Florida Yard Tip:

Site Analysis

To choose the right plants for your yard, determine your site characteristics, remembering that conditions may differ at various points throughout your yard. This site characteristics listing isn’t complete. Use it as a springboard to begin your yard’s site analysis.

SOIL
- Texture (% of sand, silt and clay)
- pH
- Nutrients present
- Compaction

DRAINAGE
- Well-drained
- Poorly drained

LIGHT
- Full sun
- Partial sun
- Shade

TEMPERATURE
- Exposure to freezing temperatures
- Exposure to extreme heat

STRUCTURAL LIMITATIONS
- Power lines
- Underground utilities
- Septic tank
- Roof overhangs
- Paved surfaces
- Security lights

OTHER
- Exposure to salt spray or salty well water
- Exposure to strong wind
- Exposure to wet/dry seasonal extremes

FYN Glossary Box

Soil Texture: the relative proportions of sand, silt and clay in a soil; clay is the smallest particle size, and clay soils tend to hold water and nutrients well and drain poorly; conversely, soils containing a large proportion of sand, the largest particle size, tend to drain well and do not hold water and nutrients well.

Soil pH: the degree of acidity or alkalinity of soil.

FLORIDA NATURAL AREAS INVENTORY: http://www.epa.gov/watertrain/
REDUCE STORMWATER RUNOFF

Since the formation of the EPA and the passage of the Clean Water Act, great strides have been made toward maintaining and restoring water quality throughout the United States. This has been accomplished through regulating point sources of pollution, such as smokestacks and sewage discharge. But a more diffuse source of pollution — nonpoint source (NPS) pollution — threatens Florida's ecosystems.

Many of Florida's water resources are especially susceptible to pollution because of our unique geology and climate. Floridians obtain most of their drinking water from ground water supplies. Ground water often lies near the surface, covered by porous limestone and sandy soils, both of which allow water to infiltrate rapidly. Dissolved pollutants reach ground water through a process called leaching. These impurities affect the quality of our drinking water. Heavy rainfall, typical during Florida's rainy season, is a major cause of leaching and stormwater runoff. Surface waters in Florida such as lakes, streams, rivers and estuaries are very sensitive to even small amounts of pollution.

FYN Glossary Box

Point source pollution: water pollution that results from water discharges into receiving waters from easily identifiable points; common point sources of pollution are discharges from factories and municipal sewage treatment plants

Nonpoint source (NPS) pollution: NPS pollution cannot be pinpointed to a single source. Over time, pollutants from our everyday activities accumulate on the land. Examples of NPS pollutants include gasoline, fertilizer, pesticides and even soil. NPS pollution is a problem when rainfall or heavy irrigation carries sediments and dissolved chemicals to waterways in stormwater runoff and by leaching or percolating through soil

Stormwater runoff: water that runs off impervious or water-saturated surfaces, transporting sediments and dissolved chemicals into nearby waters

10. Enjoy! Photograph the evolution of your Florida-Friendly Yard, and share pictures with the horticulture agent or FYN program coordinator at your county’s UF/IFAS Extension office. Let us learn from your experience and share your knowledge with others. “Before” and “after” shots with captions are particularly useful to illustrate your success.

Photo by: UF/IFAS

Learning how to plant a Florida-Friendly Yard can start at a young age.

Photo by: UF/IFAS

Elementary students select plants for their butterfly garden.

http://www.epa.gov/OWOW/NPS/facts/
Don’t forget to list other landscaping materials you may need for walkways, mulch or borders. Read more about selecting plants beginning on page 30.

8. **Buy quality plants.** Choose the healthiest plants you can find. Slip plants out of pots to inspect roots. Healthy roots are white and smell like damp soil; diseased roots are brown to black and often have a sour or rotting odor. Roots that are growing in a circle inside the bottom of the pot indicate a rootbound plant. Purchase another plant, if possible.

For trees, purchase the largest size you can afford. However, shrubs, perennials, groundcovers, annuals and smaller size plants will grow just as quickly as their pricier counterparts in larger pots. Take care to space and plant things properly. Allow enough space for each plant to grow to maturity. For tips on planting trees, see page 22.

9. **Maintain.** Maintenance includes proper watering, fertilizing, composting, pruning, mowing, mulching and pest management. The more thorough you are with steps 1–8 above, the less you will have to worry about maintenance. It is possible to maintain an established landscape with minimal amounts of pesticide, fertilizers and supplemental water. Watering efficiently, fertilizing appropriately and managing yard pests responsibly are all part of proper landscape maintenance.

A healthy, properly maintained lawn absorbs stormwater runoff, protecting Florida’s natural waters. If stormwater runoff is not absorbed and contains unused nitrogen and phosphorus from fertilizers, when these chemicals enter natural waterways, they can fuel abundant algal blooms that smother natural vegetation, deplete oxygen and possibly kill fish. These nutrients, if applied improperly, can cause invasive weeds to flourish, changing Florida’s natural plant communities. More alarming, potentially harmful substances, such as common household pesticides and fertilizers, are leaching into our water supply. These materials damage aquatic life and harm people, too. These substances that are washed from and through soil in stormwater runoff form NPS pollution.

Following FYN landscaping guidelines will reduce nonpoint sources of pollution. A properly designed and managed landscape can help slow down and filter stormwater runoff.

### Making Every Raindrop Count

One of the basic concepts of a Florida-Friendly Yard is that rain that falls in your yard should soak into your yard. After all, rainfall is an excellent water source for your landscape, and reducing runoff protects waterways. Retaining rainfall long enough for it to percolate through soil is challenging in neighborhoods built on compacted fill soils. Consider these practical tips for reducing the amount of rainfall that runs off your yard.

- **Downspouts.** If your roof has rain gutters, aim the downspouts at a porous surface so water can soak into soil. Be sure water doesn’t pool next to buildings.

  **Helpful hint:** If you decide to landscape the area where downspouts drain, choose plants adapted to wet/dry extremes.

- **Earth Shaping.** Incorporate attractive, functional earth shaping into your landscape. Swales (small dips in the ground) and berms (raised earthen areas) can help divert runoff that would otherwise rush from your yard. A densely growing turfgrass or groundcover...
proves especially useful to capture rainwater, filter nutrients, recharge ground water and reduce soil erosion.

In a waterfront yard with a seawall, use a berm and swale combination to reduce stormwater runoff. Add a maintenance-free zone of native wetland plants to a berm or swale to make your yard more waterfront-friendly.

**Helpful hint:** Minor alterations to the lay of the land won’t require permits or engineers, but any major earthwork should have a professional touch and will require regulatory review. Also, check with your local Florida DEP office before making any changes to shorelines.

Rain Barrels and Cisterns. These ancient technologies are making a comeback as water shortages prompt homeowners to save and use rain that falls on their properties. Large plastic rain barrels are now available at some home and garden stores. FYN also offers rain barrel workshops in some counties where you can learn to build your own. The barrel has a hole in the top where a roof downspout can fit snugly. A valve near the bottom allows you to fill a watering can or connect a hose.

Barrels are great for hand watering, and they are not mosquito breeding grounds if the downspout fits tightly. If your barrel is open at the top, use *Bacillus thuringiensis* (Bt) products (often sold in a donut form) to kill mosquito larvae in an environmentally safe way. If you happen to have algae take root in your rain barrel, treat the water with submersible bacterial packets sold in pond supply stores. A rain barrel reduces water pollution by reducing stormwater runoff.

6. **Incorporate an irrigation plan.** In-ground irrigation systems are not necessary in every landscape, especially if you use drought-resistant plants. Research your irrigation needs and determine which type of system, if any, you want to install. Consider this tip: While plants are becoming established in your yard, you may want a temporary watering system. It is convenient and usually worth the effort. Add any new irrigation plans to your drawing. Read more about irrigation techniques and water conservation strategies on pp. 41–45.

7. **Select landscape materials.** When choosing plants, consider the limitations of your site, maintenance requirements and wildlife value. Consult gardening books and plant lists specific to Florida (start with the plant list at the back of this book). It’s wise to write both the common and scientific name (*genus* and *species*) into your plan; common names can cause confusion when it is time to buy plants.

**FYN Glossary Box**

*Genus* (plural, *genera*): a group of similar organisms representing a category within a family; a genus consists of one or more species

*Species*: a group of plants, animals or other organisms that resemble each other and interbreed freely
If you have a sprinkler system, be sure to note the spray coverage. Once the yard’s “bones” are on your drawing, sketch where various activities will take place. Consider views: Is there a view from indoors that you want to enhance with plants that attract birds or butterflies? Is there scenery you would like to hide?

If you live on the water, place intensively maintained plantings, such as turfgrass and vegetable gardens, away from the water’s edge to reduce the potential for polluted runoff to reach surface waters. In many circumstances, a “no fertilizer, no pesticide” zone of at least 10 feet along the shoreline significantly reduces pollution from upland areas. Never allow fertilizers or pesticides to enter water directly.

5. **Add the landscape plan to the sketch.** Determine the types of plants you want in different locations. Do not worry about specific plant identification yet — just draw in where you want trees, shrubs, groundcovers or flowering plants. Keep plants away from buildings to give them room to grow and to make building maintenance easier. Note the ultimate plant height you desire in each area. Group plants according to their water needs. This makes watering more efficient and keeps plants healthier.

Barrel is not unsightly, but a four foot shrub easily shields it from view.

A cistern also catches rain, but requires more engineering and greater storage capacity than a rain barrel. Water from a roof is collected, filtered and stored in a container made of concrete, metal, wood, fiberglass or plastic. Water travels from the cistern upon demand by either gravity feed or pump action.

**Helpful hint:** Currently in Florida, water obtained from a cistern is only for non-potable uses, such as landscape watering. In other words: Do not drink it! Before building a cistern, check with local authorities to make sure that it is not against the law in your area.

**Porous Surfaces.** Whenever possible, use bricks, gravel, turf block, mulch, pervious concrete or other porous materials for walkways, driveways or patios. These materials allow rainwater to seep into the ground, helping to filter pollutants and reducing the amount of runoff from your yard. In some cases these porous materials may even cost less to install than typical paving materials.

**Helpful hint:** A cost comparison of some pervious surfaces can be found in Table 5 (see page 96).
3. **Analyze the existing site.** Walk around your property, noting conditions that make your yard unique. Does your site demand plants that are tolerant of cold, wind, full sun, shade, drought, occasional flooding or salt spray? Do you know your soil’s pH and nutrient content? Not sure what kinds of information to note as you walk your yard? See page 14 for a list of ideas to get started.

Look at existing plants and decide which ones you want to keep. Plants that always seem to have one problem or another throughout the year are good candidates for removal. For other tips on deciding which plants to keep or remove, see page 18.

Soil plays a big part in any landscape project, determining the success of your efforts and influencing what plants will thrive in your yard. Before beginning any landscape project, take a soil sample to your county’s UF/IFAS Extension office for testing. Read more about soil on page 16.

4. **Draw a land-use plan.** Don’t be nervous — you do not have to be an artist to tackle this step! Round up the tools you will need: a pencil, ruler and graph paper. If you have the survey completed for your mortgage, photocopy it — it is really helpful at this stage. On the graph paper, draw your house, penciling in existing trees and shrubs you want to keep. If your yard includes a septic tank, underground utilities or overhead power lines, include these on your

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Table 5. **Comparison of Surfaces for a 15’x30’ Driveway (450 sq. ft)**

<table>
<thead>
<tr>
<th>Material</th>
<th>Depth</th>
<th>Relative Cost*</th>
</tr>
</thead>
<tbody>
<tr>
<td>Melaleuca Mulch</td>
<td>2&quot;</td>
<td>$</td>
</tr>
<tr>
<td>Municipal Waste Mulch</td>
<td>2&quot;</td>
<td>$</td>
</tr>
<tr>
<td>Recycled Yard Waste</td>
<td>2&quot;</td>
<td>FREE</td>
</tr>
<tr>
<td>Compost</td>
<td>2&quot;</td>
<td>$</td>
</tr>
<tr>
<td>Washed Shell</td>
<td>2&quot;</td>
<td>$</td>
</tr>
<tr>
<td>Gravel</td>
<td>2&quot;</td>
<td>$</td>
</tr>
<tr>
<td>Recycled Tire mulch</td>
<td>1.5&quot;</td>
<td>$</td>
</tr>
<tr>
<td>Red Mulch</td>
<td>2&quot;</td>
<td>$</td>
</tr>
<tr>
<td>Lime rock</td>
<td>2&quot;</td>
<td>$</td>
</tr>
<tr>
<td>River Rock</td>
<td>2&quot;</td>
<td>$</td>
</tr>
<tr>
<td>Pine Bark</td>
<td>2&quot;</td>
<td>$</td>
</tr>
<tr>
<td>Concrete (plain)</td>
<td>4&quot;</td>
<td>$$$$</td>
</tr>
<tr>
<td>Concrete (stamped)</td>
<td>4&quot;</td>
<td>$$$$$</td>
</tr>
<tr>
<td>Asphalt</td>
<td>1.5&quot;</td>
<td>$$$-$$$$</td>
</tr>
</tbody>
</table>

* $=<$200 total cost; $$=$200-499; $$$=$500-999; $$$$$=$1000-2999; $$$$$=>$3000