Rethinking Turf[1]

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The recent ban on the residential use of chlorpyrifos (the active ingredient in Dursban®) has caused quite a stir. Homeowners are now left wondering which insecticide to use to control lawn pests. Since one of the primary modes of exposure to many pesticides is physical contact with treated turfgrass, homeowners should, instead, be asking themselves, "How much grass do I really need in my yard?"

Large areas of turf are necessary for sports fields and school playgrounds, but may not be the best thing for residential yards. The traditional 'immaculate lawn as a status symbol' philosophy carries with it numerous costs, both to the homeowner and to the environment.

An alternative to a lawn of green grass is an attractive landscape composed of mulched planting beds containing ornamental plants and groundcovers, interspersed with narrow paths of grass or stone pavers. Replacing nonessential turfgrass areas in such a way has numerous benefits. For example, it dramatically reduces the amount of lawn care—and since running a lawnmower for one hour produces the same amount of air pollutants as driving a car for 350 miles, reducing lawn area will consequently reduce air pollution.

Florida Yards & Neighborhoods (FY&N) is an educational outreach program designed to train homeowners, landscape maintenance personnel, and other stakeholders how to create and maintain environmentally friendly 'Florida Landscapes,' while also reducing time, energy, and associated costs. The FY&N program advocates a reduction in lawn area in a 'Florida Landscape,' and all nine FY&N principles have direct bearing on this issue.

***Right Plant, Right Place*—Putting the right plant in the right place reduces time, energy, and maintenance of the lawn and landscape.**

- Landscape plants should be grouped according to their water and maintenance needs
- Mulched planting beds or shade-tolerant groundcovers can be used under tree canopies, where grass struggles to grow
- Some alternative turfgrasses—such as seashore paspalum—exhibit excellent drought tolerance and have minimal pest problems and lower nutrient requirements than St. Augustinegrass

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***Maximize Mulch and Groundcover*—Replacing nonessential lawn areas with mulched plant beds or groundcovers has numerous benefits.**

- Mulch and groundcovers increase soil moisture, lower soil temperature, and reduce weeds and plant pests
- To be truly effective, mulch should be applied 3-4" thick (after settling) and should be reapplied semi-annually or annually
- Many attractive and inexpensive groundcover plants are readily available

***Recycle Yard Waste*—Recycling yard waste minimizes municipal solid waste entering the landfill and reduces costs associated with lawn and landscape maintenance.**

- Chipping dead or pruned tree limbs and palm fronds can provide a sustainable source of mulch
- Composting yard waste provides a sustainable source of organic fertilizer
- Leaving grass clippings in place recycles nutrients back into the lawn

***Water Efficiently*—Over-watering is a primary cause of problems in the lawn and landscape.**

- Many common lawn weeds, such as dollar-weed, proliferate under high water conditions
- Root rot from over-watering is a problem in landscape plants, particularly palms and some fruit trees
- Watering infrequently and for a longer duration induces deeper growth of plant and grass roots, thereby increasing their drought tolerance
- Micro-jet irrigation and drip or soaker hoses efficiently water planting beds
- Rain gauges and rain-shutoff devices greatly increase watering efficiency

***Fertilize Appropriately*—Applying the appropriate type and amount of fertilizer will result in a stronger, healthier lawn and landscape.**

- Over-fertilizing turf is a primary contributing factor in chinch bug infestations
- Under-fertilizing palms and some landscape plants causes nutrient deficiencies
- Using a slow-release fertilizer with low phosphorous content and a full micro-nutrient complement, at the recommended rate, is best for turf and landscape plants alike

***Manage or Prevent Diseases & Pests*—Choosing plants and turfgrass that are resistant to common pests and diseases dramatically reduces maintenance demands and costs.**

- Many native plants are inherently resistant to most common pests and diseases
- Alternative control measures for some landscape and turfgrass pests include applications of soaps or oils
- Bio-control products are environmentally safe and are targeted toward specific pests

***Reduce Non-Point Source Pollution*—Reducing fertilizer and pesticide inputs automatically reduces the amount of nutrients and chemicals leaching into groundwater supplies and running off in storm water.**

- Many native landscape plants have few pests and diseases and require minimal fertilizer applications and little or no supplemental irrigation
- Mowing grass high strengthens grass and landscape plants—and a stronger, healthier lawn and landscape will require less maintenance

***Attract Wildlife*—Many inexpensive plants are attractive to wildlife.**

- Most flowering plants attract butterflies
- Fruit trees and berries attract many different kinds of birds

***Protect the Waterfront*—Simple steps can protect waterfront and shoreline areas.**

- Establishing a 20-foot wide 'No Application Zone' along the waterfront will reduce the amount of pollutants ultimately emptying into Biscayne Bay
- Creating swales or raised landscape beds along the waterfront prevents storm water from running off into surface waters
- Planting water-loving plants along the shoreline reduces erosion and increases uptake of nutrients and toxic heavy metals from the water