FERTILIZE APPROPRIATELY

At the most basic level, fertilizers feed plants, helping them to grow better. Did you know that you can choose fertilizers that can direct your plants’ growth in specific ways? Different types of fertilizers encourage plants to develop:

- More or larger blooms
- Greener leaves
- Faster growth
- More fruit

Fertilizing can be done by applying composted organic material, packaged fertilizer or a specific mineral, such as iron. Different types of plants benefit from different fertilizers, so we’ll discuss fertilizing lawns, woody landscape plants and palms in separate sections.

Fertilizing Lawns

Grass that receives appropriate levels of fertilizer — not too little and not too much — produces a dense root and shoot system capable of filtering out impurities or other components of leachate or runoff.

A properly fertilized lawn absorbs nonpoint source pollutants, helps stabilize soil, reduces ambient air temperatures and promotes a healthy ecosystem of its own. Since it grows more vigorously, a properly fertilized lawn might also require fewer cultural or chemical controls for weeds, insects or diseases.

Overfertilizing can aggravate pest problems, stimulate excessive growth and require frequent watering. In addition, when people use too much fertilizer on their landscapes, it can seep through the ground, past the root zone of the grass, plants or trees and into the aquifer. It can also be washed off by rainfall directly into surface water or via stormwater systems.

The way you fertilize your lawn influences how much fertilizer is taken up by grass — and how much might be lost to leaching or runoff. Several factors determine pollution potential from lawn fertilizing. Among these are:

- Type of fertilizer
- How much you apply
- How you apply it
- When you fertilize
- How much irrigation you apply afterwards
- Overall health of the lawn
Mulch

A mulch layer around trees, shrubs, planted beds and covering bare ground provides many benefits. In areas that are difficult to mow, irrigate or otherwise maintain, use mulch to replace turf or groundcovers. Also consider placing mulch in shady areas where plants don’t grow well.

Here are a few simple facts about mulch:

- Organic mulch materials improve soil fertility as they decompose.
- Mulch buffers soil temperature, keeping soils warmer in winter and cooler in summer.
- Mulch helps maintain soil moisture by reducing evaporation. A layer of mulch also minimizes water needs for established plants.
- Fresh mulch inhibits weed germination and growth.
- Over time, many types of mulch improve soil aeration, structure and drainage.
- A mulch layer can inhibit certain plant diseases.
- Mulch around trees and shrubs (not against the trunk) eases maintenance and reduces the likelihood of damage from string trimmers.
- Mulch gives planting beds a neat and uniform appearance, adding a contrast of color and texture that complements plantings.
Guidelines for Using Mulch

Follow these tips when adding mulch to your landscape:

- For well-drained sites, apply a 2–3 inch layer (after settling) of mulch around trees, shrubs and bedding plants. If there are drainage problems, use a thinner layer. Coarse materials, such as pine nuggets, may be applied to a depth of 4", but don't allow mulch to accumulate to a greater depth. If mulch is already present, check the depth. Do not add mulch if there is a sufficient layer in place (2"-3”).

- "Volcano mulching," or mulch applied too deeply, hinders oxygen exchange to roots, which stresses the plant and causes root rot. Do not place mulch on top of a tree's rootball or against the trunk. More than about an inch of mulch on the rootball of newly planted trees and shrubs can stress plants because mulch can intercept water meant for the roots.

- If mulch is piled against the trunk, pull it back several inches to uncover the base of the trunk and the root flare. Mulch piled against tree trunks holds moisture against the trunk, and stems and trunks that remain constantly wet are prone to root rot. Mulch piled high against the trunks of young trees may also create habitats for rodents that chew the bark and can girdle the trees.

- Mulch out to a tree's drip line or beyond, at least an 8-foot diameter around the tree. Remember that in a forest environment, a tree's entire root system (which usually extends well beyond the drip line) would be mulched.
How Much Mulch?

Bulk quantities of mulch are sold in cubic yard volumes. To calculate the amount of mulch you need, first measure the area to be mulched, in square feet. Next convert the desired depth to a fraction of a foot. For example, 3" divided by 12" equals $\frac{1}{4}$ ft. or 0.25 ft. Multiply this fraction by the square foot measurement of the area to be covered ($\frac{0.25}{100}$ square feet = 25 cubic feet). Convert cubic feet to cubic yards by dividing cubic feet by 27 ($\frac{25}{27} = 0.926$). To cover a 100-square-foot area to a depth of 3", you will need 0.926 cubic yards of mulch.

Florida Yard Tip: Calibrating Irrigation Systems

Follow these steps to determine how much water your irrigation system is applying:

- Set several similar, flat-bottomed, straight-sided cans (all must be of equal size) in various places within one watering zone. Tuna cans work well for this.

- Pour the water from all containers into one container. Measure the depth of the water to the nearest 1/8".

- Divide the measurement by the number of containers to determine the average amount of water applied in that zone in 15 minutes.

- In the future, water the area only as long as it takes to apply $\frac{1}{2}$" to $\frac{3}{4}$" of water.


Thick blankets of fine mulch can become matted and may prevent water and air from seeping through, or become like potting soil and may support weed growth. Rake old mulch to break up any matted soil and to refresh the appearance.

Organic mulches may require weeding and replenishment once or twice a year to maintain a total depth of 2"–3".

Do not use cypress mulch because harvesting from the wild depletes wetlands.

Shell, crushed stone or pebbles can be used as mulch but they won’t contribute to the soil’s nutrient and organic content or water-holding capacity. Limestone and shell both raise soil pH. They also reflect heat, increasing the water needs of plants.
Water-Wise Advice

Get practical advice on state-of-the-art irrigation systems from several sources:

- The water management districts (http://www.dep.state.fl.us/secretary/watman/) and Florida Irrigation Society (http://www.fisstate.org/) provide information on irrigation system selection, maintenance and appropriate watering practices.

- If you are changing areas of your landscape from turf to trees or planted beds, consult with your county's UF/IFAS Extension office or with the Natural Resources Conservation Service regarding watering options.

- If you are in the market for a new irrigation system, find a reputable certified irrigation contractor who has experience with these systems.

- A free inspection of irrigation system efficiency is available in some areas through the Natural Resources Conservation Service and water management districts' Mobile Irrigation Labs. For contact information in the south Florida area, please visit: http://www.sfwmd.gov/images/pdfs/splash/spl_mobile_irrig.pdf

Recycled Mulch

Search locally for sources of recycled mulch. Sometimes you can even acquire mulch for free! Here are some tips on obtaining recycled mulch products:

- Use mulch that originates in your own landscape, such as leaves, pine needles, grass and shrub clippings.

- Local power companies, municipal solid waste departments and tree services may supply free or low-cost utility mulch and may sometimes deliver bulk quantities. Try to get only mulch from trimming. It is generally more disease-free than mulch from other sources, such as roots.

- Team up with other homeowners and have bulk quantities delivered to your neighborhood.

- Check the phonebook for commercial suppliers of mulch made from recycled materials.

- If you need lots of mulch for a new landscape, place an ad in the local newspaper so suppliers come to you.