

Drainage & Soil Moisture

Each plant label (see **Figure 2**) identifies the plant's preferred soil moisture environment:

 very dry ↔  very wet

SCALE

 Droughty Soil (very dry)

 Dry Soil

 Sometimes Moist Soil

 Consistently Moist Soil

 Wet Soil (very wet)



Coastal



In-land

 Prefers Neutral or Slightly-Alkaline Soil

 Tolerates Highly Alkaline, Calcareous, Sandy soils

 Tolerates Nutrient-Depleted Soil

 Adapted to Extreme Sun or Part Shade

 Adapted to Extreme Shade

 Moderate to High Salt Tolerance



Florida-Friendly
Landscape™ Selection

Drainage & Soil Moisture Key

This key was developed to categorize SW FL soil moisture and drainage conditions. Use this key when choosing Florida-Friendly and native landscape plants.

 **Droughty Soil (very dry)** Extremely fast-draining sandy, dry, shell-filled, gravelly and xeric soils typical in coastal areas, barrier islands, dunes, roadways and un-improved lots. Install only drought-tolerant, Florida-Friendly and native plants on these soils. Use a rain gauge to measure daily rainfall and supplement drought-prone plantings with irrigation water every two or three days in the dry season. Lawns on these soils dry out extremely rapidly (daily without rainwater or irrigation). Lawns may show drought symptoms within 24-48 hours

 **Dry Soil** Moderately dry, sandy or drought-prone soil typical on more inland or raised lots and along the banks of stormwater ponds and lakes. These soils are slightly better holding water and fertilizer. These soils may contain 1 to 3 percent organic matter. In the shade, these drought-prone soils appear darker even when saturated. These soils hold minimal amounts of water in reserve for plants to use through dry periods. Landscape plants requiring moderate amounts of water are still subject to drought stress. These soils remain very dry most of the year but remain wetter longer. They rarely have standing water. Even a light rain provides some benefits to drought-stressed plants. Install only drought-tolerant Florida-Friendly plants.

 **Sometimes Moist Soil** These sometimes moist, well-draining sandy "fill" soils hold more water, staying continuously saturated for short periods (12 hours up to 2 days). This soil results from compaction caused by heavy construction, lawn maintenance or foot traffic. Find this soil in low spots, yard borders or drainage ditches. Highly erodable, fertilizers used on these soils can leach or wash easily into local waterways. These soils may originate as sub-soil & used as 'fill' for depressions, along canals, home foundations, walkways or roadway edges. The erosive forces of rainwater coming from a downspout can percolate and wash out nutrients in these soils over time. These soils are ideal for creating small rain gardens using native plants and wildflowers.

Necklace-Pod

Sophora tomentosa var. occidentalis

GREAT NATIVES for TOUGH PLACES



ht. 6-10': The **NON-NATIVE** Necklace-Pod is a dense, multi-trunked shrub w/yellow flowers attracting butterflies & hummingbirds. 6" long fruit pods are long-lasting. Tolerant of wind blown salt only. Fast-growing. Requires minimal pruning, irrigation & pest control.



Figure 2. Sample plant identification label for Florida Yards & Neighborhood's demonstration landscape at the Eco-Living Center at Rutenberg Park, 6490 South Pointe Blvd, Ft Myers, FL. A landscape tour is offered at 10:30AM each Wednesday. Call Claudia at 533-7514 or register for a class at: <http://leeparks.org>

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<http://www.gardeningsolutions.ifas.ufl.edu>



Lee County

Florida Yards & Neighborhoods



Testing Landscape

Soils



Florida-Friendly Landscapes™ are attractive, low maintenance landscapes which protect our natural resources by conserving water, reducing pollution & waste, creating wildlife habitat, and preventing soil erosion. Learn more at our display garden at Rutenberg Park.



<http://lee.ifas.ufl.edu>

Organic Soil Amendments

- By using organic soil amendments derived from living organisms (e.g., manures, compost, biosolids, leaves, peat moss, grass clippings etc.), much needed organic matter (OM) is added to soil. Varying in physical and chemical properties, these products improve the water holding capacity of soil, reduce soil compaction by improving soil structure and improve drainage.
- Products containing too high a carbon (C) content can prevent available soil nitrogen (N) for plant uptake. To avoid this problem, choose only organic amendments with a C to N ratio < 30:1 (Table 1).
- For best results, thoroughly mix with soil,

Table 1. Carbon to nitrogen ratios of selected organic amendments.

Organic Amendment	C/N Ratio
Sawdust	400-600
Straw	80
Lawn clippings	31
Aged Manure	20
Biosolids	7

Soil Testing in the Home Landscape

Why take a soil test?

- Prevent nutrient deficiencies as well as application of unneeded fertilizer.

How do I take a soil sample?

- Identify areas for testing (**Figure 1**).
- Scrape off all surface vegetation
- Obtain a small amount of soil from 10-15 spots in the selected area from the top 6 inches of soil
- Mix the 10-15 samples together after removing any plant material or mulch
- Do not mix cores from “good” and “bad” areas.
- Spread soil out on newspaper to dry.



Figure 1: Choose soil sample zones of similar plant types like turf grass, ornamental beds or vegetable garden. Photo credit: Tyler Jones, UF/IFAS.

Consistently Moist Soil These mostly sandy ‘fill’ soils drain more slowly than ‘Sometimes Moist Soil,’ but typically stays moist for extended periods (both in the dry and the wet season). Find it in older yards, playgrounds, drainage ditches at the end of the street, abandoned drain fields or low spots shared by multiple yards. Over-watering makes these soils stay wet longer than the rest of the yard. They are consistently wet or may appear as muck soil especially after heavy rainfall. Landscape plants growing in this soil may benefit from slightly higher nutrient or nitrogen content and humus applied as compost or organic matter. They may exhibit micro-nutrient deficiencies faster (Iron, Manganese, Magnesium, etc.) especially when growing palms. This soil may have originated as sub-soil dug to raise the elevation of a building lot. They may contain higher clay content, tend to compact with heavy foot traffic and appear waterlogged on a weekly basis.

Wet Soil (very wet) Naturally wet, mostly sandy soil exists thanks to mother nature (salt marshes, cypress mounds, swamps, etc.). Wet soil may be constructed to hold water (man-made detention ponds, retention basins, man-made lakes, canals, drainage basins or preserve). They are almost always wet or waterlogged sandy, muck soils. In rare droughts lasting 6 months or longer, they may occasionally dry out. Usually, they stay saturated continuously and require plants that can tolerate constant flooding (aquatic and littoral plant types). Even infrequent and light rainfall creates waterlogged and very wet soil.

Created by Tom Becker, Extension Agent, Lee County, Florida Yards & Neighborhoods, 239-533-7515, 6/10

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<http://www.sfwmd.gov>



What lab & soil test form should I use?

- Lab:** University of Florida Extension Soil Testing Lab (ESTL)
- Form:** Landscape and Vegetable Garden Producer Test available on-line at

http://soilslab.ifas.ufl.edu/ESTL_files/SSI8700.pdf

How much is each soil test?

Test A: Soil pH and lime requirement

Cost: \$3.00/sample

Test B: Soil pH, P, K, Ca, Mg, Lime and Fertilizer requirement

Cost: \$7.00/sample

Send sample + check or money order to:

IFAS Analytical Services Laboratories

Extension Soil Testing Laboratory

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