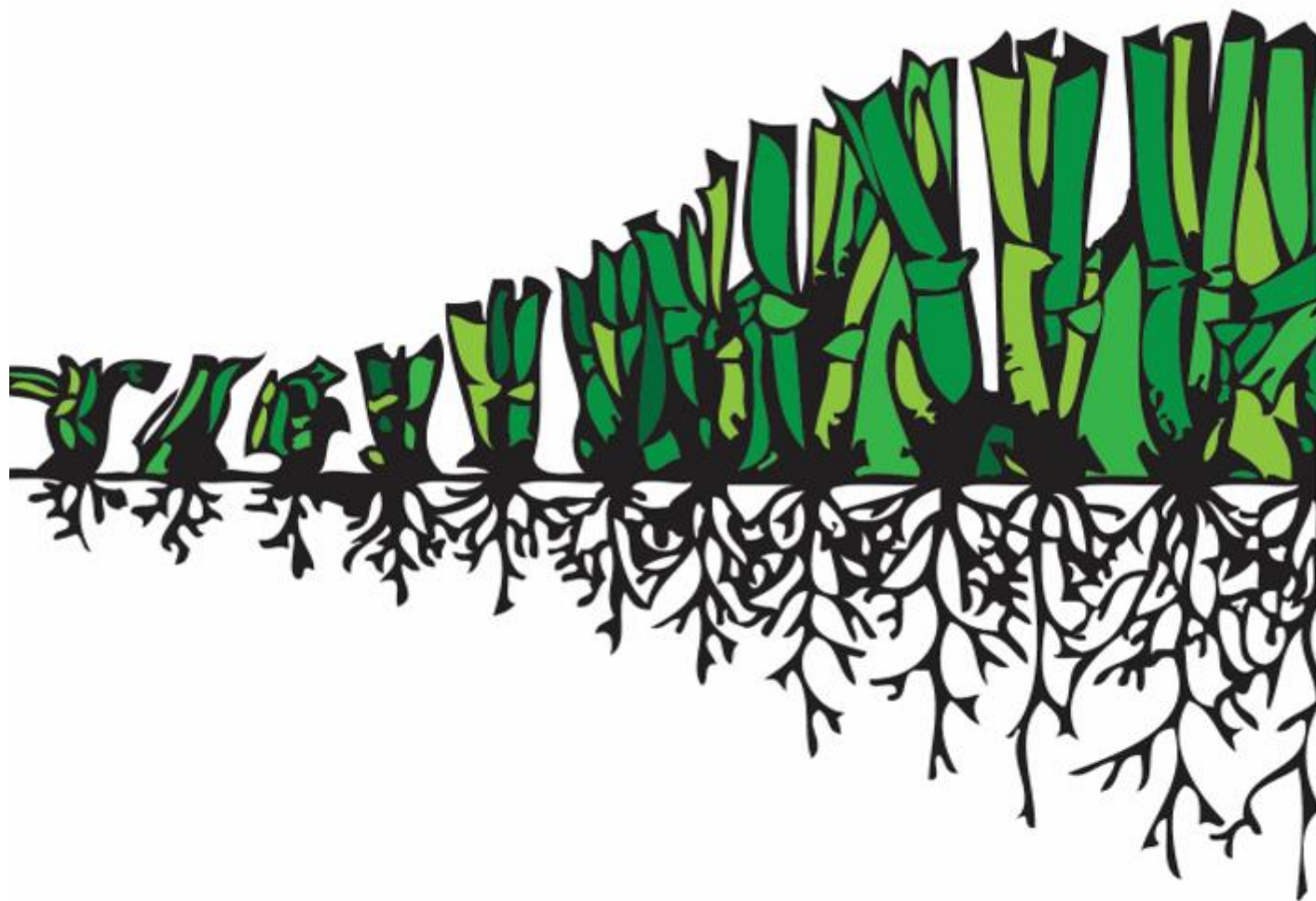


Bermuda - Maintenance

- Mowing height = **1" – 2"** (.5")
- Fertilization recommendations S.FL.
 - Do not exceed **5-7 lbs N/1000 sq ft/year**
 - Split into multiple applications
 - ½ - 1 lb N/1000 sq ft per applications=
- Irrigation of established turf should be based on an as-needed basis
 - ½" – ¾" of water per application
- Thatch management
 - Proper mowing, fertilization & irrigation
 - Verticut or power rake
- Pests and diseases
 - Scout, properly identify, and select for resistance
 - Nematodes, mole crickets, webworms, armyworms, mites, dollar spot, large patch, etc.



Photo credit: Tyler Jones,
UF/IFAS



Athletic Field

Lawn

Utility Turf

Shade Tolerance

Full Sunlight

Partial Shade

Shade Tolerant

Bermudagrass

Bahiagrass

Zoysiagrass

Dwarf St. Augustinegrass

- 'Empire'
- 'CitraZoy'

- 'Seville'
- 'Delmar'

Seashore Paspalum

Centipedegrass

St. Augustinegrass

- 'CitraBlue'
- 'Provista'

Managing Turf in the Shade

- Reduce shade (trim trees)
- Reduce traffic
- Reduce irrigation
- Reduce fertilization; promoting growth will stress the turf
- Increase mowing height
- Select a more shade-tolerant groundcover or mulch



Pests & Diseases

Insects

- Turf caterpillars
- Scarab beetles
- Chinch bugs
- Hunting billbug
- Mole crickets
- Scale insects & mealybugs



Diseases

- Gray Leaf Spot
- Large Patch
- Take-all Root Rot
- SCMV/LVN



Nematodes

Weeds



	Bahia	Bermuda	St. Aug.	Zoysia	Centipede
Region	Statewide	Statewide	Statewide	Statewide	Statewide (acidic soils)
Maintenance	Low	Medium-High	Medium	Medium	Low
Establishment Method	Seed, sod	Seed, sod, sprigs, plugs	Sod, plugs	Sod, plugs, seed	Seed, sod, plugs
Wear	Poor	Excellent	Fair	Excellent	Fair
Drought	Excellent	Excellent	Good	Excellent	Good
Soil	Acid	Wide range	Wide range	Wide range	Acid
Shade	Fair	Poor	Good- excellent	Good- excellent	Fair
Nematode tolerance	Excellent	Poor	Good	Good	Poor





Dwarf Fakahatchee Grass

Tripsacum floridanum

Zone: 8A – 10B

Size: Mature height of 2 – 3 feet with a spread of 2 – 3 feet

Drought Tolerant

Wildlife Plant



Photo by S. P. Turnipseed

Muhly Grass

Muhlenbergia capillaris

Zone: 8A – 11

Size: Mature height of 2 – 4 feet with a spread of 1 – 4 feet

Drought Tolerant

Wildlife Plant



Frogfruit, Turkey Tangle

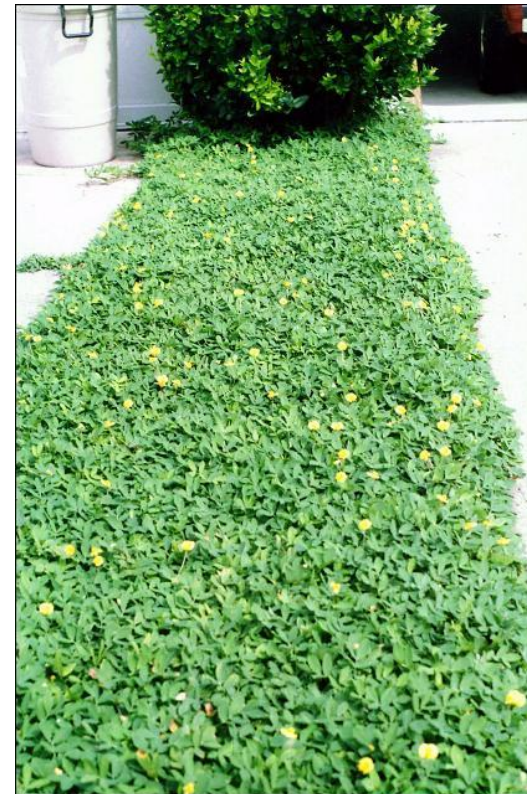
Phyla nodiflora

Zone: 8A – 11

Size: Mature height of 6 inches

Blooms all year

- Full sun to part shade
- Moderate moisture (not drought or flood tolerant)
- Several butterflies use it as a host and nectar plant.
- In low traffic areas, it can be a great replacement for lawn.



Perennial Peanut

Arachis glabrata

'Ecoturf' or 'Arblick'

Size: Mature height of 6 inches

Grows by rhizomes

- Full sun to part shade
- Drought tolerant – heat and humidity
- Blooms great for pollinators
- Low traffic areas
- Low fertilizer needs
- Mow 3"-4" every 3-4 weeks



Tropical Puff

Neptunia pubescens

Zone: 8B – 11

Size: Mature height of 3-6 inches

Drought Tolerant

Host and Nectar Plant



Sunshine Mimosa

Mimosa strigillosa

Zone: 8B – 11

Size: Mature height of 3-6+ inches

Very Drought Tolerant

Host and Nectar Plant

Photo credit:
NaMa Native
Landscapes

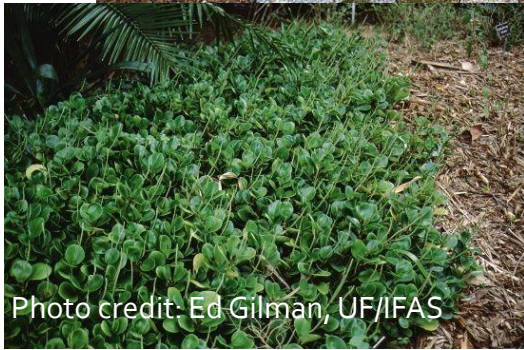


Photo credit: Ed Gilman, UF/IFAS

Peperomia

Peperomia obtusifolia

Zone: 10A – 11

Size: Mature height of 6-8 inches

Shade Tolerant



Photo Credit: Keri
Ruder, FNPS



Clinopodium brownei
Photo by Shirley Denton

Browne's Savory

Clinopodium brownei

Zone: 8A – 10B

Size: Mature height of up to 6 inches

Wet areas (ditch, swale, rain garden)

Nectar Plant

Fragrant when break the leaves

Photo credit:
George Gann,
IRC



Photo credit: Susan Lerner,
Pan's Garden, IRC

Oblongleaf Twinflower

Dyschoriste oblongifolia

Zone: 8A – 10B

Size: Mature height of up to 1 foot

Drought Tolerant

Host and Nectar Plant



Photo credit:
Shirley Denton,
IRC



Photo credit:
George Gann,
IRC

Swamp Twinflower

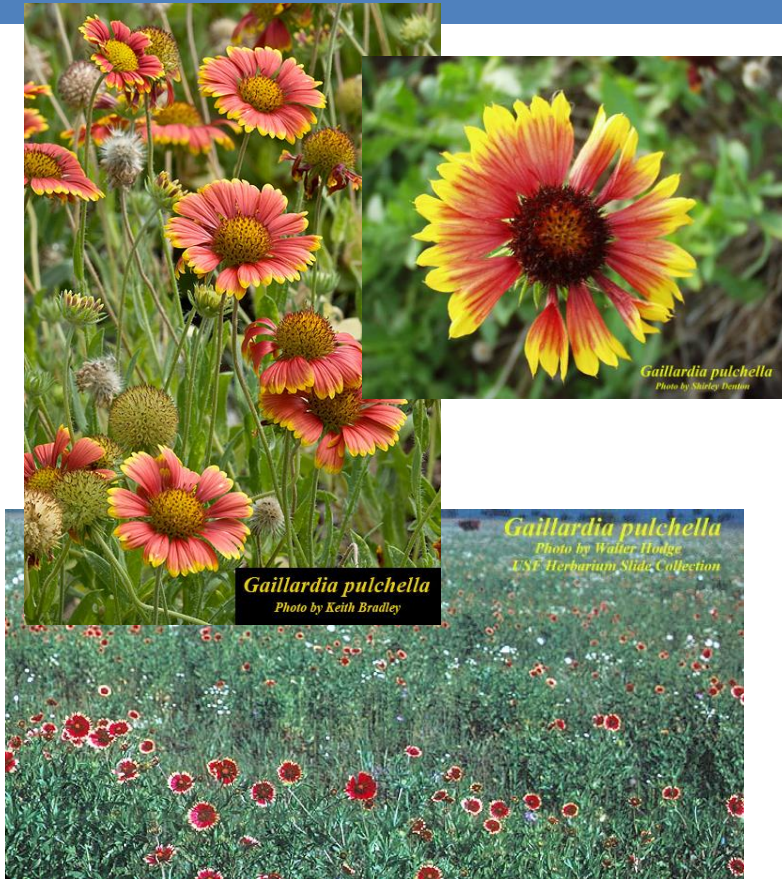
Dyschoriste humistrata

Zone: 8B – 10A

Size: Mature height of 6 inches

Wet areas (ditch, swale, rain garden)

Host and Nectar Plant



Blanket Flower

Gaillardia pulchella

Zone: 3 – 11

Size: Mature height of .5-2 ft

Drought Tolerant

Summer-Fall peak flowering

Pollinator and Wildlife Plant



Helianthus debilis subsp. *debilis*. Credit: M. Leonard-Mularz, UF/IFAS



East Coast Dune Sunflower

Helianthus debilis subsp. *debilis*

Zone: 8A – 11

Size: Mature height of 1-3 ft

Very Drought Tolerant

Blooms all year

Pollinator and Wildlife Plant



Bacopa caroliniana
Photo by Guy Anglin



Bacopa monnieri
Photo by J. & J. Balaban
USF Herbarium Slide Collection

Lemon Bacopa & Waterhyssop

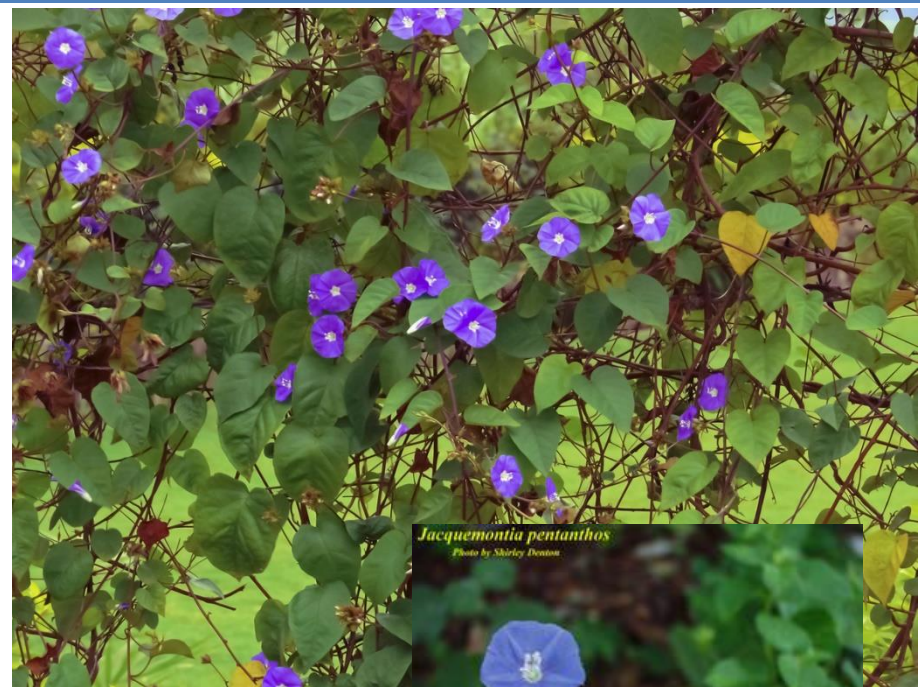
Bacopa caroliniana & *Bacopa monnieri*

Zone: 8A – 11

Size: Mature height of .25 – .5 ft

Likes high moisture areas

Pollinator and Host Plant



Jacquemontia pentanthos
Photo by Shirley Denton

Skyblue Clustervine

Jacquemontia pentanthos

Zone: 10A – 11

Size: Mature height of 12 – 15 feet

Blooms all year, primarily in fall

Pollinator and Wildlife Plant



Photo credit: Tyler Jones,
UF/IFAS

More Ground Covers

Asiatic Jasmine Minima – *Trachelospermum asiaticum*, Zone 8-10

Basketgrass – *Oplismenus burmannii* & *setarius*, Zone 8A-10B

Blue Porterweed – *Stachytarpheta jamaicensis*, Zone 9B-11

Elliott's Love Grass – *Eragrostis elliottii*, Zone 8A-10B

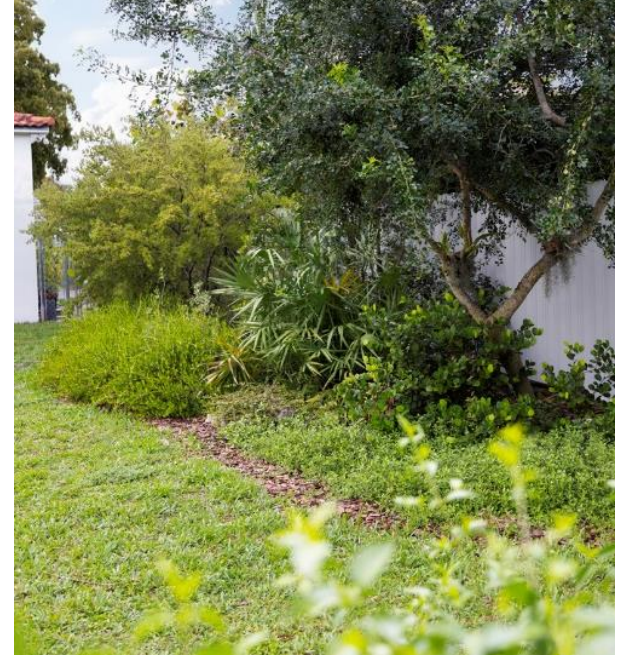
***Pinewoods Dropseed** – *Sporobolus junceus*, Zone 8A-10B

***Purple Love Grass** – *Eragrostis spectabilis*, Zone 8A-10B

***Railroadvine** – *Ipomoea pes-caprae* subsp. *brasiliensis*, Zone 8B-11

***Spartina** – *Spartina bakeri* & *patens*, Zone 8A-11 & 9A-11





Resources

- UF/IFAS askifas
 - <https://edis.ifas.ufl.edu/>
- Florida-Friendly Landscaping™
 - <https://ffl.ifas.ufl.edu/>
- Florida Native Plant Society
 - <https://www.fnps.org/plants>
- Institute for Regional Conservation – Natives for Your Neighborhood
 - <https://www.regionalconservation.org/beta/nfyn/default.asp>
- Atlas of Florida Plants, USF Herbarium
 - <https://florida.plantatlas.usf.edu/>
- Florida Association of Native Nurseries
 - <https://www.fann.org/plants/>



The Institute for Regional Conservation

Conservation of rare plants, animals, and ecosystems



Thank you!

Questions?

Phone # : (561) 233-1750

Email: mastergardener@pbcgov.org

Facebook page: UF/IFAS Palm Beach
County Master Gardener Volunteers

Visit us: 531 N Military Trail
West Palm Beach

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