

## OBJECTIVES

### Turfgrass

- Right plant, right place
- Right care – best management practices

### Chemical applications

- Weed control & herbicides
- Insect and disease control & pesticides
- Fertilizers – dos and don'ts



## RIGHT PLANT, RIGHT PLACE

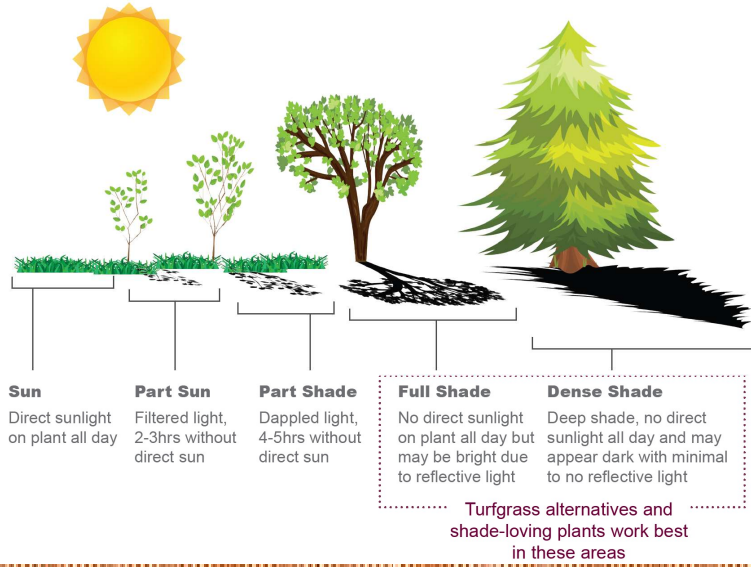
### Shade Tolerance

- Bahiagrass – 8-10 hours full sun
- St. Augustinegrass – 6-8 hours full sun
  - 30% dappled
  - Fewer inputs

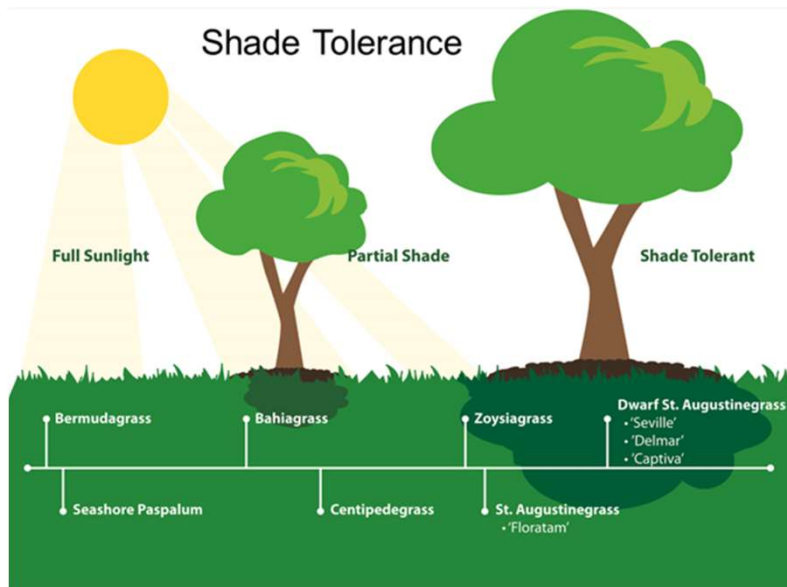
### Functional purpose of the turf

### Irrigation

# RIGHT PLANT, RIGHT PLACE



## Shade Tolerance





## RIGHT CARE

- **Mowing height**
  - Bahiagrass – 3-4"
  - St. Augustinegrass – 3-4"
  - No more than 1/3 of the blade
- **Irrigation**
  - ¾" per application
  - Calibrate system
  - Don't mix heads/zone
  - Overlapping coverage
  - Deep, infrequent
- **Thatch & clippings**

## WEEDS & WEED CONTROL

Grassy, broadleaf, sedges – mostly annuals

Timing is critical

- Pre vs. post-emergence control (not eradication)
- **Pre-emergence** for Central Florida is Feb. 15 (4-5 days of 65-70°)
- 2<sup>nd</sup> app at 6-9 weeks
- Don't use pre-emergence herbicides 2-4 months before sod/seed
- Post-emergence – spray when young, don't mow prior

Read the fine print – cultivar dependent

- Bahiagrass – 2, 4-D
- St. Augustinegrass – atrazine; no good selective herbicides

Spot treatments

## DISEASES

- **Take-all root rot**
  - Preventative fungicides
  - No suppression
- **Large patch disease**
  - Preventative
  - Suppressive
- **Seasonality**
- **Cultural controls are the key**
  - SRN fertilizers
  - Proper fertilization & irrigation
  - Proper cultural methods



## INSECT PESTS

- **Bahiagrass**
  - Mole crickets
    - Spring adults
    - Summer nymphs – key to control
- **St. Augustinegrass**
  - Chinch bugs
    - Preventative and suppressive
- **Key – control the weeds = control the pests/disease**
- **Monitoring procedures**
- **Insecticides at damage threshold**
- **Label is the law!**



## FERTILIZER BMPS

- **SRN fertilizers**
  - Equal parts N to K
  - Low to no P required
  - Soil test – soil pH
- **Not before rain event**
  - Irrigate with ½"
- **Only during active growing season**
  - March/April – October

Sample Fertilizer Label 16-0-8	
GUARANTEED ANALYSIS	
Total Nitrogen (N)	16.00%
4.0% Ammoniacal Nitrogen	
12.0% Urea Nitrogen*	
Soluble Potash (K <sub>2</sub> O)	8.00%
Sulfur (S)	4.00%
4.0% Combined Sulfur (S)	
Iron (Fe)	2.00%
0.2% Water Soluble Iron (Fe)	
Manganese (Mn)	1.00%
0.11% Water Soluble Manganese (Mn)	
Derived from: Polymer-coated urea, urea, ammonium sulfate, potassium chloride, iron sucrate, manganese sucrate.	
*8.0% slowly available nitrogen from polymer coated urea.	

$$8/16 = 0.5 \times 100 = 50\% \text{ SRN}$$

## FERTILIZER DETAILS

- **Bahiagrass – 2-4 lbs. N/1,000 ft<sup>2</sup> annually**
- **St. Augustinegrass – 2-5 lbs. N/1,000 ft<sup>2</sup> annually**
- **0.5-1.0 lb N/1,000 ft<sup>2</sup> max per application**
  - 30% SRN up to 1 lb.
  - Below 30% SRN up to 0.5 lb.
- **Calibrate spreader**