BMPs for Turfgrass Management

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BMP 1
Selection & Adaptation

Considerations
Usage & Expectations

- Traffic
  - Wear
  - Soil Compaction
- Soil Stabilization
  - Roadsides
- Turf Quality
  - Bahia is not a high quality turf
Adaptation & Selection

Climatic Zones & Microclimates

- Zone 6b
  - 0 to -5\(^\circ\) F
- Zone 7a
  - 5 to 0\(^\circ\) F
- Zone 7b
  - 10 to 5\(^\circ\) F
- Zone 8a
  - 15 to 10\(^\circ\) F
- Zone 8b
  - 20 to 15\(^\circ\) F

Turfgrass Cultivars

Supply

- Find local grower
- costs – drop charges, fuel sur-charge
- www.GeorgiaTurf.com
- Turfgrasses link
- Ga. Crop Improvement Asson.
- www.certifiedseed.org

Warm-season Turfgrasses
Centipedegrass

Vegetative & Seeded
☆ Common
  ✓ Medium texture
  ✓ Minimum maintenance
☆ TifBlair
  ✓ Cold Hardy
  ✓ Low pH (4.2)

New Kid on The Block
‘TifBlair’

✓ Seed or Sod
✓ Cold Tolerance
✓ Vigor at low pH
✓ More & faster growing stolons

‘TifBlair’ Characteristics

<table>
<thead>
<tr>
<th>Total Stolons</th>
<th>Common</th>
<th>TifBlair</th>
<th>LSD (0.05)</th>
</tr>
</thead>
<tbody>
<tr>
<td>per plant</td>
<td>7.9</td>
<td>9.2</td>
<td>0.9</td>
</tr>
<tr>
<td>&gt; 2 inches</td>
<td>1.5</td>
<td>2.1</td>
<td>0.5</td>
</tr>
<tr>
<td>Length / plant (inches)</td>
<td>37.6</td>
<td>46.4</td>
<td>7.0</td>
</tr>
</tbody>
</table>
Centipedegrass

**Seeding**
- ✓ ¼ to 1 pound / 1000 ft²
- ✓ Seed and Mulch
  - ✓ 9.7% PLS
  - ✓ 5 lbs / 2,000 ft²
  - ✓ ½ lbs / 1,000 ft²

St. Augustinegrass

**Varieties**
- ✴ Raleigh - coarse
- ✴ Palmetto - coarse
- ✴ Mercedes - coarse
- ✴ Floratam – v. coarse
- ✴ Others
  - ✓ Fine texture
  - ✓ dwarf

St. Augustinegrass Cultivars

**Mid- to North-Georgia**
- ✴ ‘Raleigh’, ‘Palmetto’, ‘Mercedes’
- ✴ Cultivar dependence
  - ✓ shade
  - ✓ cold
- ✴ Limited production
- ✴ No real seed option
St. Augustinegrass

Management
☆ Mowing
  ✓ 2 to 3 inches
  ✓ Rotary Mower
☆ Fertilization
  ✓ 4 to 5 lbs N / 1000 ft² / yr
  ✓ Complete Fertilizer

Bermudagrass Cultivars

Vegetative
☆ Shade – ‘Celebration’
☆ Certified grass
  ✓ encourage the consumer
☆ Putting green cultivars

Bermudagrass Cultivars

Seeded
☆ ‘Princess 77’, ‘Riviera’, ‘Sahara’
☆ Availability
☆ Seeding rate – 1 lb / 1000 ft²
☆ Cost
  ≈ $30 / lb for 1000 ft²
  ≈ $75 / pallet for 500 ft² pallet = $150 / 1000 ft²
Zoysiagrass Cultivars

Vegetative
☆ ‘Emerald’ & ‘Meyer’
✓ old but still widely grown
✗ ‘Emerald’ problems

‘Emerald Zoysiagrass’

‘Emerald’ Zoysiagrass

Problems in the Landscape
☆ Green-up
 ✓ Early - March
 ✓ Late - May
☆ Seed heads
 ✓ Sparse
 ✓ Prolific
‘Emerald’ Zoysiagrass

Whose problem?

- **Home owner**
  - Purchase from retailer
  - Several growing seasons
  - Don’t know producer

- **Landscaper**
  - ? Spray application
  - $ Costly to correct

‘Emerald’ Zoysiagrass

How widespread?

- **Atlanta**
  - Observed for several years
  - Retailer, landscaper
  - Producer in Alabama

- **Augusta**
  - Spring 2005
  - Producer in Alabama

‘Emerald’ Zoysiagrass

What’s going on?

- **Varietal differences**
  - Plant collections
  - Known ‘Emerald’
  - DNA fingerprint

- **Source**
  - Retailer / broker
  - Producer

DNA Fingerprint
‘Emerald’ Zoysiagrass
Recourse
☆ Certified grass
✓ GCIA
☆ Identify Georgia Producers
✓ Plant sampling
✓ www.GeorgiaTurf.com
☆ Re-establish from within lawn
✓ Plugs or Sprigs

‘Emerald’ Zoysiagrass
Results
☆ Clade 1
  ✓ Early transition
  ✓ Similar to NTEP Plots
☆ Clade 2
  ✓ Late transition
  ✓ Non-certified
☆ One outlier (C14)

Phylogenetic Tree

Seashore Paspalum
Vegetatively Established
☆ Older selections
✓ Adalayd / Excaliber, Futurf
☆ Newer selections
✓ Salam, Sea Isle I, Sea Isle 2000, Sea Isle Supreme
Cool-season Grasses

Blends & Mixtures

Blends
- two or more cultivars from the same species
  (Millennium & Plantation Tall Fescue)

Mixture
- combination of two or more species
  (Tall Fescue & Poa trivialis)

Turf-type Tall Fescue

General Characteristics
- Finer-textured
- Denser stands
- Genetically darker green color
- Over 150 cultivars
  www.NTEP.org
**Tall Fescue**  
*(Festuca arundinacea)*

**Establishment**
- Seeding Rate
  - 5 to 8 lbs per 1000 ft²

**Interseeding**
- Match the existing stand
  - (3 to 5 lbs per 1000 ft²)

**Cold injury on tall fescue**

**Tall Fescue Cultivars**

**Homeowner**
- Big box retailer
  - limited selection
  - most are blends
  - more based on seed production
  - greater cost for strait cultivar
    - ≈ twice the cost for a blend

**Tall Fescue Cultivars**

**Homeowner**
- Rebels – ‘Exeda’ & ‘Sentry’
- ‘Plantation’
- RTF
- Old standards
  - ‘K-31’
Tall Fescue
Rhizomatous Tall Fescue (RTF)
✓ Rhizomes – occasional & short
✓ Stolons - none
✓ ‘Grande II’ & ‘Labarinth’
  ✓ Good to Acceptable
? $20 / 10 lbs
☆ 5 to 10 lbs / 1000 ft²

Tall Fescue Cultivars
Commercial
☆ Better selection
☆ Rebels – ‘Exeda’ & ‘Sentry’
☆ ‘Plantation’
☆ Others
**Kentucky Bluegrass**

**Heat Tolerant**
- ✓ Rhizomes
- ✓ ‘Thermal Blue’
  - ✓ Hybrid between Texas bluegrass & Kentucky bluegrass
  - ✓ *Poa arachnifera x P. pratensis*

**Performance**
- $\$10 / 3 lbs / 1,300 ft²

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**Kentucky Bluegrass**

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**Turfgrass Management BMPs**

2. Know your grass
3. Rootzone preparation & establishment
4. Mowing
5. Fertilization
6. Water management
7. Pest management
Important Dates in 2007

WinterGreen 2007
Athens - Jan. 25 & 26

Green-up 2007
Perry – Feb. 13

Rome-N the Green 2007
Rome - Feb. 15

Southeastern Turf Conference
Tifton - May 7 & 8

Thank You

Visit
www.Georgiaturf.com
and
www.Turfgrasswater.com