

HORTICULTURAL HEADS-UP!

(Sec. 22 Landscape Committee, 6/21/03, revised 9/29/08 to include reference to the Lee County Ordinance #08-08 regulating landscape management practices)

*(Primary source for the following information: Florida Green Industries, *Best Management Practices for Protection of Water Resources in Florida*, Department of Environmental Protection, June 2002.)*

Maintaining a healthy landscape means less money spent on corrective measures. Good cultural practices can reduce pesticide, water and fertilizer usage. Here are some heads-up items to make that possible.

Good horticultural practices include:

- Selecting of the right plant for the right place
- Using plants that have been bred to resist disease, pests (including nematodes), and which can withstand drought. At Burnt Store Marina, add to the list...plants that are salt tolerant. Salt tolerant plants tend to be more tropical and therefore can be frost tender.
- Plants that are stressed by inappropriate cultural practices fall prey to disease and insects. In the case of turf, stress also leads to the invasion of weeds.
- Turf – the mowing height is critical to the plant's stress level. 4" is ideal.
- Pruning – pruning out dead, diseased and weak wood enhances health. Over pruning or pruning at the wrong time of the year creates stress.
- Fertilizing – inadequate amounts produce weak growth. Conversely, over fertilizing causes a plant to become susceptible to pests and diseases. Too much fertilizer also creates additional maintenance.
- Irrigating – The average amount of rainfall in SW Florida is 52 inches. Most of it falls June through September. But, that is also the time of the highest amount of heat. Even in the summer, plants must be watched and supplemental water added when needed. Moisture is lost through evaporation from the ground and through transpiration from the foliage.
- Poor care produces stress in plants. Stress kills. It may not be immediate, but over time it will shorten the plant's life expectancy.

Read on for particulars...

I. Comparison of St. Augustine Floratam and Annual Bahiagrass

	St. Augustine Floratam	Annual Bahiagrass
Mowing Height (inches)	3-4"	3-4"
Mowing Frequency	5-14 days, depending on season	7-17 days, depending on season
Preferred Mower Type	Rotary	Rotary/Flail
Soil	Wide Range	Acid, Sandy (Note: BSM soil is alkaline)
Drought Tolerance	Medium	Good
Salt Tolerance	Good	Very Poor (Note: BSM irrigation water is high in Total Dissolved Solids/Salinity)
Shade Tolerance	Fair to Good	Poor
Wear Tolerance	Poor	Poor
Nematode Tolerance	Good	Very Good
Maintenance Level	Medium	Low
Establishment Methods	Sod, Plugs, Sprigs	Seed, Sod

II. When Planting Shrubs and Ornamentals

- A. Remove all soil from the uppermost portion of the root ball, exposing the top root that starts at the trunk of the plant. (Referred to as the root flare.)
- B. Dig a hole whose depth is 10% less than the height of the root ball, but is at least 1 ½ times the width.
- C. Place the plant into the hole, fill in with soil, leaving the exposed uppermost root.
- D. Make a well around the plant and water thoroughly.
- E. Apply 2-3 inches of organic mulch, but do not allow it to touch the stem/trunk.
- F. Trees – Stake using a 3-point system, allowing the tree to flex in the wind and without rubbing. Remove the stakes after the tree is established.

III. Lawns –

- A. Knowing when to water - Color turns blue-gray, leaf blade folds in half, when stepped upon the foot print remains.
- B. Nitrogen or Iron? Nitrogen promotes lush growth. But that is not always desirable. New growth when temperatures are dropping in the winter can be damaged. Lush fast growth in the summer can encourage fungal diseases. Iron will green the turf without causing a growth spurt.
- C. Mowing less than the recommended height robs the turf of tissue to provide photosynthesis. Essentially, it handicaps its ability to be healthy.
- D. Growing turf in shade – Increase the mowing height, decrease watering and fertilizer, and watch for disease and weed invasions. If these practices fail, consider a different ground cover for that area.

IV. Irrigation Systems

- A. Do not water hard surfaces.
- B. When laying out a new system, a triangular formation for the spacing of the heads provides better coverage than a square formation.
- C. Use a tuna fish-sized can placed in various areas to catch irrigation water. Take note of the length of time the water was on. Then measure with a ruler the depth of the water in each can. Uniformity of distribution and quantity/time information is easily gathered this way.
- D. Ideally, systems that wet only the ground surface and not the foliage are the most efficient and least affected by wind. Types of systems include microsprinklers and microsprayers.
- E. When plants are actively growing, they will need $\frac{1}{2}$ - $\frac{3}{4}$ " of moisture every 2-3 days. That lengthens to every 10-14 days during more dormant times. One inch of water will wet the ground to a depth of 12" in sandy soil.
- F. Drought tolerant plants that are established (3-5 years) require little/no supplemental irrigation.
- G. An irrigation specialist can measure the efficiency of irrigation water patterns. Some common problems include obstructions, leaks, low water pressure, lack of irrigation uniformity, and clogged heads. Replacing pop-up heads in the lawn with the 6" type should be considered when making repairs. The longer shaft provides better coverage.
- H. "Rain shut-off devices, which are required by law, and rain gauges should be placed in open areas to prevent incorrect readings." (Dept. of Environmental Protection, *Best Management Practices for Protection of Water Resources in Florida*)
- I. Fresh water availability is becoming a problem in Florida due to the pressure of development. Strongly consider planting drought tolerant plants and incorporating Best Management Practices in landscape maintenance.

V. Mulching

- A. Use mulch from recycled materials, keeping the depth approximately 2-3 inches deep.
- B. Do not place mulch up against any shrub, ground cover, tree, palm, annual or perennial's stem or trunk. Air needs to reach the stem/trunk.

VI. Mowing/Edging

- A. Frequency should be such that no greater than 1/3 of the leaf blade is removed at one time.
- B. Mower blade height should be set at 4 inches.
- C. Mower blade should be sharp and clean. The frayed shredded end of a leaf blade is clear evidence the blade is not sharp.
- D. Recycling lawn clippings by leaving them on the cut turf does not increase thatch build-up. In fact, they break down quickly and provide nutrients back into the soil.
- E. Isolated trees and shrubs within the lawn area should have a minimum 2-foot diameter clearance around them. This will help to keep them from being injured by mowing and edging equipment.

VII. Pruning Landscape Plantings

- A. Pruning can improve the health of a plant. Appropriate pruning removes dead, diseased and weak stems/branches. It promotes strength to withstand winds, flowering/fruitletting, and controls growth. Pruning should be performed on a regular basis, not waiting so long that major surgery is required. Most pruning can be eliminated by planting the right plant in the right spot.
- B. Trees –
 - 1. They cannot be topped, hat-racked or balled without causing significant damage to their structure, thereby creating very weak limbs from forming.
 - 2. All cuts should be clearly thought out, with a clear objective. Health, strength and balance must be maintained.
 - 3. Cuts are to be made so that large limbs do not rip off.
 - 4. Cuts are to be made on the outside of the branch “collar” so that it can heal over in time.
 - 5. Do not apply any sort of sealant to a cut.
 - 6. If the tree is valued for what it offers to the landscape, call an ASA-certified arborist for a professional opinion.
 - 7. Mangroves – The 1996 Mangrove Trimming & Preservation Act, Sections 403.9321-403.9333, Florida Statutes, governs the trimming and alteration of mangroves. Know what can/cannot be done before touching mangroves. A professional mangrove trimmer can be helpful in educating the association/homeowner on what is legal/illegal. The FDEP has a booklet, *Mangrove Trimming Guideline for Homeowners*. It is available in their district offices.

VIII. Disposing of Debris or Spills

Never sweep or hose any debris, clippings, fertilizers, etc. into storm sewer drains, wetlands, bodies of water or septic systems. It is illegal.

IX. Fertilization

Note: Lee Co. Ordinance #08-08 regulates landscape management practices including the application and use of fertilizers containing nitrogen and/or phosphorus within unincorporated Lee County. Within the ordinance is the restriction regarding the timing of application fertilizers...”No person shall apply fertilizers containing nitrogen and/or phosphorus to turf and/or landscape plants during the rainy season (June 1 through September 30 of each calendar year). In addition such topics as Fertilizer Content and Application Rate, Impervious Surface, Buffer Zones, Mode of Application, Low Maintenance Zones and Management of Grass Clippings and Vegetative Material are detailed.

- A. Read the label on the packaging! Then, follow the directions.
- B. Slow and controlled release fertilizers do not flood the soil with nutrients, but instead have mechanisms that delay nutrient availability to the plant.
- C. Resin and/or polymer-coated urea (nitrogen) products are effective slow-release forms and are long lasting during summer’s rainy season.
- D. Get a soil test before dumping fertilizers onto the soil. There’s no reason to apply, and pay, for what is not needed. What isn’t needed becomes a pollutant, quickly leaching through the sandy soil and into our typically high underground water table.
- E. A complete test will provide pH, phosphorus, potassium, magnesium and calcium levels, along with fertilizer recommendations. (Note: nitrogen is not tested due to its ability to easily leach.) Soil testing is performed by the University of Florida IFAS Extension Soil Testing Laboratory (<http://soilslab.ifas.ufl.edu>) in Gainesville. Kits can be picked up at any county Extension Service office. A complete test is \$7.00.
- F. Do’s and Don’ts
 - Do’s -
 1. Fertilize newly planted trees and shrubs.
 2. Fertilize after flooding, or over irrigation, when nutrients have been leached out.
 3. Fertilize trees and shrubs that are **not** near fertilized turf.
 4. Fertilize established plants if they appear lacking in foliage color, density or if they exhibit symptoms directly related to a nutrient deficiency (e.g., chlorosis).
 - Don’ts -
 1. Don’t fertilize newly planted sod until the roots have taken hold, or about one month. (Exception: plugs can be fertilized right away.)
 2. There’s no need to fertilize established trees that are greater than 3-5 years old.
 3. Do not fertilize a plant with nitrogen when it is flowering or fruiting. It may interfere with development.
 4. Don’t apply fertilizer in the winter months. Plants are dormant, or almost so, and cannot take up the nutrients.

(continued)

- G. Palms, They Are Not Trees
 - 1. They have different nutritional requirements.
 - 2. Florida soil tends to be deficient in potassium (K), magnesium (Mg), manganese (Mn), iron (Fe) and boron (B). Additional trace elements may be needed.
- H. Fertilize the soil, not the plant. Broadcast evenly and thoroughly; not in rings around the plants.
- I. Water in the fertilizer. Granular fertilizer left to sit on top of the ground will volatilize, or lose its nitrogen from exposure to the air. Conversely, if fertilizer is applied 8-12 hours prior to a rainfall (1">), it can leach through before being able to benefit the plants.
- J. Nitrogen in an Ammonium Sulfate form is acidifying. That's good news for Burnt Store Marina's alkaline soil.

X. Pest Control (including insecticides, herbicides, fungicide)

- A. Under Florida law (Chapter 482 Florida Statutes) Integrated Pest Management is defined. Essentially it is identifying the pest, determining the pest's life cycle, knowing which stage to target, assessing the size of the population, the damage, and determining what the most effective least toxic method of control will be. "Control" can be as simple as light pruning, spraying with ultra fine horticultural oils, or waiting to see what effect the natural predators will have. Whatever control is used it must be directed where the pest lives and feeds and not be broadcasted where it is not necessary.
- B. Less than 1% of all insects are harmful to plants.
- C. Pest control strategy is appropriate only when there is historical evidence the pest will appear, will cause an unacceptable level of harm or damage, and, that timed preemptive control will lessen the economic and environmental costs.
- D. 3 Categories of Licenses applicable to those involved with the landscape maintenance business: local occupational license, limited certification for commercial landscape maintenance license, or pest control business license and a certified operators certificate. If the contractor is only going to mow, edge, plant and fertilize - a county or municipal occupational license is needed. BUT, if the contractor is going to apply a "weed and feed" to the turf, or anything further to treat for insects, fungus or weeds, additional licensing is required.
- E. Florida pesticide law requires certified applicators to keep records of all restricted use pesticides.
- F. Information on licenses: FDACS Bureau of Entomology and Pest Control 850-921-4177.
- G. Weed Control – Prevention is important. Much of the eradication must be done by hand which is expensive. Application of most herbicides must be done by a licensed pest-control professional.