Selecting and Maintaining Turf for Florida Friendly Landscapes

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What Makes a Lawn Low Maintenance?

• Do low inputs mean low quality?
Does a “Nice” Lawn Mean a Lot of Work?
Low Maintenance Lawns

• What are expectations for the lawn?
• What uses will the lawn receive?
• What are the site conditions?
• How much time/money will be spent on maintenance?
• Are there any community landscaping requirements to consider?
What Role Does Turfgrass Play in Our Landscapes?

**Functional:**
- Filters stormwater runoff
- Traps and filters potential pollutants
- Holds soil in place
- Reduces heat, noise, glare
- Reduces dirt brought into home
- Takes up air pollutants
- Serves as fire break
- Safe play area (pets and humans)

**Aesthetic:**
- Safe play area
- Extends outdoor living space
- Increased property values
- Compliments and ties together the rest of the landscape
Is Turfgrass Florida Friendly?
Low cut grass burns under extreme conditions, however, additional fuel, called "synergist", brush and trees with dry branches, the fire would spread quickly or continue to grow. This would create more fuel and extreme conditions.

This area was a planned fuel break that was consistently maintained. It helped save the entire complex during the Diamond Bar fire.
How Is Turf Florida Friendly?

Florida Friendly Landscaping Principles

1. Right Plant, Right Place
2. Water Efficiently
3. Fertilize Appropriately
4. Mulch
5. Attract Wildlife
6. Manage Yard Pests Responsibly
7. Recycle
8. Prevent Stormwater Runoff
9. Protect the Waterfront
What is the First Step in Florida Friendly Turf Management?

RIGHT PLANT, RIGHT PLACE!
Bahiagrass

- Low requirements for water and fertilizer
- Few pest problems
- Seedheads require mowing regularly during summer
- Does not grow as densely as other species
Centipedegrass

- Low requirements for water and fertilizer
- Few pest problems
- Grows low and mowing frequency reduced
- Pale green color
- Susceptible to “take all root rot” aka “Centipedegrass decline” under stress or high fertilization
St. Augustinegrass

- Needs water and fertilizer to remain green and healthy – neither need be applied in excess!
- Grows aggressively by stolons spring-fall
- Adapted to soils and conditions in much of Florida
- Chinch bugs can be problematic
- Best choice for shade
Zoysiagrass – cv. Empire

- Needs **less fertilizer** than St. Augustinegrass to maintain healthy color and condition
- Needs about the **same amount of water** as St. Augustinegrass
- Mowed at about 2-2.5” (rotary mower)
- Dense growth
- Hunting billbugs
- Prone to “large patch” (fka brown patch)
Lower Maintenance Options

- Bahiagrass
- Centipede grass

More Maintenance, Still FFL

- St. Augustine grass
- Zoysia grass
What Else is Included in Florida Friendly Turf Management?

• **Best Management Practices Include:**
  – Fertilizing correctly (rates, timing)
  – Irrigating correctly (amount, frequency)
  – Mowing
  – Integrated Pest Management
Does Fertilizer Play a Role in Nonpoint Source Pollution?

• Two nutrients in plant fertilizer that can pollute
  – N and P
  – If these not taken up by the plant, they may wind up in ground or surface waters
  – Loss of oxygen, fish kills, algae blooms

• We can manage our fertilizer to minimize risk of pollution
Nitrate-N Leaching

• Leaching through soil profile – this is what nitrogen will do in sandy soils
• Nitrate ion and sand soils are both negatively charged
Surface Water Runoff

Carries anything on impervious surfaces

- Storm drains lead directly to water bodies
- Intense rains can lead to runoff loading
- Slow release nitrogen sources, phosphorus
Fertilization Best Management Practices

• Soil test! What is your pH and how much of the needed nutrients do you have in your soil?
• Apply fertilizer at the correct rate for your lawn species
• Apply fertilizer at the correct time – when the grass is growing
• Know how much fertilizer you are applying
• Clean up spilled fertilizer
• Do not fertilize before a heavy rain
• Leave a 10’ unfertilized buffer strip by water bodies
• Irrigate fertilizer in with approx. ¼” of water
Put Your Soil to the Test

- Soil testing should provide the basis for determining a fertility program
- This includes pH testing as well as extractable levels of macro and micronutrients
- Do not soil test for N, as it is very mobile
Fertilizer BMPs for Turfgrass

- Do not apply nitrogen fertilizer at excessive rates – stick to the UF-IFAS recommendations
### Annual Fertilization Rates for Lawngrasses in North Florida
(Lbs. of N per 1,000 sq. ft.)

<table>
<thead>
<tr>
<th>Grass Type</th>
<th>Current</th>
<th>Revised</th>
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<tbody>
<tr>
<td>Bahiagrass:</td>
<td>2-3</td>
<td>1-2</td>
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<tr>
<td>Centipedegrass:</td>
<td>1-2</td>
<td></td>
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<tr>
<td>St. Augustinegrass:</td>
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<td></td>
</tr>
<tr>
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Most zoysia cultivars should get no more than 2 lbs yearly.
### Annual Fertilization Rates for Lawngrasses in Central Florida
(Lbs. of N per 1,000 sq. ft.)

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Most zoysia cultivars should get no more than 2 lbs yearly.
### Annual Fertilization Rates for Lawngrasses in South Florida

(Lbs. of N per 1,000 sq. ft.)

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Most zoysia cultivars should get no more than 2-3 lbs yearly.
How Much to Apply Each Time

• Frequency of application: 1-4 times yearly (how often do you all think I fertilize my lawn? )

• Each application: maximum amount to apply is 1 lb N per 1,000 sq. ft. if fertilizer has slow-release N

• Only fertilize during the growing season

• North/Central Florida: April - September
When Should We Fertilize?

Fertilize turf during times of active growth
Fertilizer BMPs

• Do not fertilize newly planted (sodded, seeded) turf for 30-60 days after planting
  – Without an established root system, turf not able to take up the nutrients
  – This will not impair turf quality or establishment time – water more important during establishment

• Do not soil incorporate any fertilizer prior to planting – compost/organic matter OK
Fertilizer BMPs for Turfgrass

- Remove fertilizer granules from impervious surfaces
- Load fertilizer away from wells and water bodies, preferably on a pad or tarp to make clean up easier
Fertilizer BMPs for Turfgrass

- Fertilizer granules need to be applied to turf – these granules will still run off with water or rain
- Does not matter if water soluble or slow release N source
Unfertilized Buffer Zones

Leave a 10’ buffer zone around water bodies
Deflector shields keep fertilizer granules away from water
Irrigating Fertilizer In

Use about ¼” water to wash fertilizer into soil, not further down past roots

Don’t use rainfall to wash fertilizer in!
Turf Irrigation BMPs

• Frequency of irrigation
  – Grass species
  – Season
  – Soil
  – Shade

• Amount to water

• Calibrating

• Inspecting
Turfgrass Irrigation BMPs

- **Irrigation Frequency:**
  - Winter: every 14-21 days
  - Spring: 3-5 days
  - Summer: 2-3 days
  - Fall: 3-5 days

- Varies between (and within) yards

- Monitor for wilt and water when 30-50% of the yard shows wilt to avoid overirrigation

- WMD restrictions do not always allow for this
How Often to Water

• The most efficient way is to apply water when turf begins to show signs of stress:
  – bluish gray color
  – footprints remain
  – leaf blades folded in half
How Much to Water

- An efficient watering only wets the turfgrass root zone, does not saturate the soil, and does not allow water to run off.
- Apply ½ to 3/4” water when turf shows symptoms of wilt
- Do not apply more water until stress symptoms appear again
Short, frequent irrigations

Longer, less frequent irrigations
Turfgrass Irrigation BMPs

• Water about $\frac{1}{2} - \frac{3}{4}''$ each time (may vary depending on soil)
• The amount applied does not change, just the frequency of application
• Don’t be afraid to change irrigation controller OR turn it to OFF and only turn it on when grass is wilting
• Remember that rain shutoff sensor is state law for all irrigation systems installed after 1990
Calibrating the Irrigation System
Inspect the Irrigation System

- Watch for broken or misaligned heads, leaks, etc.
- Watch for alignment/overspray – don’t water the driveway
- Watch for shrubs that have matured and may now be blocking sprinkler
Mowing – The Cultural Practice Most Often Done Incorrectly

"I didn't have time to cut the lawn, so I used your credit card to have it carpeted. Do you like the cool color I picked out?"
Mowing

• Mow at highest recommended height for species
• Don’t remove more than 1/3 of the leaf blade at any one time
• Leave clippings on the ground
• Increase mowing height under any environmental stress (shade, drought, etc.)
Influence of mowing height on rooting depth
Mowing Height and Rooting Depth

• Low mowing forces grass to put all energy into regrowing the shoot system

• This allocates less material for root growth

• What happens to grass that has a short root system?
  – Drought stress
  – Traffic
  – Salinity
Mowing Heights

• Know the correct mowing heights for your grass species and conditions
  – Bahiagrass 3-4”
  – Bermudagrass 0.75-1.5” (use dependent)
  – Centipedegrass 1-1.5”
  – St. Augustinegrass 3.5-4”
  – SA dwarf cultivars 2-2.5”
  – Zoysiaagrass (Empire) 2-2.5”

Turfgrass Science
Mowing Too Tall

- Grass loses aesthetic appeal
- Increased thatch
- Potential loss of density
- Stolons may become airborne in St. Augustinegrass and centipedegrass
In Summary

• Low Maintenance
  – Bahiagrass
    • Mow (weekly summer)
    • Fertilize (?)
    • Scout for weeds
  – Centipedegrass
    • Mow (2 weeks summer is OK)
    • Fertilize (1-2 times/yr)
    • Irrigate during drought
    • Scout for weeds
In Summary

• Low Maintenance
  — St. Augustinegrass
    • Mow (weekly summer)
    • Fertilize (Depending on location in state, 2 or more times/yr)
    • Irrigate during drought
    • Scout for pests
  — Zoysiagrass
    • Mow (weekly summer)
    • Fertilize (2 or more times/yr)
    • Irrigate during drought
    • Scout for pests
Remember that lawns can be part of Florida Friendly Landscaping –

It’s all in how you manage them!

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